IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF FLORIDA

UNITED STATES OF AMERICA,	)	
	)	
and	)	
	)	
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION,	)	
	)	
Plaintiffs,	)	Civil Action No. 8:15-cv-02286-JWD-TBM
	)	
v.	)	
	)	
MOSAIC FERTILIZER, LLC,	)	
	)	
Defendant.	)	

NOTICE OF LODGING OF CONSENT DECREE

The United States, by authority of the Attorney General of the United States and through the undersigned attorneys, hereby notifies the Court that, pursuant to 28 C.F.R. § 50.7, the Consent Decree submitted to this Court on September 30, 1015 (ECF No. 2), was ***lodged*** in this civil action in connection with the filing of the Complaint commencing this action against Mosaic Fertilizer, LLC (Mosaic). The United States further notifies the Court of the lodging herewith of the Appendices to the Consent Decree (which were too voluminous to include with the submission of the Consent Decree in connection with the filing of the Complaint). Mosaic is one of the world's largest manufacturers of finished phosphate fertilizer products. Mosaic manufactures or manufactured phosphoric acid, sulfuric acid and/or ammoniated fertilizers at six production facilities in Florida, at Bartow, Riverview, Green Bay, New Wales, South Pierce, and Mulberry, Florida. A similar Complaint and Consent Decree in the Eastern District of Louisiana alleges violations at two Louisiana facilities as well.

The Consent Decree, if entered, will fully resolve the claims alleged in the Complaint by Plaintiffs, the United States and the Florida Department of Environmental Protection, against Mosaic, for violations of Sections 3004 and 3005 of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C.A. §§ 6924 and 6925, and the implementing regulations at 40 C.F.R. Parts 261, 262, 263, 264, 265, 268 and 270 that govern the identification, management and treatment, storage and disposal of hazardous waste, and specifically involve the commingling of hazardous wastes with wastes exempted from RCRA regulation under the Bevill Amendment for mineral processing wastes pursuant to 40 C.F.R.
§ 261.4(b)(7)(ii) (D) and (P).

As part of the settlement, Mosaic has already or will implement comprehensive waste containment and spill prevention measures to better manage its wastes; make a RCRA hazardous

waste determination of all its solid wastes; manage any identified hazardous waste in compliance with RCRA requirements; end commingling of hazardous wastes with Bevill-Exempt wastes; inspect and correct any deficiencies in its Phosphogypsum Stack Systems; and complete all site assessment and Corrective Action Work as required by RCRA.

Mosaic also has agreed to provide financial assurance to cover the estimated $1.8 billion needed to fund all closure and long-term care obligations at all of its Florida and Louisiana facilities. The company further will pay a civil penalty of $4.1 million for its past violations, to be split between the United States and the Florida Department of Environmental Protection, which is a co-plaintiff in this action. The proposed Consent Decree resolves only the specific violations alleged in the Complaint. Due to the volume and length of the various Attachments to the Consent Decree, and the need to have presented the Consent Decree to the Court during the past fiscal year, the United States is hereby filing the Attachments to the previously filed CD (ECF No. 2) as four separate Exhibits to this Notice.

The proposed Consent Decree is subject to a public notice and comment period before it may be entered. Pursuant to Paragraph 102 of the proposed Consent Decree, and 28 C.F.R. § 50.7, the public will have thirty days in which to submit comments to the United States Department of Justice on the proposed Consent Decree. The thirty-day period will begin on the date that notice of the lodging of the proposed Consent Decree is published in the Federal Register.

After the public comment periods have expired, the United States will inform the Court of any public comments received and any responses thereto. If, after reviewing the public comments, the Environment and Natural Resources Division of the United States Department of Justice concludes that the proposed Consent Decree should be entered, the United States will

seek its entry as a final order of the Court. ***Because of the public comment period, we respectfully request that the Court not execute the proposed Consent Decree at this time.***

WHEREFORE, plaintiff respectfully requests that this Court ***receive the proposed Consent Decree for lodging only***, and that it refrain from acting upon the same until the period for public comment has expired and the United States has moved for entry of the proposed Consent Decree.

Dated: October 1, 2015

Respectfully submitted,
JOHN C. CRUDEN
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CERTIFICATE OF SERVICE

I certify that I am an employee of the Department of Justice, and that I caused true copies of the foregoing Notice of Lodging and attached Appendices to the Consent Decree, to be served on October 1, 2015, via overnight express, email, or the electronic court filing system, on counsel or other representatives for Defendant Mosaic Fertilizer, LLC and the Florida Department of Environmental Protection as follows:

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/s/ Thomas P. Carroll
THOMAS P. CARROLL

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Appendices to the Proposed Consent Decree

Exhibit 1 of 4

Appendices 1 through 2

APPENDIX 1

APPENDIX 1- OPERATING AND CLOSURE REQUIREMENTS FOR THE PHOSPHORIC ACID PRODUCTION INDUSTRY IN FLORIDA

ATTACHMENT A: SITE ASSESSMENT, REPORTING, AND CORRECTIVE ACTION

SAMPLING AND ANALYSIS WORKPLAN

Defendant's obligations pursuant to this Attachment A are governed by Paragraphs 20 and 23 of the Consent Decree.

1) The Defendant shall submit to FDEP and/or EPA for approval an Outline for a Sampling and Analysis Workplan ("Outline"), for carrying out the required monitoring, testing, analysis, and reporting.

2) The Defendant shall submit to FDEP and/or EPA a Sampling and Analysis Workplan ("Workplan"), unless Defendant has already submitted a Sampling and Analysis Workplan that has been approved by FDEP and/or EPA and is consistent with this Attachment.

3) The Sampling and Analysis Workplan shall be designed to determine the presence, magnitude, extent, direction, and rate of movement of any hazardous waste, hazardous constituents, and/or constituents of concern ("COC") within and beyond the Facility boundary. COCs shall be limited to those contaminants that are reasonably likely to be found at the Facility. The Workplan shall document the procedures the Defendant shall use to assess sampling and analysis data that is generated and that relate to the purposes of this Attachment. The Workplan shall also document the procedures the Defendant shall use to conduct those activities necessary to: characterize the source(s) of contamination; characterize the potential pathways of contaminant migration; define the degree and extent of contamination; and identify actual or potential human and/or ecological receptors. The Defendant may implement the work contained in the Workplan in a multi-phased approach. A specific schedule for expeditious implementation of all activities shall be included in the Workplan. At a minimum, the Workplan for assessment shall include the following *[All requirements below would be Facility-specific]:*

    (a) A sediment and/or soil, as appropriate, sampling and analysis section to collect and analyze representative sediment and/or soil samples to determine the nature and extent of potential contamination, both vertically and horizontally. Areas of sampling shall include process areas, areas of historical spills and/or historical contamination, areas of waste management, other Facility operation areas (to be defined), stormwater and non-Process Wastewater ditches and ponds, and ditches associated with National Pollutant Discharge Elimination System ("NPDES") outfall(s). The Workplan must define the number, location, and depth of the samples, and the parameters for analysis. The number of samples shall be

sufficient to produce a 95% confidence level that the results are representative of the environmental conditions found at each location.

(b) A Surface Water (including Run-Off) sampling and analysis section to determine the nature and extent of any contaminated Surface Water flowing from the portions of the Facility adjacent to and down-gradient from the unlined areas of Facility operations (to be defined). The Workplan shall define the number, location, and depth of samples, and the parameters for analysis.

(c) A Groundwater sampling and analysis section to characterize the Groundwater quality and the extent of any Groundwater contamination, both vertically and horizontally, that may be migrating from Defendant's Facility. This shall include unlined areas, and/or lined areas which do not meet the requirements of Attachment C, within the Facility operations (including the Phosphogypsum Stack System and other impoundments and ponds). The Workplan shall define the number, location, and depth of Groundwater samples (either from existing wells included in the current Groundwater monitoring program, temporary wells, or direct-push technology), and the parameters for analysis.

(d) Upon confirmation of the existence of hazardous waste, hazardous constituents and/or COCs in Groundwater emanating from the Facility beyond the "zone of discharge," a section addressing a potable well survey within a ½ mile radius of the Facility including a schedule for sampling of each well, and the parameters for analysis shall be included. Upon confirmation of an exceedance of State Groundwater standards in any of the potable wells, the well survey will be extended by ½ mile radial increments in the appropriate direction depending on the results of the initial well survey.

(e) A survey that identifies any Wetlands, creeks, or lakes within a one (1) mile radius down gradient and beyond the Defendant's property boundaries (not including public roadside ditches). This survey should also identify any such bodies of water that are used for public recreational purposes or may contain endangered species.

(f) A Project Management Plan.

(g) A Data Collection Quality Assurance Project Plan for new sampling and analysis.

(h) A Data Management Plan for new sampling and analysis.

(i) A Community Relations Plan (if appropriate).

(j) A timeline for work detailed above and a schedule for the submission of progress

reports, including a draft Sampling and Analysis Report, and a final Sampling and Analysis Report.

4) Concurrent with the submission of the Sampling and Analysis Workplan, the Defendant shall submit a Health and Safety Plan with respect to the work to be performed.

5) Upon receipt of FDEP's and/or EPA's approval of the Workplan, the Defendant shall implement the approved Workplan pursuant to the terms and schedules contained therein. Upon completion of the Agency-approved sampling activities proposed in the Workplan, the Defendant shall submit to FDEP and/or EPA for approval a draft Sampling and Analysis Report, pursuant to the requirements and schedule contained in the approved Sampling and Analysis Workplan. Upon approval of the draft Sampling and Analysis Report by FDEP and/or EPA, the Defendant shall submit a final Sampling and Analysis Report.

6) FDEP and/or EPA acknowledge that the Defendant may have completed some of the tasks required by this Attachment and/or that the Defendant has available pertinent information and data required by this Attachment. This previous work may be used to meet some of the requirements of this Attachment, upon submission to and written approval by FDEP and/or EPA.

7) The Defendant shall develop background levels for minerals, metals, and naturally occurring materials in order for results to be compared to determine what the appropriate clean-up/action level for a particular constituent of concern.

ADDITIONAL WORK

8) Based on work performed under the Workplan described above, FDEP and/or EPA may determine that additional monitoring, testing, analysis, and/or reporting is necessary to ascertain the nature and extent of any hazard to human health or the environment that may be presented by the presence or release of hazardous wastes and/or hazardous constituents at or from the Facility. If FDEP and/or EPA determine that such additional work is necessary, FDEP and/or EPA will notify the Defendant in writing and specify the basis for its determination that additional work is necessary.

MINIMUM QUALIFICATIONS FOR PERSONNEL

9) All work performed by or for the Defendant pursuant to this Attachment shall be under the direction and supervision of an individual who has demonstrated expertise in hazardous waste site investigation. Before any work is performed, the Defendant shall submit to FDEP and/or EPA, in writing, the name, title, and qualifications of the supervisory personnel and of any contractors or subcontractors to be used in carrying out the terms of this Attachment.

Additionally, the Defendant shall ensure that when a license is required, only licensed individuals shall be used to supervise any work required by this Attachment.

QUALITY ASSURANCE/QUALITY CONTROL

10) All new sampling and analysis conducted under this Attachment shall follow Chapter 62-160 F.A.C. for sample analysis. The contact person(s), name(s), address(es), and telephone number(s) of the analytical laboratories the Defendant proposes to use must be specified in the applicable workplan.

11) All workplan(s) required under this Attachment shall include data quality objectives for each data collection activity to ensure that data of known and appropriate quality are obtained and that data are sufficient to support their intended use(s).

12) The Defendant shall monitor to ensure that high quality data are obtained by its consultant or contract laboratories. FDEP and/or EPA may reject any data that does not meet the requirements of the approved workplan or approved analytical methods and may require re-sampling and additional analysis.

13) The Defendant shall ensure that appropriate chain-of-custody procedures are specified in the workplan. Such procedures shall include, but not be limited to: standardized field tracking reports to establish sample custody in the field prior to shipment, pre-pared sample labels containing all the information necessary for sample tracking; identification of responsible party at a laboratory who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered into the sample custody records; use of sample custody Log consisting of serially numbered standard lab-tracking report sheets; and specification of laboratory sample custody procedures for sample handling, Storage and dispersement for analysis.

14) FDEP and/or EPA may conduct a performance and Quality Assurance/Quality Control ("QA/QC") audit of the laboratories chosen by the Defendant before, during, or after sample analyses. Upon request by FDEP and/or EPA, the Defendant shall have its laboratory perform analyses of samples provided by FDEP and/or EPA to demonstrate laboratory performance. If the audit reveals deficiencies in a laboratory's performance or QA/QC, re-sampling and additional analysis may be required.

SAMPLING AND DATA/DOCUMENT AVAILABILITY

15) The Defendant shall submit to FDEP and/or EPA the results of all sampling and/or tests or other data generated by, or on behalf of, the Defendant pursuant to the requirements of this Attachment.

16) The Defendant shall notify FDEP and/or EPA, in writing or by electronic mail, at least ten

(10) days in advance of engaging in any field activities at the Facility conducted pursuant to this Attachment. At the request of FDEP and/or EPA, the Defendant shall provide, or allow FDEP and/or EPA or its authorized representatives to take, split and/or duplicate any of the samples collected by the Defendant pursuant to this Attachment. Similarly, at the request of the Defendant, FDEP and/or EPA will allow the Defendant or its authorized representatives to take split and/or duplicate any of the samples collected by FDEP and/or EPA under this Attachment, provided that such sampling shall not delay FDEP and/or EPA's proposed sampling activities. Nothing in this Attachment shall limit or otherwise affect FDEP's and/or EPA's authority to collect samples pursuant to applicable law, including, but not limited to, RCRA and/or CERCLA.

RISK ASSESSMENT AND CORRECTIVE ACTION

17) If Defendant confirms the existence of any hazardous waste, hazardous constituents, or COCs exceeding the higher of either (i) action levels established through either the implementation of the Facility's 3013 Order, or Appendix A-1, or (ii) background concentrations where appropriate, and (a) such exceedances are found within or beyond the Facility boundary in soil, sediment, or Surface Water and/or (b) such exceedances may be emanating from the Facility in Groundwater at or beyond the "zone of discharge" (collectively, "Exceedance"), then the Defendant shall consult with FDEP and may either:

a) Pursuant to Chapter 62-780 F.A.C., cleanup such hazardous waste, hazardous constituents, or COCs to the cleanup target levels set forth in Chapter 62-777 F.A.C., or cleanup criteria provided in Rule 62-780.680, F.A.C.; or

b) Conduct a risk assessment to demonstrate that Corrective Action Work is not warranted. Should Defendant choose to conduct a risk assessment, it shall submit for approval a Risk Assessment Plan to FDEP and/or EPA, within forty-five (45) days of confirming the Exceedance. The Risk Assessment Plan shall address both environmental and human receptors potentially affected by the Exceedance and shall contain, but not be limited to the following elements: description of the Facility; scope of the risk assessment; identification and description of the hazardous waste, hazardous constituents or COCs; description of sampling methods and collection strategies; exposure assessment (including identification of exposure pathways); toxicity assessment; and risk characterization. If necessary, the Defendant shall contact FDEP and/or EPA and obtain any publicly available guidance or models that will assist in the development of the Risk Assessment Plan and the subsequent Risk Assessment Report. A Risk Assessment satisfactorily performed pursuant to Rule 62-780.650 F.A.C. (Risk Assessment), and approved by FDEP or EPA satisfies the requirements of this Subparagraph 17b. If Defendant submits a Risk Assessment Plan, then:

i) The Defendant shall begin implementation of the work under the Risk Assessment

Plan within thirty (30) days of written approval by FDEP and/or EPA of the Risk Assessment Plan; and

ii) The Defendant shall submit a written Risk Assessment Report to FDEP and/or EPA within ninety (90) days after completion of the work under the Risk Assessment Plan. The Risk Assessment Report must include the following information at a minimum: a description of the risk assessment; a summary of the results of the risk assessment; a summary of the problems encountered in doing the risk assessment; and an explanation of the activities that need to be taken to address the risks identified by the assessment. If the conclusion is that there is no unacceptable risk to human health or the environment, within the meaning of pertinent standards or guidance, the report may request a No Further Action determination for some or all of the areas of investigation, which FDEP shall process and may grant, pursuant to the Florida Phosphogypsum Rules and applicable state law. The Defendant shall contact FDEP and/or EPA and obtain any publicly available guidance or models that will assist in the development of the Risk Assessment Report.

18) If FDEP and/or EPA determine by applying their then-existing rules, standards, criteria, or guidelines and after considering the available data, and including, where applicable, the final Sampling and Analysis Report that Defendant submitted in accordance with Paragraph 5, and/or the Risk Assessment Report that Defendant submitted in accordance with Paragraph 17, that an Exceedance exists that presents a risk to human health or the environment, the Defendant within ninety (90) days after notification by FDEP and/or EPA shall:

a) Submit for approval a Corrective Action Plan to FDEP and/or EPA. The Corrective Action Plan must include sections addressing: (1) the identification and evaluation of potential remedial alternatives for the Exceedances that have been identified at the Facility; and (2) those actions appropriate to remediate, control, prevent or mitigate the Exceedance. The Corrective Action Plan shall, as appropriate, address the relevant factors listed in Rules 62-780.690(1-4) and 62-780.700(1-6), F.A.C. If necessary, the Defendant shall contact FDEP and/or EPA and obtain any publicly available guidance or models that will assist in the development of the Corrective Action Plan and associated reports. Corrective Action Work under this Paragraph that is performed pursuant to Rules 62-780.690 (Natural Attenuation Monitoring) or 62-780.700, F.A.C. (Active Remediation), and approved by FDEP or EPA, shall be deemed to satisfy the requirements of this Paragraph 18.

i) The Defendant shall begin implementation of the Corrective Action Work under the portion of the Corrective Action Plan addressing the identification and examination of the potential alternative remedies within sixty (60) days after receiving written approval from FDEP and/or EPA. The Defendant shall, within ninety (90) days after completion of the identification and examination work, submit to FDEP and/or EPA a Corrective Action Evaluation Report which includes an evaluation of each remedial

alternative, including all information gathered and studies conducted (*e.g.*, bench scale or pilot tests). This Report must contain adequate information to enable FDEP and/or EPA to make a decision as to the adequacy and appropriateness of the corrective action selection.

ii) Defendant will be notified by FDEP and/or EPA, upon review of the Corrective Action Evaluation Report, if no further action is required or which selected remedies need to be implemented at the Facility. If determined that Corrective Action Work is needed, FDEP and/or EPA will review, evaluate, and approve the selected Corrective Action Work from the Corrective Action Evaluation Report, reject any alternative provided in the report or direct Defendant to develop a different remedial alternative or corrective action performance standard.

(1) FDEP and/or EPA will draft a statement of basis and seek public comment. FDEP and/or EPA will consider public comments regarding the proposed

corrective measures. FDEP and/or EPA will make publicly known the final decision regarding the selected corrective measures.

(2) If FDEP and/or EPA determine that Corrective Action Work is needed, the Defendant shall submit a Corrective Action Work Implementation Plan within one hundred and twenty (120) days after receiving notification to implement Corrective Action Work as directed by FDEP and/or EPA. The Corrective Action Work Implementation Plan shall include, at a minimum, sections addressing: engineering design; construction, operation and maintenance; monitoring and performance monitoring; waste management; health and safety plan; schedule; corrective measure goals; reporting requirements; and, if required, public participation.

iii) The Defendant shall submit to FDEP and/or EPA a Corrective Action Certification Report within forty-five (45) days after completion of the corrective measures. The Corrective Action Certification Report shall contain the following minimum information: a description of the Corrective Action Work completed; summaries of results and documentation of attainment of performance requirements; summaries of all the problems encountered; summaries of accomplishments and/or effectiveness of Corrective Action Work; and a certification of completion signed by the Defendant and by an independent, registered Professional Engineer skilled in the appropriate technical discipline(s). The Corrective Action Certification Report will be reviewed by FDEP and/or EPA for adequacy and will be subject to public comment if required. Upon determination that Corrective Action Work has been completed, FDEP and/or EPA will issue a No Further Action determination. Nothing in this section shall preclude the Defendant from requesting a No Further Action determination concerning discrete areas where Corrective Action Work concerning that area has

been completed, which FDEP shall process and may grant pursuant to the Florida Phosphogypsum Rules and applicable state law.

19) If during the implementation of the Corrective Action Plan, information comes to the attention of the Defendant that waste units or areas of concern may pose an imminent and substantial endangerment to human health or the environment, the Defendant shall notify FDEP and/or EPA by the next business day.

a) The Defendant, within thirty (30) days of such notification, shall submit for approval to FDEP and/or EPA an Interim Measures Plan designed to mitigate any imminent and substantial endangerment to human health or the environment. The Interim Measures Plan shall include at a minimum: engineering design; construction, operation and maintenance; monitoring and performance monitoring; waste management; health and safety plan; schedule; corrective measure goals; reporting requirements; and, if required, public participation.

b) The Defendant shall submit an Interim Measures Report to FDEP and/or EPA after completion of the interim measures conducted under this Consent Decree. The Report shall at a minimum include: a description of interim measures implemented; summaries of results; summaries of problems encountered; and summaries of accomplishments and/or effectiveness of the interim measures.

c) The Defendant shall contact FDEP and/or EPA and obtain any publicly available guidance or models that will assist in the development of the Interim Measures Plan and the Interim Measures Report.

d) Nothing in Paragraphs 17 and 18 above shall restrict EPA's residual authorities under Paragraph 23 and 82 of the Consent Decree and RCRA.

APPENDIX A-1

Screening Criteria- Action Levels for Assessment of Corrective Action

I. Definition

Action levels are conservative health-based concentrations of hazardous wastes and/or hazardous constituents determined to be indicators for the protection of human health or the environment. Action levels shall be set by FDEP and/or EPA for all hazardous wastes and/or hazardous constituents identified through Attachment A which FDEP and/or EPA has reason to believe may have been released in soils, sediments, or Surface Water, or in Groundwater (at or beyond the zone of discharge) from the Facility into the environment. Should the concentration of hazardous wastes and/or hazardous constituents in soils, sediments, or Surface Water, or in Groundwater (at or beyond the zone of discharge) exceed the action levels established for any environmental medium, FDEP and/or EPA may require the Respondent to conduct a Risk Assessment and/or perform Corrective Action. If FDEP and/or EPA determine that concentrations of hazardous wastes and/or hazardous constituents released from the Facility, below established action levels, may pose a substantial threat to human health or the environment given site-specific exposure conditions, cumulative effects, ecological concerns or other factors, then FDEP and/or EPA may require a Risk Assessment pursuant to Paragraph 17b of Attachment A.

Action levels shall be concentration levels that satisfy the following criteria.

II. Soils

Action levels for constituents in soils shall be derived from the most stringent of levels established by FDEP or EPA's Regional Screening Levels. Pursuant to FDEP's Corrective Action Program, industrial soil levels may be applied for onsite soil as long as the current site use remains industrial.

III. Sediment

Action levels are not available for constituents in sediment. Screening levels (not action levels) for constituents in sediment shall be concentrations that will be established using:

1. Sediment Quality Assessment Guidelines (SQAGs). The marine and freshwater guidelines are located at: http://www.dep.state.fl.us/water/monitoring/sediments.htm

2. For those parameters for which there is no SQAG, the latest Sediment and Soil Screening Values for ecological risks as calculated by FDEP and/or EPA (Region 4 Cleanup Ecological and Health Risk Assessment Bulletins (RAGS Supplement)) will be applied as screening levels (not action levels) to identify site-specific constituents for

which action levels shall be established.

IV. Groundwater

Action levels for constituents in Groundwater at or beyond the zone of discharge shall be concentrations specified as:

1. Maximum Contaminant Levels ("MCLs") established at 40 C.F.R. Part 141, or the applicable state law or Facility permit requirements for the State in which the Facility is located, these action levels must meet appropriate aquatic water quality criteria if it is determined through the process outlined in Attachment A that Groundwater has the potential to impact Surface Water.

2. For facilities where the MCL is the most stringent standard for individual contaminants, if the Natural Background exceeds the MCL, representative Natural Background will be the default Groundwater standard, unless the applicable state law or Facility permit is more stringent than Natural Background for that contaminant, in which case the applicable state law or Facility permit will provide the appropriate standard for that contaminant.

V. Surface Water

Action levels for constituents in Surface Water shall be concentrations specified as:

1. The more stringent of FDEP and/or EPA Surface Water Screening Values for ecological risk;

2. If action levels are not available from the screening values, Ambient Water Quality Criteria as established by the Clean Water Act will be used.

APPENDIX 1- OPERATING AND CLOSURE REQUIREMENTS FOR THE PHOSPHORIC ACID PRODUCTION INDUSTRY IN FLORIDA

ATTACHMENT B: GROUNDWATER AND ZONE OF DISCHARGE REQUIREMENTS

I. Zone of Discharge Requirements

A. Establishment of the Zone of Discharge

Subject to the modification provisions set forth in Section I.B. (Modifications to an Established Zone of Discharge or Monitoring Requirements) of this Attachment:
(1) No zone of discharge shall be allowed into potable Groundwater, unless authorized by FDEP (including by permit) before the effective date of the Consent Decree or by this Attachment. Unless state law or a state-issued permit provides otherwise, zones of horizontal discharge shall extend no farther than to the Facility's current property boundary or the existing permitted boundary, where a permit applies, unless, after consultation with Mosaic, FDEP determines that a smaller zone of discharge will afford necessary protection to the designated use of adjacent surface Waters outside the zone of discharge at a cost that is commensurate with the benefits to the public of such protection. Vertical zones of discharge shall be maintained where permitted prior to the date of entry of the Consent Decree.

(2) Where multiple sites occur within close proximity, a single zone of discharge for the sites may be established at the discretion of FDEP and/or EPA.

(3) Within the zone of discharge, if a Statistically Significant increase in contaminant concentration (including corrosivity) in Groundwater is discovered, which EPA or FDEP determines constitutes an imminent and substantial endangerment to human health and/or the environment, then the hazard shall be addressed in accordance with Section I. D. (Zone of Discharge-Corrective Action) of this Attachment.

B. Modifications to an Established Zone of Discharge or Monitoring Requirements

(1) At any time, FDEP and/or EPA, after consultation with each other, may revise the zone of discharge and/or monitoring requirements for any of the reasons described in (1)(a) through (e) of this Section. Also, Mosaic may petition for a modification in the zone of discharge and/or monitoring requirements for any of the reasons described in (1)(a) through (e) of this Section.

(a) Monitoring data indicate that the discharge plume has resulted or may foreseeably result in a violation of applicable water quality standards beyond the boundary of the existing zone of discharge;

(b) Continuation of the existing zone of discharge will impair the designated use of underground sources of drinking water or the Surface Waters immediately affected by the Groundwater;

(c) Continuation of the existing zone of discharge may result in an imminent and substantial

endangerment to human health or the environment;

(d) The monitoring data provided by Mosaic are inadequate to allow a determination of compliance with applicable zone of discharge limitations and the owner fails to provide reasonable additional data requested by FDEP and/or EPA; or

(e) A change in the chemical, physical, or microbiological composition, or the volume or the location of the discharge, requires a change in the zone of discharge or the monitoring scheme to assure compliance.

(f) If FDEP determines that other information is necessary to ascertain if a modification to the zone of discharge is warranted, Mosaic must submit such additional information upon request. Mosaic also shall provide any such additional information requested by EPA.

(2) Mosaic may petition FDEP in writing, with a copy provided to EPA, to extend its zone of discharge for certain specified water quality parameters. FDEP, in consultation with EPA and pursuant to Florida Administrative Code 62-520.470, Modification Procedures for Zones of Discharge or Monitoring Requirements, shall approve such extension if Mosaic affirmatively demonstrates that conditions (a) through (d) below are met:

(a) The discharge shall not significantly impair any designated use of the receiving ground water, or surface water;

(b) The discharge shall not in the foreseeable future result in a violation of applicable ground water standards in a currently used source of drinking water outside the zone of discharge;

(c) The discharge shall not prevent persons within the proposed zone of discharge from enjoying the reasonable and beneficial use of their property; and

(d) The economic and social benefits of a zone of discharge extending beyond the property boundary outweigh the economic, environmental, and social costs resulting from the extended zone of discharge, taking into account the feasibility of preventative measures or corrective actions.

(e) Mosaic shall provide a copy of the petition to the property owners of the property underlain by the proposed extended zone of discharge by certified mail return receipt requested within 10 Days from submitting the petition to FDEP and EPA. A copy of each certified mail return receipt shall be provided to the appropriate permitting program in FDEP District office where the permit was issued.

(f) If FDEP determines that other information is necessary to ascertain if an extension to the zone of discharge is warranted, Mosaic must submit such additional information upon request. Mosaic also shall provide any such additional information requested by EPA.

(3) Nothing in this Section shall limit or affect EPA's assertion of its residual authorities to disapprove a revision or modification to a zone of discharge, notwithstanding approval by FDEP.

EPA shall provide notice to Mosaic within 90 Days of FDEP approval if EPA does not concur with that decision.

C. Zone of Discharge Monitoring Requirements

(1) All Mosaic Facilities shall comply with this Section unless a FDEP or EPA issued permit or order contains an approved Groundwater monitoring plan or there exists another Groundwater monitoring plan that satisfies the requirements of this Section that has already been approved by FDEP and/or EPA;

(2) Monitoring Plan Requirements.

(a) Using pertinent information (including the examples listed from (b)(i) through (xiii) below), Mosaic shall provide FDEP and/or EPA with a plan containing findings and recommendations for Groundwater monitoring derived from site-specific information. The Groundwater monitoring plan shall be signed and sealed by the professional geologist or Professional Engineer who prepared or approved it. The plan shall show the locations of the proposed background and downgradient monitoring wells, construction details of the monitoring wells, and a water sampling and chemical analysis protocol. The plan shall indicate how to determine background or Natural Background (where available) quality of the Groundwater in the vicinity of the site and any deviations in the quality of the receiving Groundwater in the downgradient monitoring wells, except in cases where background levels are already established and agreed upon by FDEP and/or EPA. FDEP and/or EPA will evaluate the adequacy of the plan upon submittal.

(b) The following information is generally required unless otherwise specified by FDEP and/or EPA.

(i) Hydrogeological, physical and chemical data for the site, such as:

1. Direction and rate of Groundwater flow, background Groundwater quality (all field verified), and Natural Background Groundwater quality where available;

2. Porosity, horizontal and vertical permeability for the Aquifer(s);

3. The depth to, and lithology of, the first confining bed(s);

4. Vertical permeability, thickness, and extent of any confining beds;

5. Topography, soil information and Surface Water drainage systems surrounding the site;

6. Geophysical methods such as ground penetrating radar surveys;

(ii) Disposal rate and frequency, chemical composition, method of discharge, pond volume, spray-field dimension, or other applicable site specific information;

(iii) Toxicity of waste;

(iv) Present and anticipated discharge volume and seepage rate to the receiving Groundwater; and physical and chemical characteristics of the Leachate;

(v) Phosphogypsum Stack System water balance;

(vi) Other Pollution sources located within one mile radius of the Facility about which Mosaic has information or knowledge;

(vii) Inventory depth, construction details, and cones of depression of water supply wells or wellfields and monitoring wells located within one mile radius of the Facility or potentially affected by the discharge;

(viii) Facility specific economic and feasibility considerations;

(ix) Chronological information on water levels in the monitoring wells and water quality data on water samples collected from the water supply and monitoring wells;

(x) Type and number of waste Disposal/waste Storage facilities within the Facility;

(xi) Chronological information on Surface Water flows and water quality upstream and downstream from the Facility;

(xii) Construction and operation details of waste Disposal/waste Storage facilities;

(xiii) Relevant land use history of construction and land development adjacent to the Facility.

(3) Monitoring Wells.

(a) On a quarterly basis, or such other agreed frequency, Mosaic shall submit reports to FDEP and/or EPA on all monitoring wells indicating the type, number and concentration of discharge constituents or parameters indicated by the report.

(b) The reports must also include:

1. Monitor well location, construction, and the collection and testing of samples; and

2. Groundwater monitoring data displayed in graphic form for analyzing trends in water quality.

(c) Location of Monitoring Wells to Detect Migration of Contaminants. Unless Mosaic can demonstrate that detection can be obtained by a methodology other than the use of monitoring wells, wells shall be located as follows:

1. One up-gradient well located as close as possible to the site, without being affected by that site's discharge, to determine the background, or Natural Background quality where available, of the Groundwater (background well);

2. One well at the edge of the zone of discharge downgradient from the site (compliance wells);

3. Minimum of three (3) wells downgradient from the site and within the zone of discharge designed to detect the chemical, physical, and microbiological (if applicable) characteristics of the discharge plume (intermediate well); and

4. Such other wells as are dictated by the complexity of the hydrogeology of the site, the magnitude and direction of the plume or the likelihood of threat to the public health or the environment, to ensure adequate and reliable monitoring data in generally accepted engineering or hydrogeological practice.

(d) When requested by FDEP and/or EPA, Mosaic shall inform FDEP and/or EPA of the next sampling schedule so that a representative of either Agency may be present.

D. Zone of Discharge-Corrective Action Work

(1) Subject to Paragraphs 20 - 23 of the Consent Decree, Mosaic shall submit a Corrective Action Plan per D(3) below if FDEP and/or EPA determines that:

(a) The plume is confirmed beyond the zone of discharge, or

(b) The plume is likely in the foreseeable future to threaten to impair the designated use of an underground source of drinking water or Surface Water immediately affected by the Groundwater, or

(c) Within the zone of discharge, a Statistically Significant increase in contaminant concentration (including corrosivity) in Groundwater is discovered that presents a potential or actual hazard to human health and/or the environment outside of the zone of discharge.

(2) In the event (b) above applies, Mosaic may make a demonstration to FDEP and/or EPA that Corrective Action Work is not needed because the Groundwater impacts will not migrate to cause exceedances of applicable Groundwater standards and criteria beyond the permitted ZOD, or result in a violation of applicable Surface Water quality standards and criteria outside a permitted mixing zone.

(3) If a Corrective Action Plan is required pursuant to D(1) and Mosaic has not made a satisfactory demonstration under D(2), Mosaic shall submit, to FDEP and/or EPA a Corrective Action Plan pursuant to the requirements of Paragraph 18 of Appendix 1, Attachment A and Paragraph 27 of the Consent Decree. The Corrective Action Plan must provide, at a minimum, the following information:

(a) Direction of the plume movement in relationship to existing and potential sources of drinking water;

(b) Plume size both in the areal and vertical dimensions;

(c) Rate of migration of the plume;

(d) Level of toxicity of the plume;

(e) Rate at which the plume is being attenuated;

(f) Current and projected future use of adjacent ground and Surface Waters affected by the plume;

(g) A detailed description of the activities that are proposed to be taken to prevent further migration of the plume and to address the contamination or release. Beyond the zone of discharge the Groundwater must meet the more stringent of either the maximum contaminant levels ("MCLs") established at 40 C.F.R. Part 141 or the applicable Florida law or Facility permit requirements[1];

(h) The costs of Corrective Action Work; and

(i) A comparison of the clean up or other Corrective Actions Work costs with the benefits to the public of such Corrective Action Work.

(4) If requested by FDEP and/or EPA, Mosaic will provide within thirty (30) Days, unless directed otherwise, any additional information or data needed so as to aid FDEP and/or EPA in making its Corrective Action Work assessment.

(5) After Mosaic submits the Corrective Action Plan, Mosaic shall perform the Corrective Action Work pursuant to Attachment A, Paragraph18, including Mosaic's submission of a Corrective Action Measures Evaluation Report and a Corrective Action Certification Report in accordance with Paragraph 18.

[1] For facilities where the MCL is the most stringent standard for individual contaminants, if the Natural Background exceeds the MCL, representative Natural Background will be the default Groundwater standard, unless Florida law or the Facility permit is more stringent than Natural Background for that contaminant, in which case Florida law or the Facility permit will provide the appropriate standard for that contaminant.

APPENDIX 1- OPERATING AND CLOSURE REQUIREMENTS FOR THE PHOSPHORIC ACID PRODUCTION INDUSTRY IN FLORIDA

ATTACHMENT C: PHOSPHOGYPSUM STACK SYSTEM CONSTRUCTION AND OPERATIONAL REQUIREMENTS

I. Phosphogypsum Stack System General Criteria

Phosphogypsum Stack Systems. The purpose of this document is to ensure the physical integrity of impoundments used to manage Phosphogypsum and Process Wastewater generated during the course of production of phosphate fertilizer. This document establishes minimum design, construction, operation, inspection, and maintenance requirements to ensure that Phosphogypsum Stack System impoundments meet critical safety standards and do not cause unplanned releases to the environment. Owners/Operators of Phosphogypsum Stack Systems are required to maintain inspection logs and to develop and maintain plans to respond to emergency conditions.

(1) Performance standards. A Phosphogypsum Stack System shall be designed, constructed, operated, maintained, closed, and monitored throughout its design period to control the movement of waste and waste constituents into the environment so that Groundwater and Surface Water quality standards and criteria will not be violated outside the applicable zone of discharge specified for the system.

(2) Operation Plan. Except for Phosphogypsum Stack Systems for which an Operation Plan has already been prepared, within six (6) months of the Effective Date of the Consent Decree, the owner/operator of a Phosphogypsum Stack System shall have an Operation Plan that provides written, detailed instructions for the daily operation of the system. The Operation Plan shall be kept at or near the Facility and shall be accessible to operators of the system.

(3) Groundwater monitoring. The Facility shall perform Groundwater monitoring and reporting as prescribed in Attachment B: Groundwater and Zone of Discharge Requirements, of this Appendix.

(4) Surface Water management. Phosphogypsum Stack Systems shall be operated to provide for the collection, control, recycling and treatment of surface runoff from the systems as necessary to meet the applicable water quality standards of the State of Florida.

(5) Leachate management. Any Leachate emanating from a Phosphogypsum Stack System shall be routed to a Cooling/Surge Pond to be contained within the system or recirculated to the production plant or if discharged, treated if required to meet the applicable water quality standards of the State of Florida.

(6) Interim Stack System Management Plan ("ISSMP"). Except for Phosphogypsum Stack Systems for which an ISSMP has already been submitted, within six (6) months of the Effective

Date of the Consent Decree, the owner/operator of each Phosphogypsum Stack System shall compile and submit an ISSMP for approval to the FDEP and/or EPA. The approved ISSMP and subsequent revisions shall be made available to the FDEP and/or EPA upon request. The ISSMP shall provide instructions for two (2) years of operation and management of the specific Phosphogypsum Stack System should a shutdown occur such that no phosphoric acid will be produced at the Facility for up to a two-(2)-year period. By July 1 of each following year, the owner/operator shall revise the ISSMP, taking into account the Process Wastewater levels and the existing configuration of the Phosphogypsum Stack System as of June 1 of that year. The ISSMP shall be designed to protect human health and the environment and shall include:

(a) A detailed description of Process Wastewater management procedures that will be implemented so that the Stack System operates in accordance with all applicable requirements. The procedures shall address the actual Process Wastewater levels present at the Facility as of June 1 of each year and shall assume that the Facility will receive average annual rainfall during the two-(2)-year planning period;

(b) A detailed description of the procedures to be followed for the daily operation and routine maintenance of the Stack System (including required environmental sampling and analyses) as well as for any maintenance or repairs recommended following annual inspections of the system;

(c) Identification of all machinery, equipment and materials necessary to implement the plan as well as actions that would be taken to assure the availability of these items during the planning period;

(d) Identification of the sources of power or fuel necessary to implement the plan as well as the actions that would be taken to assure the availability of power or fuel during the planning period; and

(e) Identification of the personnel necessary to implement the plan, including direct labor required for paragraphs (a) and (b) above, and any necessary direct supervisory personnel, as well as the actions that would be taken to assure their availability and any required training of these personnel.

(7) No ISSMP is required for Phosphogypsum Stack Systems that are closed, that are undergoing closure, or for which an application for a closure permit has been submitted, where permitting requirements apply.

II. Assessment of Existing Perimeter Dikes for Phosphogypsum Stack Systems[2]

(1) Except for Perimeter Dikes that have already been approved by the EPA or FDEP as meeting or equivalent to the criteria set forth in (1)(b)(i)-(iii) below, within six (6) months of the Effective Date of the Consent Decree, the owner/operator of a Phosphogypsum Stack System

2 Mosaic has completed the requirements of this Section.

shall submit to the FDEP or EPA documentation that existing Perimeter Dikes have either been:

(a) Assessed and certified by a Third-Party Engineer post January 2005, to have been constructed or modified to address Freeboard, Perimeter Dike seepage, factors of safety, and slope stability, in accordance with a permit issued by the FDEP in response to an application, where permitting requirements apply; or

(b) Engineered or retrofitted such that they are assessed and certified by a Third-Party Engineer to be in compliance with the following:

(i) Cross section design

(A) Both Inside and Outside slopes shall be no steeper than two horizontal to one vertical.

(B) The design shall provide positive seepage control features such as:

1. Cut-off trench in natural soil foundations

2. Clay core or other impermeable core material

3. Blanket Drain

4. Chimney Drain and Toe Drain

5. Geomembrane or composite Liner on Inside slope

(C) The top of the Perimeter Dike shall include a roadway that will permit wheeled vehicles. Unless the Perimeter Dike is constructed with compacted clay and is accessible through the crest road, the design shall also incorporate an all-weather roadway near the downstream Toe that will permit wheeled vehicle traffic around the perimeter of the Perimeter Dike for purposes of inspection of the slope, Toe and natural ground beyond the Toe, as well as maintenance.

(ii) Freeboard provisions

(A) The design Freeboard of an above-grade Perimeter Dike shall not be less than five (5) feet unless a design Freeboard of less than five (5) feet is justified based on results of seepage and stability analyses and Wave Run-up analyses. However, in no event shall the design Freeboard of an above-grade Perimeter Dike be less than three (3) feet.

(iii) Design factors of safety and slope stability

(A) Stability analysis. A seepage or flow net analysis shall be made, when applicable, for use in the stability analysis. The stability analysis shall consider the minimum fluid level as well as the fluid level at the design Freeboard on the upstream slope of the

Perimeter Dike, and possible fluctuations of the tail water level.

(B) Design safety factors – The Engineer shall use the following minimum safety factors: 1.75 for horizontal shear at base of fill; 1.5 for horizontal shear within the fill due to seepage through the outer face; 1.5 for horizontal shear or circular arc failure through the foundation soils; 1.5 for protection against shear failure of any circular arc in either Inside or Outside slope. It is imperative that water pressure distribution be included in the analyses; or

(c) Evaluated by a Third-Party Engineer who certifies the safety and stability of the Perimeter Dikes in accordance with (1)(b)(iii) of this Section; or

(d) Evaluated by a Third-Party Engineer who certifies the safety and stability of the Perimeter Dikes meet an alternate design safety factor and this alternate design safety factor has been approved by FDEP and/or EPA.

(2) Within nine (9) months of a final determination that a Perimeter Dike's safety and stability cannot be certified in accordance with (1)(b)(iii) of this Section, the owner/operator shall submit to the FDEP and/or EPA for approval, a proposal to upgrade or retrofit the Perimeter Dike to comply with the requirements of II.(1)(b) of this Attachment, or to take the Perimeter Dike out of service as soon as practicable but no later than ninety (90) days after a final determination that the Perimeter Dike's safety and stability cannot be certified and that the Perimeter Dike cannot or will not be upgraded or retrofitted to comply with the requirements of II(1)(b).

(3) The owner/operator of any Perimeter Dike in need of upgrade, retrofit, or de-servicing, shall implement, within six (6) months of the FDEP's and/or EPA's approval of the proposal submitted in accordance with (2), above, interim measures recommended by a Third-Party Engineer that will ensure the safety and stability of the Perimeter Dike until such time as it is upgraded or retrofitted or taken out of service**.** These interim measures must be submitted to the FDEP and/or EPA for approval.

(4) At the time of the assessment performed pursuant to (1)(b) or (1)(c) of this Section, a Third-Party Engineer shall also determine whether the existing system is equipped with Process Wastewater conveyance/containment capabilities that conform to the following design requirements:

(a) Conveyance ditches, pumps, pipes, and hydraulic structures located within a Phosphogypsum Stack System shall have adequate capacity to circulate the Process Wastewater stream(s), if applicable, and to contain or transfer runoff on the Process Watershed upstream of the water control structures resulting from a storm event generating a 100-year rainfall in twenty-four (24) hours while maintaining at the same time the design Freeboard of the Perimeter Dike. If provisions are made to contain some or the entire storm surge resulting from such event within the Phosphogypsum Stack System upstream from the conveyance system or water control structures, then the transfer capacity of the ditches, pumps, pipes, and related structures may be reduced accordingly.

(5) Within one year of a final determination that a system does not meet the design criteria of

(4)(a) of this Section, the owner/operator shall submit to the FDEP and/or EPA for approval, a proposal to modify the system to attain compliance. Such modification shall be completed as soon as practicable, but not later than fourteen (14) months after the owner/operator receives all necessary governmental permits or other prior approvals, whichever shall later occur**.**

III. Construction of New Perimeter Dikes

(1) Design

(a) Site investigation. The general area desired for construction of a Perimeter Dike shall be carefully inspected by an Engineer prior to selection of the exact location for the Perimeter Dike. Areas of uneven natural subsidence, sinkholes, pockets of organic matter, or other unstable soils shall be avoided, unless special provisions are made for their mitigation.

(b) Soil testing**.** A program of soil sampling and testing adequate to determine the characteristics of the foundation material that will support the proposed Perimeter Dike and of the material to be used for construction of the Perimeter Dike shall be performed. Sampling shall include borings, test pits, or in-place samples from the associated exposed excavation face. All borings and/or test pit explorations shall be logged using a recognized engineering soil classification system, with location and depths of all samples recorded on the Log. Tests to determine in-place densities, shear-strength, and permeabilities of the foundation and embankment soils shall be performed. Tests on foundation soils shall be performed either on undisturbed samples or on the in-place soil. Tests on embankment soils shall be performed on samples remolded to the densities and moisture contents to be used in construction.

(c) Cross section design:

(i) The crest on the top of the Perimeter Dike shall be graded toward the Inside or the Outside slope. If the Perimeter Dike exceeds ten (10) feet in height and crest runoff is directed toward the Outside slope, runoff controls shall be used to protect the Outside slope against erosion. Both Inside and Outside slopes shall be no steeper than two and one-half (2.5) horizontal to one (1.0) vertical. Seepage control shall be provided by means of a Liner constructed in accordance with Section VI: Construction Requirements for New Phosphogypsum Stack Systems or Lateral Expansions of Existing Phosphogypsum Stack Systems, of this Attachment, placed on the Inside slope of the Perimeter Dike.

(d) Freeboard provisions:

(i) The design Freeboard of an above-grade Perimeter Dike shall not be less than five (5) feet unless a design Freeboard of less than five (5) feet is justified based on results of seepage and stability analyses and Wave Run-up analyses. However, in no event shall the design Freeboard of an above-grade Perimeter Dike be less than three (3) feet.

(e) Design factors of safety and slope stability of Perimeter Dikes:

(i) Stability analysis. A seepage or flow net analysis shall be made, when

applicable, for use in the stability analysis. The stability analysis shall consider the minimum fluid level as well as the fluid level at the design Freeboard on the upstream slope of the Perimeter Dike, and possible fluctuations of the tail water level.

(ii) Design safety factors for Perimeter Dikes – The Engineer shall use the following minimum safety factors for Perimeter Dikes: 1.75 for horizontal shear at base of fill; 1.5 for horizontal shear within the fill due to seepage through the outer face; 1.5 for horizontal shear or circular arc failure through the foundation soils; 1.5 for protection against shear failure of any circular arc in either Inside or Outside slope. It is imperative that water pressure distribution be included in the analyses.

(2) Site preparation. In accordance with specifications provided by the Engineer, ground that will become the foundation of Perimeter Dikes shall be stripped of vegetation and organic detritus or residue, including muck, mud, slimes, or other material which would flow or undergo excessive consolidation under heavy loading. All earth foundation surfaces on which fill is to be placed shall be scarified or moistened and compacted prior to spreading of first course of fill material, and the Perimeter Dike base shall be well drained during construction, except when placing hydraulic fill.

(3) Material to be used. Material used for Perimeter Dikes shall be free of extraneous matter that could affect the compactability, density, permeability, or shear strength of the finished Perimeter Dike (e.g. stumps, vegetation, trees, palmettos, debris). Tailings may be used for Perimeter Dike fill when such a completed Perimeter Dike will meet the seepage and structural requirements above.

(4) Process Wastewater control design. Conveyance ditches, pumps, pipes, and hydraulic structures located within a Phosphogypsum Stack System shall have adequate capacity to circulate the Process Wastewater stream(s), if applicable, and to contain or transfer runoff on the Process Watershed upstream of the water control structures resulting from a storm event generating a 100-year rainfall in twenty-four (24) hours, while maintaining at the same time the design Freeboard of the Perimeter Dike. If provisions are made to contain all or part of the storm surge resulting from such event within the Phosphogypsum Stack System upstream from the conveyance system or water control structures, then the transfer capacity of the ditches, pumps, pipes, and related structures may be reduced accordingly.

(5) Methods of construction:

(a) Each new Perimeter Dike shall be constructed to meet or exceed the minimum safety requirements of this Section and the specifications and design for that Perimeter Dike. Appropriate earthmoving equipment shall be used to place materials in Perimeter Dike construction. The soil shall be compacted and density tests shall be performed to ensure that the designed densities are obtained. A representative of the Third-Party Engineer shall be present on the site during construction of the Perimeter Dike and Liner, and during construction and installation of spillways and penetrations through the Perimeter Dike or Liner. The FDEP and EPA shall be advised of the date on which construction of a new Perimeter Dike will begin.

(b) Areas around any water level control structure pipe, any other conduit, or any surface of discontinuity between materials within the mass of the Perimeter Dike shall be carefully inspected to avoid potential concentration of seepages and to ensure that soils under and around a culvert are uniformly compacted and are in continuous contact with the external culvert surface. All penetrations through the Liner on the upstream slope of the Perimeter Dike shall be made using water tight joints or connections and shall be capable of maintaining their integrity under anticipated in-use conditions. All pipes and joints in pipes or conduits extending through a Perimeter Dike shall be made leak-proof and shall be constructed of materials suitable for the fluids carried and the load imposed. In order to avoid leaks associated with differential settlement, conduits through Perimeter Dikes shall not be rigidly supported by piles or piers. Backfill around conduits shall be of a density that is equal to or greater than those of the surrounding embankment. Particular attention shall be devoted to the lower third of the conduit.

IV. Operational Requirements for Perimeter Dikes

(1) All Perimeter Dikes shall be operated so as to maintain the design Freeboard, unless temporary incursions into the Freeboard are demonstrated to be safe in accordance with IV(2), below. Each Perimeter Dike shall be inspected as prescribed in this document.

(a)Vegetative cover adequate to inhibit wind and water erosion shall be established and maintained on the Outside slope of the Perimeter Dike. Such vegetation shall be maintained sufficiently low to permit visual inspection of the soil surfaces and critical areas; or

(b) In areas where historically evapotranspiration exceeds precipitation, an alternative method may be used to inhibit wind and water erosion on the Outside slope of the Perimeter Dike. The alternative method must be certified by a Third-Party Engineer as providing erosion protection equivalent to that of a vegetative cover; and

(c) The outside Toe of all operational Perimeter Dikes shall be maintained free of trees, shrubs or other woody plant growth whose roots may induce Piping and compromise integrity of the Perimeter Dike.

(2) Temporary Non-emergency Use of Design Freeboard:

(a) To assure system safety and integrity and to reduce the probability of discharge, a Facility seeking to temporarily utilize the design Freeboard of a Perimeter Dike must maintain the safety and stability of the Perimeter Dike. If the Facility decides to seek temporary use of the design Freeboard, it must demonstrate that safety and stability is maintained using the following mechanisms:

1. An inspection of the Facility;

2. Perimeter Dike design and construction information;

3. Results of seepage and stability analyses (including monitoring of seepage pressures within the Perimeter Dike if such monitoring is deemed necessary); and

4. Wind Surge and Wave Run-up analyses.

(b) A report by a Third-Party Engineer shall specify conditions under which such use may be authorized, such as:

1. Acceptable wind speeds in forecast;

2. Acceptable rainfall levels in the forecast;

3. Increased inspection frequencies; and

4. Weekly monitoring of piezometric levels within the mass of the Perimeter Dike, if and as needed.

(c) This report shall be made available to the FDEP and/or EPA upon request.

(3) A completed new Perimeter Dike shall be thoroughly inspected prior to the placement of Process Wastewater behind it. Spillways and water level control structures shall be certified by a design Third-Party Engineer as meeting all specifications of the design, and degree of compaction of the fill shall also be certified. Legible photographs, either aerial or ground, may be used to document this initial inspection, but shall not in themselves constitute certification. A complete file describing the items inspected and their condition shall be maintained by the Facility.

(4) All Perimeter Dikes and water control structures shall be inspected weekly. Water level elevations and Freeboard compliance shall be determined at least every 12 hours. Piezometric water levels within the Perimeter Dike shall be measured quarterly if piezometers have been installed. The inspections shall be made by a Qualified Company Employee or contractor employed or retained by the owner/operator of the Perimeter Dike. The findings of each inspection shall be recorded in a Log.

(5) Each Perimeter Dike shall be inspected annually by a Third-Party Engineer with experience in the field of construction and operation of Perimeter Dikes. An annual report pertaining to such an inspection shall be prepared and shall include recommendations and corrective measures taken. The report shall be retained by the owner/operator. The annual inspections shall include:

(a) Analyses of seepage or other significant items shown on all aerial photographs of the Perimeter Dike that have been taken for any reason since the date of the last annual inspection.

(b) Condition of soil surfaces and top and slopes of the Perimeter Dike and in areas within fifty feet (50') downstream from the outside Toe.

(c) Review of all periodic inspection reports to evaluate the effectiveness of maintenance done to the Perimeter Dike during the period since the last annual inspection.

(d) Examination and interpretation of data obtained from any instrumentation installed in the mass of the Perimeter Dike.

(e) Condition of spillway and water level control structures, including all conduits exiting the Perimeter Dike.

(6) The following items shall be considered as indicating potential trouble areas that must be documented and closely checked on subsequent inspections and repaired as necessary:

(a) Abnormal dead vegetation or damp areas on the downstream slope, at the Toe of slope, or downstream from the Toe of slope that could be indicative of pond water seepage.

(b) Surface erosion, gullying or wave erosion on the upstream slope of the Perimeter Dike.

(c) Surface erosion or gullying on the downstream slope of the Perimeter Dike.

(d) Erosion below any conduit through the Perimeter Dike near or at the Toe of slope of the Perimeter Dike.

V. New Phosphogypsum Stack Systems or Lateral Expansions of Existing Phosphogypsum Stack Systems

(1) Any Lateral Expansion is considered a new Phosphogypsum Stack and must be constructed in accordance with the applicable requirements of Section VI: Construction Requirements for New Phosphogypsum Stack Systems or Lateral Expansions of Existing Phosphogypsum Stack Systems, of this Attachment.

(2) Except for incidental deposits of Phosphogypsum entrained in the Process Wastewater, placement of Phosphogypsum outside the Phosphogypsum Stack footprint is considered a lateral expansion of the Phosphogypsum Stack System. For the purpose of this Section, the footprint is defined as the outside edge of the Starter Dikes used to contain the placement of Phosphogypsum in the Phosphogypsum Stack.

(3) Except as provided in Attachment E: Critical Conditions and Temporary Measures, Section IV (Emergency Diversion Impoundment), storage or containment of Process Wastewater outside the footprint of the Phosphogypsum Stack System is considered a Lateral Expansion of the Phosphogypsum Stack System. For the purpose of this paragraph, the footprint is defined as the outside edge of the dams, dikes or ditches used to store or contain Process Wastewater.

(4) A completed new Phosphogypsum Stack System, including the Starter Dike, shall be

thoroughly inspected prior to the deposition of Process Wastewater in it. The Liner, spillways and water level control structures shall be certified by a design Third-Party Engineer as meeting all specifications of the design, and the degree of compaction of the fill shall also be certified. Legible photographs, either aerial or ground, may be used to document this initial inspection, but shall not in themselves constitute certification. A complete file describing the items inspected and their condition shall be made available to the FDEP and/or EPA upon request.

(5) Exceptions:
No person shall dispose of, or store prior to Disposal, any Phosphogypsum except within a permitted Phosphogypsum Stack System, in States where permitting requirements apply. This provision shall not be construed to prohibit any use or reuse of Phosphogypsum not otherwise prohibited by law.

VI. Construction Requirements for New Phosphogypsum Stack Systems or Lateral Expansions of Existing Phosphogypsum Stack Systems

(1) Minimum design standards. The requirements of this Section are the minimum standards for constructing a new Phosphogypsum Stack System or a Lateral Expansion after the Effective Date of the Consent Decree.

(2) Run-On Control. Install and maintain a Run-On control system capable of preventing flow during peak discharge from at least a twenty-four (24)-hour, 25-year Rainfall Event.

(3) Run-Off Control. Install and maintain a Run-Off management system to collect and control at least the water volume resulting from a twenty-four (24)-hour, 25-year Rainfall Event.

(4) Liner and Leachate control systems. Phosphogypsum Stacks shall be constructed with composite Liners and Leachate control systems. Auxiliary Holding Ponds and Regional ponds shall be constructed with an HDPE Liner of 60 mils or thicker. Cooling ponds shall be constructed with composite Liners. Process Wastewater conveyances shall be constructed with Liners or pipes.

(a) Phosphogypsum Stack Liners shall be:

1. Constructed of materials that have appropriate physical, chemical, and mechanical properties to prevent failure due to physical contact with the Phosphogypsum, Process Wastewater or Leachate to which they are exposed, climatic conditions, the stress of installation, and other applied stresses and hydraulic pressures that are anticipated during the operational and closure period of the system. The supplier of materials for the Liner components shall provide test information accepted by the Engineer of record, that supports the capabilities of the materials to meet these needs;

2. Installed upon a base and in a geologic setting capable of providing structural support to prevent overstressing of the Liner due to settlements and applied stresses;

3. Constructed so that the bottom of the Liner system is not subject to fluctuations of the Groundwater so as to adversely impact the integrity of the Liner system;

4. Designed to resist hydrostatic uplift if the Liner is located below the seasonal high Groundwater table; and

5. Installed to cover all earth that could come into contact with the Phosphogypsum, Process Wastewater or Leachate.

(b) Phosphogypsum Stack Liner design standards. Phosphogypsum Stacks shall be constructed atop a composite Liner that consists of a Geomembrane in conjunction with a non-synthetic component:

1. The synthetic component of composite Liners shall consist of a 60-mil or thicker High Density Polyethylene (HDPE) or equivalent Geomembrane Liner with a maximum water vapor transmission rate of 0.24 grams per square meter per day as determined by the American Society for Testing and Materials (ASTM) Method E96-80, procedure BW, "Test Methods for Water Vapor Transmission of Materials," Sections 04.06, 08.03, and 15.09, which document is incorporated herein by reference.

2. The non-synthetic component of the composite Liner shall consist of either of the following:

a. A layer of compacted soil at least eighteen (18) inches thick, placed below the Geomembrane, with a maximum hydraulic conductivity of 1×10^{-7} centimeters per second, constructed in six-inch lifts. The Geomembrane Liner component shall be installed in direct and uniform contact with the compacted soil component to retard Leachate migration if a leak in the flexible membrane Liner should occur. Soil materials used within the top twelve (12) inches of the compacted soil layer immediately below the synthetic Liner shall be free from rigid or sharp objects that could damage or otherwise affect the integrity of the Liner; or

b. A layer of mechanically compacted Phosphogypsum at least twenty-four (24) inches thick, placed above the Geomembrane, with a maximum hydraulic conductivity of 1×10^{-4} centimeters per second. No rigid or sharp objects that could damage the Liner may be placed within this compacted layer of Phosphogypsum. Such a layer (of mechanically compacted gypsum) shall not be required for any vertical expansion of a Phosphogypsum Stack where Phosphogypsum slurry is discharged into the expansion area within one year of completion of construction.

3. The non-synthetic component of a Phosphogypsum Stack composite Liner will not be required for vertical expansions under the following conditions:

a. where it has been demonstrated to and approved by the FDEP or EPA that a synthetic Liner alone or in contact with sedimented gypsum placed in slurry form will be equivalent or superior to a composite Liner designed and installed in accordance with the requirements of this Section VI (Phosphogypsum Stack System Construction Requirements); or

b. where it has been demonstrated to and approved by the FDEP or EPA that a synthetic Liner in contact with sedimented gypsum placed in slurry form is equivalent or superior to a composite Liner with twenty-four (24) inches of compacted Phosphogypsum placed above the Geomembrane.

(c) Any proposed composite Liner design shall be accompanied by a detailed construction quality assurance plan, describing in detail how the design will be properly constructed in the field. For composite Liners using compacted Phosphogypsum, the quality assurance plan shall place particular emphasis on protection of the Geomembrane during placement and compaction of the Phosphogypsum, and on prompt placement of Phosphogypsum on the Geomembrane. The construction quality assurance plan must be submitted to the FDEP and/or EPA for approval.

(d) The following Liner design standards must be met:

1. Standards for geosynthetic components.

a. Geomembranes shall have factory and field seams whose shear strengths during testing are at least ninety percent (90%) of the specified minimum yield strength for that lining material, and the failure shall occur in the lining material outside the seam area. All field seams must also be visually inspected and pressure or vacuum tested for seam continuity using suitable non-destructive techniques.

b. No large or rigid objects may be placed in the Phosphogypsum Stack System in a manner that may damage the Liner or Leachate collection system and, with the exception of Liners installed at the Toe of the Phosphogypsum Stack, in no case shall such objects be placed within ten (10) vertical feet of the Liner or Leachate collection system, unless approved by the FDEP and EPA.

c. High density polyethylene (HDPE) Geomembranes shall meet the specification contained in method GRI GM13 or updates thereof.

d. Polyvinyl chloride (PVC) Geomembranes shall meet the specification contained in method PGI 1197 or updates thereof.

e. Interface shear strength of the actual components that will be used in the Liner system shall be tested with method ASTM D5321 or an equivalent test method.

f. In addition, the synthetic Liner material shall be subjected to continuous spark testing or an industry-accepted equivalent test at the production Facility prior to delivery to the site for installation. If the continuous spark testing detects any defect, the tested material must be rejected and not delivered to the site;

(e) Standards for soil components.

1. Soil components of Liner systems shall be constructed to preclude, to the greatest extent practicable, lenses, cracks, channels, root holes, pipes, or other structural inconsistencies that can increase the saturated hydraulic conductivity of the soil component. The design shall illustrate and describe those instances in which over-excavation of permeable areas and backfilling may be necessary to seal the permeable area. The soil component shall be placed and compacted in layers to achieve the design performance.

2. The permeability of soil Liner components shall not be increased above the values specified for the component, as a result of contact with Leachate from the Phosphogypsum Stack System. Compatibility of the soil component and Leachate shall be demonstrated by testing the soil component with actual or simulated Leachate in accordance with EPA Test Method 9100 or an equivalent test method.

3. The soil component of the Liner system may consist of in-situ soils or compacted imported soils, provided they meet the specifications for soil Liners.

4. Specifications for the soil component of the Liner system shall contain at a minimum:

a. Allowable range of particle size distribution and Atterberg limits, to include shrinkage limit;

b. Placement moisture criteria and dry density criteria;

c. Maximum laboratory-determined saturated hydraulic conductivity, using simulated Leachate as the saturating and testing liquid;

d. Minimum thickness of the soil Liner;

e. Lift thickness;

f. Surface preparation (scarification) for tying lifts together; and

g. Type and percentage of clay mineral within the soil component.

5. The soil Liner shall be placed using construction equipment and procedures that achieve the required saturated hydraulic conductivity and thickness. A field test section shall be constructed using the proposed construction equipment and tested to document that the desired saturated hydraulic conductivity and thickness is achieved in the field.

(f) Liner systems construction quality assurance.

1. Liner systems shall have a construction quality assurance plan to provide personnel with adequate information to achieve continuous compliance with the Liner construction requirements. The plan shall include or refer to specifications and construction methods that use established engineering practices to construct a Liner system and provide for

quality control testing procedures and sampling frequencies. Sampling and testing shall be conducted in the field by trained personnel during construction and after construction completion. Such personnel will be under the direction of the construction quality assurance Engineer, to assure the Liner system will comply with the standards. The construction quality assurance Engineer or his designee shall be on-site at all times during construction to monitor construction activities. Construction activities include the time during which the protective layer is installed over the Geomembrane, to ensure that the placement techniques do not cause damage to the Liner system materials.

2. Liner systems shall be installed in accordance with the construction quality assurance plan. Plans that comply with EPA Document EPA/600/R-93/182 or updates thereof shall be presumed to be in compliance with this Section. The following minimum specific elements shall be included in the plan:

a. Responsibility and authority of all organizations and key personnel involved in permitting, designing, constructing, and providing construction quality assurance of the Phosphogypsum Stack System shall be described fully;

b. Minimum qualifications of the construction assurance quality Engineer and supporting personnel shall be in the plan to demonstrate that they possess the training and experience necessary to fulfill their identified responsibilities;

c. Procedures and tests that will be used to monitor the installation of the Liner system components shall be described in detail;

d. The sampling activities, sample size, sample locations, frequency of testing, acceptance and rejection criteria, and plans for implementing corrective measures that may be necessary shall be described; and

e. Reporting requirements for construction quality assurance activities shall be described, including daily summary reports, observation data sheets, problem identification and corrective measures, and final documentation. All such documents shall be included in a final report.

3. A laboratory experienced in the testing of geosynthetics, independent of the Liner manufacturer and installer, shall perform the required testing that must include, at a minimum, conformance testing for all geosynthetics and geocomposites, and testing of seam shear and peel strength for Geomembranes.

4. The Engineer in charge of construction quality assurance shall provide a signed, sealed final report and record drawings stating that the Liner system has been installed in substantial conformance with the plans and specifications for the Liner system and identifying any significant deviations.

(g) Soil Liner construction quality assurance. In addition to the requirements of (f) above, the following requirements apply to construction of the soil component of Liner systems.

All required testing and analysis shall be performed in accordance with generally accepted engineering procedures, such as those promulgated by the ASTM. Parenthetic references to ASTM methods are intended as guidance only.

1. A construction quality assurance/quality control plan shall be prepared for each soil Liner project to outline project specifications and construction requirements. The plan shall specify performance criteria for the soil Liner, and provide quality control testing procedures and minimum sampling frequencies. In addition, the plan shall define the responsibilities of the parties that will be involved in soil Liner construction, and shall present minimum qualifications of each party to fulfill their identified responsibilities.

2. Field and laboratory testing during Liner construction shall be conducted by a qualified soil testing laboratory representing the owner/operator. A qualified field technician representing the owner/operator shall provide full time, on-site inspection during Liner construction. The field technician shall work under the supervision of an Engineer with experience in soil Liner construction.

3. Prior to soil Liner installation, an appropriate borrow source shall be located. Suitability of the Liner construction materials from that source shall be determined in accordance with the following:

(a) If demonstrated field experience is available from at least three (3) prior successful projects of five (5) or more acres each to document that a given borrow source can meet the requirements of the project specifications, then extensive laboratory testing of the borrow source will not be required. However, the source of material shall be geologically similar to and the methods of excavating and stockpiling the material shall be consistent with those used on the prior projects. Furthermore, a minimum of three representative samples from the appropriate thickness of the in-situ stratum or from stockpiles of the borrow material proposed for Liner construction shall be submitted to an independent soil testing laboratory to document through index testing that the proposed material is consistent with the material used on prior successful projects. At a minimum, index testing shall consist of percent fines, Atterberg limits and moisture content determinations.

(b) If demonstrated field experience as defined above is not available or cannot be documented, then the following requirements shall be met:

1. A field exploration and laboratory testing program shall be conducted by an independent soil testing laboratory to document the horizontal and vertical extent and the homogeneity of the soil strata proposed for use as Liner material. A sufficient number of index tests from each potential borrow stratum shall be performed to quantify the variability of the borrow materials and to document that the proposed borrow material complies with specifications. At a minimum, the index tests shall consist of percent fines, Atterberg limits and moisture content determinations.

2. Sufficient laboratory hydraulic conductivity tests shall be conducted on samples representative of the range invariability of the proposed borrow source

(ASTM D-5084). For each such sample, test specimens shall be prepared and tested to cover the range of molding conditions (moisture content and dry density) required by project specifications. The hydraulic conductivity tests shall be conducted in triaxial type permeameters. The test specimens shall be consolidated under an isotropic consolidation stress no greater than ten (10) pounds per square inch and permeated with water under an adequate backpressure to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured (ASTM D-5084).

The borrow source will only be considered suitable if the hydraulic conductivity of the material, as documented on laboratory test specimens, can be shown to meet the requirements of the project specifications at the ninety-eight percent (98%) confidence level.

3. Prior to full-scale Liner installation, a field test section or test strip shall be constructed at the site above a prepared sub-base. The test strip shall be considered acceptable if the measured hydraulic conductivities of undisturbed samples from the test strip meet the requirements of the project specifications at the ninety-eight percent (98%) confidence level. If the test section fails to achieve the desired results, additional test sections shall be constructed in accordance with the following requirements:

a. The test section shall be of sufficient size such that full-scale Liner installation procedures can be duplicated within the test section;

b. The test section shall be constructed using the same equipment for spreading, kneading and compaction and the same construction procedures (*e.g.*, number of passes, moisture addition and homogenization, if needed) that are anticipated for use during full-scale Liner installation;

4. At a minimum, the Liner test section shall be subject to the following field and laboratory testing requirements:

a. A minimum of five (5) random samples of the Liner construction material delivered to the site during test section installation shall be tested for moisture content (ASTM D-2216), percent fines (ASTM D-1140) and Atterberg limits (ASTM D-4318);

b. At least five (5) field density and moisture determinations shall be performed on each lift of the compacted Liner test section;

c. Upon completion of the test section lift, the thickness of the lift shall be measured at a minimum of five (5) random locations to check for thickness adequacy; and

d. A minimum of five (5) Shelby tube or drive cylinder (ASTM D-2937) samples shall be obtained from each lift of the test section for laboratory

hydraulic conductivity testing. Laboratory hydraulic conductivity testing shall be conducted in triaxial type permeameters (ASTM D-5084). The test specimens shall be consolidated under an isotropic consolidation stress no greater than ten (10) pounds per square inch and permeated with water under an adequate backpressure to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity calculated for each recorded low increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured (ASTM D-5084). Alternatively, a sealed double-ring infiltration field test (ASTM D3385) may be used as an alternative to taking drive or Shelby tube samples.

5. Full scale Liner installation may begin only after completion of a successful Liner test section. During Liner construction, documentation of quality control testing shall be maintained and made available to the FDEP and/or EPA upon request, to document that the installed Liner conforms to approved project specifications. The testing frequencies for quality control testing are specified below; however, during construction of the first five acres of the Liner, these frequencies shall be doubled. Samples shall be obtained from random locations selected by an Engineer. If there are indications of a change in material properties, product quality or construction procedures during Liner construction, additional tests shall be performed to determine compliance.

6. Field testing during Liner installation. The following field tests shall be performed:

a. Prior to the laying of the Liner materials, the Liner sub-base shall be compacted to the specified density. Density tests shall be conducted at a minimum rate of two tests per acre;

b. A minimum of two (2) moisture content and field density determinations shall be conducted per acre per lift of the compacted Liner. The degree of compaction shall be checked using the one-point field Proctor test or other appropriate test procedures; and

c. A minimum of four (4) thickness measurements shall be conducted per acre per lift of the compacted Liner.

7. Laboratory testing during Liner installation. The following laboratory tests shall be performed:

a. Percent fines (ASTM D-1140) of the Liner construction material shall be determined at a minimum frequency of two (2) tests per ace per lift of installed Liner;

b. Atterberg Limits determinations shall be performed on one sample per acre per lift of installed Liner; and

c. Hydraulic conductivity testing of Shelby tube or drive cylinder (ASTM D-2937) samples of the compacted Liner shall be performed at a minimum frequency of

one test per acre per lift. Laboratory hydraulic conductivity tests shall be conducted in triaxial type permeameters (ASTM D-5084). The test specimens shall be consolidated under an isotropic consolidation stress no greater than ten (10) pounds per square inch and permeated with water under an adequate backpressure to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured.

8. If the test data from a Liner section does not meet the requirements of the project specifications, additional random samples may be tested from that Liner section. If such additional testing demonstrates that the thickness and hydraulic conductivity meet the requirements of the project specifications at the ninety-five percent (95%) confidence level, that Liner section will be considered acceptable. If not, that Liner section shall be reworked or reconstructed so that it does meet these requirements.

(h) Leachate control system standards.

1. A perimeter underdrain system designed to stabilize the side slopes of the Phosphogypsum Stack shall be installed above the Geomembrane Liner.

2. Perimeter drainage conveyances used in the Leachate control system shall either consist of covered or uncovered ditches that are lined continuously with the Phosphogypsum Stack Liner, or of chemically compatible Leachate collection pipes. Covered ditches shall have maintenance manholes installed at appropriate intervals. Piped systems shall have manholes or appropriate cleanout structures at appropriate intervals unless the Engineer of record certifies and identifies areas where manholes or cleanout structures in piped systems are not feasible.

3. All Toe Drain or Leachate collection systems must be constructed within the lined system.

(i) Liquid containment and conveyance systems.

1. Composite Liners shall be used on all liquid containments and conveyances associated with the Transport of Phosphogypsum, cooling water, and return of Process Wastewater. Exceptions are pumped flow systems contained in pipes or alternative systems that provide an equivalent degree of protection.

2. Pump and piping systems associated with the Transport of Phosphogypsum or Process Wastewater and that cross Surface Waters of the State must be double contained with chemically compatible materials in a manner that assures that all materials under pumped flow are contained within a lined system in the event of a leak or piping system failure.

VII. Requirements for Actively Operated Phosphogypsum Stack Systems

(1) All Active Phosphogypsum Stack compartments, including any noted areas containing critical conditions, as defined below in (4), until corrected, shall be inspected daily. Inactive Phosphogypsum Stack compartments, Phosphogypsum Stack slopes, collection ditches, and Drain outlets shall be inspected at least weekly. Flow from Drain outlets shall be checked quarterly. The total areal coverage of water on the Phosphogypsum Stack shall be estimated each month and the total water inventory on top of the Phosphogypsum Stack shall be estimated annually. The required inspections and estimates shall be carried out by a Qualified Company Employee or contractor employed or retained by the owner/operator of the Phosphogypsum Stack. The results of the required inspections and estimates shall be recorded in a Log that shall be maintained by the owner/operator of the Phosphogypsum Stack.

(2) Where a leak detection system exists, the amount of liquid removed from any such system must be recorded weekly.

(3) Each Phosphogypsum Stack shall be inspected within one year of the date of the Effective Date of the Consent Decree and annually thereafter by a Third-Party Engineer with experience in the field of construction and operation of Phosphogypsum Stacks at the same time that the annual inspection of the associated Perimeter Dike occurs. This annual inspection shall be recorded in a report and shall include an updated aerial photograph and state the area of the top of the Phosphogypsum Stack and the current height and elevation of the Phosphogypsum Stack. The annual inspection report shall include recommendations and corrective measures taken. If corrective measures are not completed by the time of annual submittal, then follow up inspections shall be conducted by the Third-Party Engineer on a quarterly basis with quarterly project reports submitted until completion of all corrective measures. One copy of the annual inspection report shall be submitted to the FDEP and EPA.

(4) Any of the following items shall be considered as indicating a critical condition that requires immediate investigation and may require emergency maintenance action:[3]

(a) Concentrated seepage (*e.g.*, springs or boils) on the face of a Phosphogypsum Stack slope, at the Toe of the slope, or beyond the Toe of a slope with active signs of Piping at the point of seepage (*e.g*., a gypsum or soil cone or delta at the point of seepage).

(b) Evidence of slope instability including sloughing, bulging or heaving of the face of the Phosphogypsum Stack or the Toe of the slope.

(c) Lateral movement or subsidence of the slope or crest of the Phosphogypsum Stack.

(d) Formation of new non-shrinkage cracks or enlargement of wide cracks in the surface of the slope or crest of the Phosphogypsum Stack.

(e) Observed or suspected damage to the Liner system.

(f) Drains discharging turbid water.

3 These requirements also are listed in Attachment E (Critical Conditions and Temporary Measures).

(g) Concentrated seepage (*i.e.*, springs or boils) in the vicinity of a decant pipe.

(5) In addition to the indicators set forth in (4) above, the following items shall be considered as indicating potential trouble areas that must be documented and closely checked on subsequent inspections and repaired as necessary:

(a) Concentrated seepage (*e.g.*, springs or boils) on the face of a Phosphogypsum Stack or at the Toe of slope without active signs of Piping at the point of seepage.

(b) Previously observed localized sloughing at the Toe of slope of the Phosphogypsum Stack.

(c) Previously observed cracks in the surface of the slope or crest of the Phosphogypsum Stack.

(d) Nonflowing drains.

(6) Phosphogypsum Stack System Operation Plans. The following items shall be included in the Operation Plan for each Phosphogypsum Stack System and shall be approved by an Engineer experienced in the construction and operation of Phosphogypsum Stacks:

(a) The method used to raise and operate the Phosphogypsum Stack.

(b) A description of the source and consistency of gypsum used in constructing the Gypsum Dikes and the method used for shaping and/or mechanically working the gypsum.

(c) The overall average exterior slope for raising the Phosphogypsum Stack and the maximum design height of the Phosphogypsum Stack.

(d) The procedures used to assure that pipes used to Transport Phosphogypsum to the Phosphogypsum Stack Systems and to return Process Wastewater to the phosphate fertilizer production facilities are operated and maintained in a safe manner.

(e) The procedures used to decant Process Wastewater from the top of the Phosphogypsum Stack.

(f) The location of pumps, spillways, and staff gauges.

(g) Provisions that address emergency measures to be taken in the event of mechanical failure of a pump or in the event of a power failure for any portion of a Phosphogypsum Stack System that relies on pumps or power to operate monitoring equipment or to transfer Process Wastewater and/or rainfall-runoff from low areas to the main cooling pond. Such emergency provisions may include:

i. Back-up power (*e.g.*, on-site power; diesel generator, etc.) and/or back-up pump

that would be activated in the event of electrical or mechanical failure; or

ii. Sufficient surge storage capacity or emergency surge capacity within the conveyance system to contain the Process Wastewater stream(s), if applicable, as well as runoff from a storm event generating a 100-year rainfall in 24 hours; or

iii. Increased inspection frequencies or continuous monitoring (*e.g.,* remote video camera or automatic water level control device tied to a warning system) to provide early warning of an imminent spill prior to its occurrence; and an emergency action plan that would be undertaken to prevent or contain an accidental spill.

(h) Within six (6) months of the Effective Date of the Consent Decree, a site-specific water management plan shall be prepared and updated in accordance with permitting requirements to reflect changes in Process Watershed area, storm surge, projected water balances and use of any Emergency Diversion Impoundment (s) (EDI) (Section IV, Attachment E: Critical Conditions and Temporary Measures, of this Appendix). The owner/operator shall address in the plan the possibility and/or feasibility that one or more component areas of the Phosphogypsum Stack System may be closed or otherwise removed from the Phosphogypsum Stack System to reduce the watershed and projected Process Wastewater inventory based on all relevant factors, including the five-year water balance analysis as set forth in (7) below, whether the removal of any component areas can be done without compromising plant operations, or operability or integrity of the Phosphogypsum Stack System, the effect of any potential removal areas on the operability of the Phosphogypsum Stack System prior to permanent closure, and any legal or regulatory requirements. The updated plan shall be consistent with water quality based effluent limits applicable to the Facility. This plan shall specify at a minimum, a set of specific actions, including minimum Process Wastewater consumption and transfer rates, that are put into motion when the storage volume, surge capacity, or operating water level(s) of the Cooling/Surge Pond system are determined to be inadequate to contain the rainfall from a storm event generating a 100-year rainfall in twenty-four (24) hours, or where such actions are determined to be necessary based on water balance model results for the rainfall scenarios described in subsection (7) below, and evaluate whether any additional closure is appropriate. The site specific-water management plan and annual updates thereof shall be submitted to the FDEP and/or EPA.

(i) The adequacy of the Facility's site-specific water management and action plans and emergency measures shall be based on a five-year water balance analysis as set forth in (7) below.

(7) The water balance analysis shall use the first day of the month that succeeds the month of the year with the highest long-term average precipitation total as the beginning date for the analysis, unless the EPA or FDEP approve the use of an alternate date where a larger volume of precipitation or water accumulation (such as snowmelt) is expected. The analysis shall identify the rates of all water inputs and outputs, any manufacturing production changes, and changes in Process Watershed area considered in the analysis. A Third-Party Engineer shall verify the accuracy of the analysis. A summary of the analysis and the water balance analysis results shall be included in the annual updated site-specific water management plan required in (6) above.

(a) The water balance calculations shall be performed for five (5) distinct extreme rainfall scenarios applied for the subsequent five (5)-year period using monthly, or more frequent, input rainfall quantities which shall include:

1. Rainfall corresponding to the highest monthly 100-year Rainfall Event occurring during the annual 100-year Rainfall Event, as defined in Attachment F: Definitions for Purpose of this Consent Decree, of this Appendix; and

2. Annual rainfall events shall be determined based on a long-term rainfall record from a National Oceanic & Atmospheric Administration or equivalent weather station in the vicinity of the Facility. The five-year rainfall total shall be based on a cumulative five-year rainfall event which has a probability of exceedance of five percent (5%), which shall be considered an equivalent probability as the 100-year Rainfall Event (*i.e.*, a probability of not being exceeded = 99%) for not being exceeded during a five (5)-year period (i.e., $[1 - 0.99^5] = 5\%$).

(i) Example of the input annual rainfall quantities for each of the five 5-year extreme rainfall scenarios[4]:

	Rainfall, inches					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Scenario 1	100-year annual rainfall quantity incorporating the highest monthly 100-year Rainfall Event (Y1)	An annual rainfall event which together the preceding or following annual rainfall event, contributes to a 2-year total which has a 5% probability of exceedance (Y2)	An annual rainfall event which together the preceding or following annual rainfall events, contributes to a 3-year total which has a 5% probability of exceedance (Y3)	An annual rainfall event which together the preceding or following annual rainfall events, contributes to a 4-year total which has a 5% probability of exceedance (Y4)	An annual rainfall event contributing to a 5-year total which has a 5% probability of exceedance (Y5)	5-year cumulative rainfall total determined in accordance with (7)(a)2. of this Section (∑)
Scenario 2	(Y3)	(Y1)	(Y2)	(Y5)	(Y4)	(∑)
Scenario 3	(Y5)	(Y4)	(Y1)	(Y3)	(Y2)	(∑)
Scenario 4	(Y2)	(Y3)	(Y4)	(Y1)	(Y5)	(∑)
Scenario 5	(Y4)	(Y5)	(Y3)	(Y2)	(Y1)	(∑)

3. The annual rainfall quantities exceeding or less than the long-term average annual rainfall shall be distributed at least amongst the various months of the year, other than the month for the highest monthly 100-year Rainfall Event, in proportion to the normal monthly

4 In lieu of the requirements of 7(a)1(i), facilities located in Florida must provide annual updates to their site-specific water management plans that incorporate the five (5)-year extreme rainfall scenarios prescribed by the Florida Administrative Code (F.A.C.) Chapter 62-672.680 and/or any updates thereof.

rainfall amounts determined from the corresponding long-term record.

(b) The water balance analysis for any Phosphogypsum Stack System shall indicate whether the system storage will be less than any of the following water balance targets:

1. At the beginning of the rainy season, the calculated 100-year, 24-hour rainfall event plus one-half the value for the 25-year, 24-hour rainfall event calculated (in inches) for the area where the Facility is located.

2. At the end of the rainy season, the 100-year, 24-hour rainfall event calculated (in inches) for the area where the Facility is located.

3. Water levels that exceed impoundment Maximum Design Levels at any time during a year.

If the water balance for any Phosphogypsum Stack System indicates that system storage is less than the water balance targets, the owner/operator must provide reasonable assurance that additional Process Wastewater consumption or management items, not already included as outputs in the water balance analysis, are readily available and capable of maintaining these water balance targets. Use of available storage within an Auxiliary Holding Pond, up to its Maximum Design Levels, may be used to provide this assurance.

(c) If the water balance indicates that at any time during the five (5)-year modeling period that Process Wastewater levels, in conjunction with additional available Process Wastewater consumption or management items will not meet the water balance targets, the owner/operator must provide additional Process Wastewater consumption or management items, and submit an alternatives plan and implementation schedule for approval by the FDEP and/or EPA for the additional consumption or management measures within ninety (90) days of submittal of the water balance analysis. The plan and schedule shall include, at a minimum, the following elements:

1. A listing and description of the additional Process Wastewater consumption or management items to be evaluated, including the identification of items that can be rapidly implemented to achieve the water balance targets;

2. A listing of interim measures that can be implemented to prevent an unpermitted release of Process Wastewater in the event that actual rainfall events contribute to Process Wastewater levels exceeding Maximum Design Levels; and

3. A proposed schedule for the evaluation, selection, engineering, design, and construction, installation or implementation for the items and interim measures needed to increase water consumption, reduce inventories, or any combination of such actions that will result in achievement of the water balance targets.

VIII. Contingency Plans for Operating Phosphogypsum Stack Systems

(1) Except for Phosphogypsum Stack Systems for which a contingency plan has already been prepared, within six (6) months of the Effective Date of the Consent Decree, the owner/operator of a Phosphogypsum Stack System shall prepare a contingency plan to address unplanned releases of Process Wastewater. All contingency plans shall be updated on an annual basis. The elements of such a plan shall address the applicable elements of the "National Response Team's Integrated Contingency Plan Guidance," 61 Fed. Reg. 28,641 (June 5, 1996), which elements are incorporated herein by reference and shall demonstrate the ability to mobilize equipment and manpower to respond to emergency situations. The contingency plan shall be maintained at the Facility and be available for inspection by the FDEP and/or EPA upon request.

(2) Training. The owner/operator of a Phosphogypsum Stack System shall provide annual training in inspection and operations requirements and contingency plan requirements to appropriate personnel. Newly hired personnel shall receive training prior to engaging in inspection or operations activities. A training plan consistent with the requirements of this document shall be maintained at each Facility and be available for inspection upon request. Records demonstrating that appropriate personnel have received the necessary training shall be maintained by the Facility owner/operator for a period of three (3) years.

ATTACHMENT D: CLOSURE OF PHOSPHOGYPSUM STACKS/ STACK SYSTEMS

I. Phosphogypsum Stack/Stack Systems Closure

Applicability: The requirements of this Attachment apply, except as specified below, to Active and Inactive Phosphogypsum Stacks and components of the Phosphogypsum Stack System, and to new or expanded components (e.g. Lateral Expansions) of Phosphogypsum Stack Systems when constructed. The requirements of this Attachment will not apply to: (a) a Phosphogypsum Stack System or component thereof that has already undergone permanent closure, (b) a Phosphogypsum Stack System or component thereof that began undergoing permanent closure prior to January 30, 2007, or (c) a Phosphogypsum Stack System or component thereof if an application for Permanent Phosphogypsum Stack System Closure in a manner that satisfies the requirements of this Attachment has been submitted to the FDEP and/or EPA as of the Date of the EPA Notice of Violation. If only a portion of a Phosphogypsum Stack (e.g., lower side slopes) has undergone permanent closure or is undergoing permanent closure pursuant to I(a), (b), or (c) above, only that permanently closed portion of the Phosphogypsum Stack is released from the requirements of this Section

II. General Requirements for Initial Phosphogypsum Stack System Closure Plan

Applicability. The following requirements apply to a Phosphogypsum Stack System (or a component thereof).

(1) Initial Phosphogypsum Stack System Closure Plan. The Initial Phosphogypsum Stack System Closure Plan shall be developed no later than one year after the Effective Date of the Consent Decree unless otherwise specified by the Consent Decree. The Initial Phosphogypsum Stack System Closure Plan shall be submitted by the owner/operator of the operating Phosphogypsum Stack System for approval to the FDEP or EPA. The following requirements must be incorporated into the Initial Phosphogypsum Stack System Closure Plan:

(a) A description of the physical configuration of the Phosphogypsum Stack System for that period of time for which the closure cost is calculated by the owner/operator in accordance with Paragraph 4(b) Appendix 2 (Financial Assurance), of this Consent Decree.

(b) A site-specific water management plan describing the procedures to be employed during closure of the Phosphogypsum Stack System to manage the anticipated volume of Process Wastewater and Leachate. The Initial Phosphogypsum Stack System Closure Plan shall address the anticipated ponded water inventory at the beginning of the closure period, anticipated closure sequence, water balance during the closure period, Phosphogypsum Stack drainage during the closure period and long term care period, adequacy of available surge storage capacity through the closure period , treatment or consumption rate (including neutralization, if applicable), and disposition of ponded Process Wastewater and Leachate, both during Phosphogypsum Stack System closing activities and long-term care activities. An independent third- party with water treatment expertise must be used to evaluate the water and its neutralization or consumption requirements for the duration of Phosphogypsum Stack System

closure;

(c) An estimate of all costs associated with Phosphogypsum Stack System closure, including the costs of closing the Phosphogypsum Stack System (e.g. construction costs, operation/maintenance costs), long-term care activities, and implementation of the site-specific water management plan; and

(d) A description of all construction work necessary to properly undertake Phosphogypsum Stack System closure.

III. Permanent Closure Requirements for Phosphogypsum Stacks/ Stack Systems

(1) At least ninety (90) days before the Permanent Deactivation of a Phosphogypsum Stack System or within thirty (30) days following a decision to permanently cease operations, whichever is later, the owner/operator shall notify FDEP or EPA and implement the ISSMP. Within two-hundred and seventy-five (275) days of implementing the ISSMP, the owner/operator shall submit for approval a closure application including a Permanent Phosphogypsum Stack System Closure Plan, as described below, to the FDEP or EPA. The Permanent Phosphogypsum Stack System Closure Plan shall include the requirements of (2) through (10) of this Section, or shall contain an explanation of why the requirement is not applicable. Valid information on record in an existing permit or approved Groundwater monitoring plan may be used to satisfy the applicable requirements of this Attachment.

(2) General information report. This report must be submitted for approval to the FDEP or EPA and shall contain:

(a) Identification of the Phosphogypsum Stack System;

(b) Name, address and phone number of primary contact persons;

(c) Identification of persons or consultants preparing this report;

(d) Present property owner and Phosphogypsum Stack System operator;

(e) Location by township, range and section, and latitude and longitude of the Phosphogypsum Stack System;

(f) Total acreage of the Phosphogypsum Stack System;

(g) Map of the property as set forth in Appendix 3 (Site Maps); and

(h) History of the Phosphogypsum Stack System, including construction dates and a general description of operations.

(3) Area information report. This report details the area in which the Phosphogypsum Stack System is located. The report must use verifiable information. The term “area” means that area

that may affect or be affected by the Phosphogypsum Stack System, and at a minimum includes the land within a one-mile radius of the Phosphogypsum Stack System. The report shall be supplemented by maps and cross-section drawings. The following topics shall be addressed in the report:

(a) Topography;

(b) Hydrology, including Surface Water drainage patterns and hydrologic features such as Surface Waters, springs, drainage divides and Wetlands;

(c) Geology, including the nature and distribution of lithology, unconsolidated deposits, major confining units and sinkholes;

(d) Hydrogeology, including depth to Groundwater table, Groundwater flow directions, recharge and discharge areas used by public and private wells within one mile of the Phosphogypsum Stack System;

(e) Ground and Surface Water quality;

(f) Land use information. The report shall include a discussion and maps indicating:

1. Identification of adjacent landowners;

2. Zoning;

3. Present land uses; and

4. Roads, highways, right-of-ways, or other easements.

(4) Groundwater monitoring plan and site specific information. The Groundwater monitoring plan and most recent quarterly report submitted in accordance with Attachment B: Groundwater and Zone of Discharge Requirements, Section C: Zone of Discharge Monitoring Requirements, of this Appendix, and approved by the FDEP or EPA.

(5) Assessment report on the effectiveness of existing Phosphogypsum Stack System design and operation. Based on the area information report and the Groundwater monitoring plan, a written assessment shall be prepared that discusses the effects of the Phosphogypsum Stack System on adjacent Groundwater and Surface Waters, and the Phosphogypsum Stack System area. Specific concerns to be addressed are:

(a) Effectiveness and results of the Groundwater monitoring plan; and

(b) Effects of Surface Water runoff, drainage patterns, and existing storm water controls.

(6) Performance standards. This component of the Permanent Phosphogypsum Stack System Closure Plan shall be developed to address the following performance standards.

(a) Stack System Closure shall be designed to protect human health and the environment by:

1. Controlling, minimizing or eliminating the post closure escape of Phosphogypsum, Process Wastewater, Leachate, and contaminated runoff to ground and Surface Waters;

2. Minimizing Leachate generation;

3. Detecting, collecting, and removing Leachate and Process Wastewater efficiently from the Phosphogypsum Stack System and promoting drainage of Process Wastewater and Leachate from the Phosphogypsum Stack;

4. Being compatible with any required Groundwater or Surface Water Corrective Action Work plan;

5. Minimizing the need for further maintenance.

(b) Closure plans for Phosphogypsum Stacks shall include a Final Cover system designed to protect human health and the environment by:

1. Promoting drainage off the Phosphogypsum Stack;

2. Minimizing ponding;

3. Minimizing erosion;

4. Minimizing infiltration into the Phosphogypsum Stack;

5. Functioning with little or no maintenance.

(c) Closure of ponds and drainage conveyances storing Process Wastewater and Leachate shall be designed to protect human health and the environment by:

1. Treating or removing from the ponds and drainage conveyances all Process Wastewater and Leachate as soon as practical, either through return of the Process Wastewater and Leachate to the manufacturing process, transfer of Process Wastewater and Leachate to another pond permitted in accordance with this Attachment, in-situ treatment, or by treatment and subsequent discharge of the Process Wastewater and Leachate under an appropriate discharge permit;

2. Placing any sludges removed from a pond, settling basin, or drainage conveyance into an Active Phosphogypsum Stack permitted in accordance with this Attachment, or an Inactive Phosphogypsum Stack undergoing Stack System Closure in accordance with this Attachment. The closure plan shall contain a detailed description of procedures for removing or

treating the sludges, methods for sampling and testing surrounding soils, and criteria for determining the extent of removal required to satisfy the closure performance standards

(7) Closure design plan. A closure design plan shall be prepared to meet the performance standards specified in Section III.(6), above, and shall be based on the area information report, Groundwater monitoring plan, and assessment of the effectiveness of the existing Phosphogypsum Stack System design and operation. The closure design plan shall consist of engineering plans and a report on closing procedures that shall apply to the closing of the Phosphogypsum Stack System and the monitoring and maintenance during the long-term care period. The closure design plan shall include the following information:

(a) A plan sheet showing phases of site closing.

(b) Drawings showing existing topography and proposed final elevations and grades.

(c) For Phosphogypsum Stack Systems, Final Cover installation plans showing the sequence of applying Final Cover, including thickness and type of material that will be used. All Phosphogypsum Stack Systems shall have a Final Cover designed to meet the performance standards. Final Cover shall be placed over the entire surface of the Phosphogypsum Stack. The Final Cover shall be vegetated with drought-resistant species to control erosion, whose root systems will not penetrate any required low-permeability barrier layer on the top gradient (or alternative approved in accordance with the Consent Decree or Section III: Permanent Closure Requirements for Phosphogypsum Stacks/ Stack Systems (7)(c)1.c of this Attachment). Water balance calculations, based on available climatic data, shall be prepared that estimate the rates and volumes of water infiltrating the cover systems, collected by any Leachate control system, and migrating out of the bottom of the Phosphogypsum Stack or Liner system. Final Cover may consist of synthetic membranes, soils, or chemically or physically amended soils or Phosphogypsum.

1. Top gradients of Final Cover on Phosphogypsum Stacks shall be designed to prevent or minimize ponding or low spots and minimize erosion.

a. The Final Cover on the top gradient shall consist of a barrier soil layer at least 18 inches thick, emplaced in six (6)-inch thick lifts. A final, eighteen (18)-inch thick layer of soil or amended Phosphogypsum that will sustain vegetation to control erosion shall be placed on top of the barrier layer. For unlined Phosphogypsum Stacks, the barrier layer shall have a maximum permeability of 1×10^{-7} cm/sec; for lined Phosphogypsum Stacks, the barrier layer shall have a maximum permeability of 1×10^{-5} cm/sec. If less permeable soils are used, the thickness of the barrier layer may be decreased to twelve (12) inches provided that infiltration is minimized to an equivalent degree.

b. A Geomembrane may be used as an alternative to the low-permeability soil barrier for a Final Cover, constructed to preclude rainfall infiltration into the Phosphogypsum Stack. A Geomembrane used in Final Cover shall be a semi-crystalline thermoplastic at least forty (40) mils thick, or a non-crystalline thermoplastic at least thirty (30) mils thick, with a maximum water vapor transmission rate of 2.4 grams per square meter per day,

have chemical and physical resistance to materials it may come in contact with, and withstand exposure to the natural environmental stresses and forces throughout the installation, seaming process, and settlement of the Phosphogypsum during the closure and long-term care period. A protective soil or amended Phosphogypsum layer at least twenty-four (24) inches thick shall be put on top of the Geomembrane prior to final closure. Material specifications, installation methods, and compaction specifications shall be adequate to protect the barrier layer from root penetration, resist erosion, and remain stable on the final design slopes. This layer shall include soils or amended Phosphogypsum that will sustain vegetative growth.

c. In areas where historically evapotranspiration exceeds precipitation, the Geomembrane option in (7)(c)1.b, above, may be used in conjunction with an alternative top cover design in lieu of the twenty-four (24) inch thick layer of protective soil or amended Phosphogypsum placed above the Geomembrane. The request for an alternate top cover design must be submitted and approved by FDEP and/or EPA.

2. Side slopes and all other grades, except those grades associated with the top gradient and with Cooling/Surge ponds, Auxiliary Holding Ponds (AHP), Regional Holding Ponds (RHP), lime treatment sludge ponds within the definition of the Phosphogypsum Stack System, Process wastewater and Leachate channels (including cooling channels) and ditches, or Toe drainage swales, shall be designed to minimize erosion of the Final Cover material and infiltration. Such designs shall consider the erosion susceptibility of the material proposed for Final Cover relative to historical rainfall patterns for the area, the ability to establish and maintain vegetation and special maintenance procedures proposed to address infiltration and erosion. In addition, for the side slopes of the Phosphogypsum Stack, the following criteria shall be applicable:

a. The side slopes shall be no steeper than two (2)-feet horizontal run to one (1)-foot vertical rise (2H:1V). If the side slopes of any Phosphogypsum Stack are steeper than 2H:1V, the closure design plan shall include a stability analysis demonstrating the long term stability of the area.

b. Cover for the side slope swales, if an aspect of the Phosphogypsum Stack closure design, shall be designed to minimize ponding and low spots, minimize erosion, and infiltration, and at a minimum consist of:

(i) A barrier layer which may be either a Geomembrane Liner or re-compacted soil.

(ii) An adequate protective soil layer over the barrier layer (if a Geomembrane) that can sustain vegetation.

(iii) Unless an alternative cover is approved by the FDEP or EPA, the barrier layer and the protective soil layer for the side slope swales shall conform to the minimum criteria of applicable provisions in Section III(7)(c)1.a&b, above, except that the minimum thickness of the Geomembrane if used in side slope swales shall be 60-mil (e.g. 60-mil HDPE. The alternative cover, if requested, shall be designed to meet the performance standards

for Final Cover and provide, at a minimum, the equivalent degree of protection (e.g., minimize infiltration, erosion, etc.) as would be achieved if the Final Cover conformed to the criteria set forth in Section III(7)(c)1.a&b, above.

3. Final Cover for Cooling/Surge ponds, cooling channels, AHPs, RHPs, lime treatment sludge ponds within the definition of Phosphogypsum Stack System, Toe drainage swales, and Process Wastewater and Leachate channels or ditches, of the Phosphogypsum Stack System, once the Process Wastewater, Leachate and any sludges removed have been addressed pursuant to Section III: Permanent Closure Requirements for Phosphogypsum Stacks/ Stack Systems (6)(c)1-2 of this Attachment, shall be designed to control, minimize or eliminate the post closure escape of Phosphogypsum, Process wastewater, Leachate and contaminated runoff to ground and Surface Waters, and also minimize ponding (except in such circumstances where FDEP approves use of these units for process water storage), minimize infiltration and erosion, and the need for further maintenance. Such a design, depending on the activities under Section III: Permanent Closure Requirements for Phosphogypsum Stacks/ Stack Systems (6)(c)1-2 of this Attachment and the performance standards herein, may require providing a suitable barrier layer (e.g., Geomembrane, re-compacted soil) and an adequate protective soil layer that can sustain vegetation. In addition, the closure design shall at a minimum include material specifications (e.g., soil, fill material), vegetation type, installation methods (e.g., grading, excavation), and compaction specifications adequate to meet the performance standards.

4. The closure design plan shall describe provisions for cover material for long-term care erosion control, filling other depressions, maintaining Berms, and general maintenance of the Phosphogypsum Stack System, and shall specify the anticipated source and amount of material necessary for proper closure of the Phosphogypsum Stack System.

(d) The type of Leachate control system proposed. The Leachate control system shall be designed to prevent Leachate from causing violations of water quality standards beyond the approved zone of discharge for the Phosphogypsum Stack System.

(e) Compliance with Groundwater protection requirements. The closure design plan shall demonstrate how the Phosphogypsum Stack System will meet applicable water quality standards of the State where the Facility is located. The Groundwater monitoring plan and sampling schedule may be adjusted for a Phosphogypsum Stack System where Groundwater contamination is not evident or corrective measures have been taken to correct contamination.

(f) The proposed method of stormwater control. This shall include control of stormwater occurring on the Phosphogypsum Stack System. Stormwater or other Surface Water that mixes with Leachate shall be considered to be Leachate and shall be treated to meet the permit or regulatory requirements of the State where the Facility is located, at the point of discharge. The stormwater control plan shall meet the requirements of the State where the Facility is located; however, nothing herein shall be construed to preclude application of the requirements of the appropriate water management district.

(g) The proposed method of access control. The closure design plan shall describe how access to the closed Phosphogypsum Stack System shall be restricted to prevent any future waste

dumping or use of the Phosphogypsum Stack System by unauthorized persons. Restricted access shall remain in force until the Phosphogypsum Stack System is stabilized and there is no evidence that the property is being used as an unauthorized dump site.

(h) A description of any proposed final use of the Phosphogypsum Stack System.

(8) Closure construction quality assurance plan. A detailed construction quality assurance plan shall be developed for construction activities associated with the closure of the Phosphogypsum Stack System, including each component of the Final Cover system. The plan shall specify quality assurance test procedures and sampling frequencies. Records shall be kept to document construction quality and demonstrate compliance with plans and specifications. Upon completion of closure activities a final construction quality assurance report shall be submitted to the FDEP and/or EPA, prepared by an Engineer. The final report shall include at least the following information:

(a) Listing of personnel involved in closure construction and quality assurance activities;

(b) Scope of work;

(c) Outline of construction activities;

(d) Quality assurance methods and procedures;

(e) Test results (destructive and non-destructive, including laboratory results); and

(f) Record drawings.

(9) Stack System Closure Operation Plan. This component of the Permanent Phosphogypsum Stack System Closure Plan shall:

(a) Describe the actions that will be taken to close the Phosphogypsum Stack System, such as placement of cover, grading, construction of Berms, ditches, roads, retention-detention ponds, installation or closure of wells and boreholes, installation of fencing or seeding of vegetation, protection of on-site utilities and easements;

(b) Provide a time schedule for completion of the closing and long-term care;

(c) Contain appropriate references to the closure design plan, area information report, Groundwater monitoring plan, and other supporting documents;

(d) Provide an Updated Cost Estimate in accordance with Section II Paragraph 4(c)(2) of Appendix 2 (Financial Assurance);

(e) Indicate any additional equipment and personnel needed to complete closure of the Phosphogypsum Stack System; and

(f) Describe any proposed use of the system for water storage or water management.

(10) Certification by an Engineer. Information, plans, and drawings presented in support of a closure plan shall be prepared under the direction of, and certified by, an Engineer. A letter of appointment shall be submitted by the proper company official confirming that the Engineer is authorized to prepare plans and specifications. The Engineer shall be required to make periodic inspections during the closing of the Phosphogypsum Stack System to insure closure is being accomplished according to the Permanent Phosphogypsum Stack System Closure Plan.

(11) Nothing in the Section is intended to preclude the construction of a lined cooling pond or AHP on top of an Inactive Phosphogypsum Stack, as long as the pond is constructed in accordance with the applicable provisions of Attachment C: Phosphogypsum Stack System Construction and Operational Requirements, and as long as the design is included in the closure plan. Within such a cooling pond, the requirements for minimizing ponding and establishing vegetation cover are not applicable.

IV. Temporary Deactivation of Phosphogypsum Stack System(s)

For purposes of this Section, Mosaic shall request a Temporary Deactivation approval when a Phosphogypsum Stack or Phosphogypsum Stack System is Inactive. Mosaic must submit its request for Temporary Deactivation approval within 275 days from when Mosaic ceased depositing Phosphogypsum within the Phosphogypsum Stack for which Mosaic is seeking Temporary Deactivation approval.

(1) The owner/operator of a Phosphogypsum Stack System may request in writing, a determination by the FDEP in consultation with EPA, that the provisions of Section III: Permanent Closure Requirements for Phosphogypsum Stacks/ Stack Systems, of this Attachment need not apply in limited circumstances to a specific Phosphogypsum Stack System, and shall request approval of a Temporary Deactivation of the Phosphogypsum Stack System. This request must be submitted on a yearly basis. The FDEP in consultation with EPA may authorize a Temporary Deactivation approval for each individual Phosphogypsum Stack or Phosphogypsum Stack System in accordance with this subsection or deny the request for such an approval.

(2) Each request for Temporary Deactivation approval shall set forth at least the following information:

(a) The specific Phosphogypsum Stack System or Phosphogypsum Stack for which approval of a Temporary Deactivation is sought;

(b) A demonstration that current economic or other conditions justify a Temporary Deactivation of the Phosphogypsum Stack or Phosphogypsum Stack System;

(c) An estimate of the duration of the Temporary Deactivation of the Phosphogypsum Stack System, and a demonstration that the Stack System is reasonably expected to become Active within this estimated time period; and

(d) The most recent Interim Stack System Management Plan (ISSMP) prepared in accordance with Attachment C: Phosphogypsum Stack System Construction and Operational Requirements, Section I.(6) of this Appendix.

(3) If the FDEP determines that other information is necessary to ascertain if a Temporary Deactivation is warranted, the applicant must submit the additional information upon request. The applicant also shall provide any additional such information requested by EPA.

(4) Upon approval of the Temporary Deactivation by the FDEP, the owner/operator must implement the procedures set forth in the approved ISSMP immediately upon Phosphogypsum Stack System deactivation.

(5) If after review of the information submitted pursuant to (2) and (3) of this Section, the FDEP in consultation with EPA, determines that Temporary Deactivation has not been justified by the owner/operator, the owner/operator may continue to operate the Phosphogypsum Stack or Phosphogypsum Stack System or permanently close the Phosphogypsum Stack or Phosphogypsum Stack System in accordance with the provisions of Section III of this Attachment.

(6) If at any time during the approved Temporary Deactivation period, the FDEP requires information to ascertain if the criteria under (2)(a)-(c) of this Section are being meet, the owner or operator will provide such information within thirty (30) days of the request by the FDEP. The applicant also shall provide any additional such information requested by EPA.

(7) If after review of the information submitted pursuant to (6) of this Section, the FDEP in consultation with EPA, determines that the owner or operator has not demonstrated that it still satisfies the criteria specified in (2)(a)-(c), the FDEP will so notify the owner and/or operator of its determination and the provisions of Section III: Permanent Closure Requirements for Phosphogypsum Stacks/ Stack Systems, of this Attachment will apply.

Nothing in this Section shall limit or affect EPA's assertion of its residual authorities to disapprove of a Temporary Deactivation, notwithstanding approval by FDEP. EPA shall provide notice to Mosaic within 90 days of FDEP approval if EPA does not concur with that decision.

V. Closure Procedures for Phosphogypsum Stacks/ Stack Systems

(1) Closing inspections. The FDEP and/or EPA may specify in the closure permit for the Permanent Phosphogypsum Stack System Closure Plan which particular closing steps or operations must be inspected and approved by the FDEP and/or EPA before proceeding with subsequent closure actions.

(2) Final survey and record drawings. A final survey shall be performed, after permanent closure is complete, by an Engineer or a registered third-party land surveyor to verify that final contours and elevations of the Phosphogypsum Stack System are in accordance with the plan as approved by the FDEP and/or EPA. Aerial mapping techniques that provide equivalent survey accuracy

may be substituted for the survey.

(a) The survey or aerial mapping information shall be included in a report along with information reflecting the record drawings of the Phosphogypsum Stack System. Contours should be shown at no greater than five (5)-foot intervals.

(b) The owner/operator shall submit this report to the FDEP and/or EPA in accordance with the closing schedule.

(3) Certification of closure construction completion. A certification of closure construction completion, signed, dated and sealed by a Third-Party Engineer, shall be provided to the FDEP and/or EPA upon completion of closure.

(4) Official date of closing. Upon receipt of the documents required in (2) and (3) of this Section, the FDEP and/or EPA shall acknowledge by letter to the owner/operator that notice of termination of operations and closing of the Phosphogypsum Stack System has been received. The date of this letter shall be the official date of closing for purposes of determining the beginning of the long-term care period.

(5) Use of closed Phosphogypsum Stack Systems. Closed Phosphogypsum Stack Systems, if disturbed, are a potential hazard to public health, Groundwater and the environment. Consultation with and approval by the FDEP and/or EPA is required before conducting activities that may disturb the closed Phosphogypsum Stack Systems, except for routine maintenance activities.

VI. Long-Term Care for Phosphogypsum Stacks/ Stack Systems

(1) Long-term care period. The owner/operator of any Phosphogypsum Stack System shall be responsible for monitoring and maintenance of the Facility, including the requirements of Section III: Permanent Closure Requirements for Phosphogypsum Stacks/ Stack Systems, (6)(a) of this Attachment, in accordance with an approved Permanent Phosphogypsum Stack System Closure Plan for fifty (50) years from the date of closing unless a reduced long-term care period is approved by the FDEP and/or EPA in accordance with VI(2), below. Before the expiration of the long-term care monitoring and maintenance period the FDEP and/or EPA may extend the time period if it is determined that:

(a) The closure design or closure Operation Plan under the Permanent Phosphogypsum Stack System Closure Plan was ineffective in meeting the standards of this Attachment, or

(b) The extension of the long-term care period is necessary to protect human health and the environment.

(2) Reduced long-term care period. The owner/operator of a Phosphogypsum Stack System may request, in writing, for a reduced long-term care schedule. The FDEP and/or EPA may approve, within its discretion, the request if the information provided by the owner and/or operator

substantiates its claim that the reduced period is sufficient to protect human health and the environment. The request must, at a minimum, demonstrate that the Phosphogypsum Stack System addresses the criteria of (2)(a)-(d), below, and provide any other information relevant to establishing that the reduced period is sufficient to protect human health and the environment:

(a) The Phosphogypsum Stack System has been constructed and operated in accordance with approved standards, and has a Leachate control system and a liner that has controlled, minimized or eliminated releases; and

(b) The Phosphogypsum Stack System has been closed with appropriate Final Cover, that the vegetative cover (or alternative approved in accordance with Section III: Permanent Closure Requirements for Phosphogypsum Stacks/ Stack Systems, (7)(c)1c of this Attachment) has been established, and a monitoring system has been installed and is operating as intended; and

(c) The Phosphogypsum Stack System has a twenty (20)-year history after the date of closure of no unresolved violations of water quality standards or criteria detected in the monitoring system, and no increases over Background water for any monitoring parameters that may be expected to result in violations of water quality standards or criteria; and

(d) The Phosphogypsum Stack System has had no detrimental erosion of the cover system.

(3) Replacement of monitoring devices. If a monitoring well or other device required by the monitoring plan is destroyed or fails to operate for any reason, the Phosphogypsum Stack System owner/operator shall, as soon as possible but no later than seven (7) days after discovery, notify the FDEP and/or EPA in writing. All inoperative monitoring devices shall be replaced with functioning devices within sixty (60) days of the discovery of the malfunctioning unit unless the owner/operator is notified otherwise in writing by the FDEP and/or EPA.

(4) Certification of Long-Term Care Completion. A certification of long-term care completion signed, dated and sealed by a Third-Party Engineer, shall be provided by the owner/operator to the FDEP and EPA upon completion of long-term care.

VII. Closure of Unlined Systems in Phosphogypsum Stacks/ Stack Systems

Other than as allowed in Appendix 7 (Phosphogypsum Stack System Alternative Liner Requirements) and Appendix 6 (RCRA Project Narrative and Compliance Schedule Florida Facilities), no Phosphogypsum or Process Wastewater shall be placed in an unlined Phosphogypsum Stack System after five (5) years of the Effective Date of the Consent Decree; however, such systems may be used for water storage and water management purposes to facilitate closure at the Closing Facilities, as approved by FDEP. Except for such systems which have been approved by FDEP for use for water storage and water management purposes to facilitate closure at the Closing Facilities, the closure or lining of unlined systems shall be completed as expeditiously as practicable, but not to exceed five (5) years of the Effective Date of the Consent Decree. For purposes of this subsection, “unlined” means that the Phosphogypsum Stack System was constructed without an installed Liner meeting those

standards outlined in Attachment C: Phosphogypsum Stack System Construction and Operational Requirements, Section VI, of this Appendix, or as provided pursuant to Appendix 7 (Phosphogypsum Stack System Alternative Liner Requirements) or Appendix 6 (RCRA Project Narrative and Compliance Schedule Florida Facilities).

ATTACHMENT E: CRITICAL CONDITIONS AND TEMPORARY MEASURES

I. Requirements for Perimeter Dikes

(1) If a critical condition is confirmed, the FDEP and EPA shall be notified immediately and the defective area of any Perimeter Dike shall be inspected daily in accordance with Section VII of Attachment C: Phosphogypsum Stack System Construction and Operational Requirements, until corrective maintenance has cured such defect. A written report of the condition and the actions proposed for its correction shall be made to the FDEP and EPA within seven (7) days from the time existence of the critical condition is confirmed.

(2) Any of the following items shall be considered as indicating a critical condition that requires immediate investigation and may require emergency maintenance action:

(a) Concentrated seepage on the downstream slope, at the Toe of slope, or downstream from the Toe of slope (e.g., boils, soil cones, springs or deltas).

(b) Evidence of slope instability including sloughing, bulging or heaving of the downstream slope, or subsidence of any Perimeter Dike slope or crest.

(c) Cracking of surface on crest or either face of the Perimeter Dike slope.

(d) General or concentrated seepage in the vicinity of or around any conduit through the Perimeter Dike.

(e) Observed or suspected damage to the Liner system.

II. Temporary Measures for Use of Design Freeboard to Prevent Release

(1) Temporary use of the Design Freeboard.

(a) Temporary use of the design Freeboard of a Perimeter Dike or a Gypsum Dike is authorized when the water level is at the design Freeboard and when such use is necessary to prevent the release of untreated Process Wastewater. Such use of the Freeboard shall only be allowed when a Third-Party Engineer has approved such use and when documentation demonstrating the continued safety and stability of the Dike is submitted to the FDEP and/or EPA. Such documentation shall include a listing of any operational limitations or constraints recommended by the Third-Party Engineer as set forth in this Section together with confirmation that the owner/operator will comply with such recommendations. The Third-Party Engineer shall base his or her recommendations on:

1. An inspection of the Phosphogypsum Stack System;

2. Dike design and construction information;

3. Results of seepage and stability analyses (including monitoring of seepage pressures within the Dike if such monitoring is deemed necessary); and

4. Wind Surge and Wave Run-up analyses.

(b) The report by the Third-Party Engineer shall specify conditions under which such use may be undertaken so as not to jeopardize the integrity of the Dike, such as:

1. Acceptable wind speeds in forecast;

2. Increased inspection frequencies; and

3. Weekly monitoring of piezometric levels within the mass of the Dike, if and as needed.

(c) The Third-Party Engineer shall reevaluate the Phosphogypsum Stack System each time use of the design Freeboard is proposed by the owner/operator. The FDEP and/or EPA shall be informed of the proposed use and the Engineer's recommendations prior to or within 24 hours of each such occurrence.

(2) If the Perimeter Dike of the Phosphogypsum Stack System is an above-grade Dike, the system may incorporate an emergency spillway to allow for the controlled release of Process Wastewater during emergencies and to avoid overtopping of the Perimeter Dike. The spillway shall be located so as to minimize the environmental impact of any release to the extent practicable. This provision shall not be deemed to authorize a discharge from the spillway and shall not be construed to limit the FDEP and/or EPA's exercise of enforcement discretion in the event that such discharge causes or contributes to a violation of applicable federal and/or state regulations.

III. Requirements for Actively Operated Phosphogypsum Stack Systems

(1) When a critical condition is suspected during any inspection, the inspector shall ensure that a competent technical representative of the Phosphogypsum Stack System owner/operator is made aware of the condition immediately. If the existence of the critical condition is confirmed, the FDEP and/or EPA shall be notified immediately. A written report of the condition and the actions proposed for its correction shall be made to the FDEP and/or EPA within seven (7) days from the time existence of the critical condition is confirmed.

(2) Any of the following items shall be considered as indicating a critical condition that requires immediate investigation and may require emergency maintenance action:

(a) Concentrated seepage (e.g., springs or boils) on the face of a Phosphogypsum Stack slope, at the Toe of the slope, or beyond the Toe of slope with active signs of Piping at the point of seepage (e.g., a gypsum or soil cone or delta at the point of seepage).

(b) Evidence of slope instability including sloughing, bulging or heaving of the face of the Phosphogypsum Stack or the Toe of the slope.

(c) Lateral movement or subsidence of the slope or crest of the Phosphogypsum Stack.

(d) Formation of new non-shrinkage cracks or enlargement of wide cracks in the surface of the slope or crest of the Phosphogypsum Stack.

(e) Observed or suspected damage to the Liner system.

(f) Drains discharging turbid water.

(g) Concentrated seepage (i.e., springs or boils) in the vicinity of a decant pipe.

IV. Emergency Diversion Impoundment

(1) An owner/operator may temporarily use an Emergency Diversion Impoundment (EDI) in accordance with applicable state authorizations to receive and store discharges of water from the Phosphogypsum Stack System to avoid safety-related problems and/or to avoid or reduce the unpermitted discharge of water from the Phosphogypsum Stack System to Surface Waters of the State.

(2) The owner/operator shall provide FDEP a list of previously designated EDIs (as reflected in applicable permits or water management plans) prior to the Effective Date of the Consent Decree. Any additional EDIs that the owner/operator wishes to designate after the Effective Date of the Consent Decree must be authorized by FDEP prior to use.

(3) The owner/operator must transport water to/from the EDI through an emergency spillway or by pumping where necessary.

(4) Following any emergency discharge into an EDI, and within 60 days after such discharge is initiated, the owner/operator shall submit a detailed remedial plan to FDEP and/or EPA. After submission of the plan, the owner/operator will initiate all steps necessary in accordance with the plan to remove the discharge from the EDI and remediate the area if necessary to return that impoundment to its prior use.

ATTACHMENT F: DEFINITIONS FOR PURPOSE OF THE CONSENT DECREE

"25-year Rainfall Event" means a rainfall event which is characterized by a mean return period of twenty-five years, i.e., a rainfall event which has a 96% probability for not being exceeded during any given year.
"100-year Rainfall Event" means a rainfall event which is characterized by a mean return period of one hundred years, i.e., a rainfall event which has a 99% probability for not being exceeded during any given year.
"Active" means a Phosphogypsum Stack/system that currently receives Phosphogypsum and/or Process Wastewater.
"Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of Groundwater to wells, springs or Surface Water.
"Auxiliary Holding Pond (AHP)" means a lined storage pond, designated by the operator and approved by the FDEP and/or EPA, typically used to hold untreated Process Wastewater. AHPs are intended to increase system storage above that otherwise provided by Cooling/Surge Ponds and are typically located within the footprint of a Phosphogypsum Stack System.
"Background" means the condition of Waters in the absence of the activity or discharge under consideration, based on the best scientific information available to the FDEP and/or EPA.
"Berm" means a shelf that breaks the continuity of the slope of an embankment in order to arrest the velocity of storm water flowing down the face and/or to enhance the stability of the embankment.
"Closing Facilities" mean the Green Bay Facility and South Pierce Facility.
"Cooling/Surge Pond" means impounded areas within the Phosphogypsum Stack System, excluding settling compartments atop the Phosphogypsum Stack, that provide cooling capacity, surge capacity, or any combination thereof, for the phosphoric acid Process Wastewater recirculation system including Phosphogypsum Stack transport, runoff, and Leachate water from the Process Watershed.
"Design Freeboard" means the vertical distance from the water surface, when water levels are at the Maximum Design Level, to the lowest elevation of the top of the surrounding Dike.
"Dike" means a barrier to the flow of Phosphogypsum and Process Wastewater which is constructed of naturally occurring soil (Earthen Dike) or of Phosphogypsum (Gypsum Dike) and which is a component of a Phosphogypsum Stack System.
"Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any Solid Waste into or upon any land or water so that such Solid Waste or any constituent thereof may enter other lands or be emitted into the air or discharged into any Waters, including Groundwaters, or otherwise enter the environment.
"Drain" means a material more pervious than the surrounding fill which allows seepage water to drain freely while preventing Piping or internal erosion of the fill material.
"Earthen Dike" means a barrier to the flow of Phosphogypsum and Process Wastewater which is constructed of naturally occurring soil and which is a component of a Phosphogypsum stack system.
"Emergency Diversion Impoundment (EDI)" means an earthen storage area, typically located outside the footprint of a Phosphogypsum Stack System, designated in the Facility's site-specific water management plan to be used on a temporary basis when necessary to avoid an unpermitted Surface Water discharge resulting from Dike overtopping or other imminent and substantial endangerment identified in Attachment E: Critical Conditions and Temporary Measures.

"*Engineer*"" means a person who holds a State-issued license as a Professional Engineer to engage in the practice of engineering.
"Facility" means the definition of "Facility" in the Consent Decree.
"Final Cover" means the materials used to cover the top and sides of a Phosphogypsum Stack upon closure.
"Freeboard" means the height of the lowest point on the dam or Dike crest, excluding the emergency spillway, above the highest adjacent liquid surface within the impoundment Freeboard shall be determined by generally accepted good engineering practices and shall include, at a minimum, evaluation of Wind Surge, Wave Height, and Wave Run-up analyses, erosion protection measures, and protection of Dike integrity and inner rim-ditch geometry.
"Geomembrane" means a low-permeability synthetic membrane used as an integral part of a system designed to limit the movement of liquid or gas in the system.
"Groundwater" means water beneath the surface of the ground within a zone of saturation, whether or not flowing through known and definite channels.
"Groundwater Table" means the upper surface of a zone of saturation, where the body of Groundwater is not confined by an overlying impermeable zone.
"Gypsum Dike" means the outermost Dike constructed within the perimeter formed by a Starter Dike for the purpose of raising a Phosphogypsum Stack and impounding Phosphogypsum and/or Process Wastewater. This term specifically excludes any Dike inboard of a rim ditch, any partitions separating Phosphogypsum Stack compartments, or any temporary windrows placed on the Gypsum Dike. A Dike constructed out of Phosphogypsum that constitutes a Perimeter Dike shall be treated as a Perimeter Dike.
"Inactive" means a Phosphogypsum Stack System (i) for which a Temporary Deactivation has not been requested and approved, (ii) that is no longer receiving Phosphogypsum and/or Process Wastewater, and (iii) in which the owner/operator does not deposit any significant quantity of Phosphogypsum within one calendar year.
"Initial Phosphogypsum Stack System Closure Plan" means the conceptual closure plan that includes some basic design elements needed to estimate closure costs and is consistent with the requirements of Appendix 1 (Operating and Closure Requirements for the Phosphoric Acid Production Industry), Attachment D, Section I.
"Inside (upstream) slope" means the face of the dam or Dike which will be in contact with the impounded liquids.
"Lateral Expansion" means the expansion, horizontally, of Phosphogypsum or Process Wastewater storage capacity beyond the permitted capacity (where applicable) and design dimensions of the Phosphogypsum Stack, or Cooling ponds, surge ponds, and perimeter drainage conveyances at an existing Facility. Any Phosphogypsum Stack, Cooling/Surge Pond, or perimeter drainage conveyance which is constructed within 2000 feet of an existing Phosphogypsum Stack System, measured from the edge of the expansion nearest to the edge of the footprint of the existing Phosphogypsum Stack System, is considered a Lateral Expansion.
"Leachate" means liquid or drainable pore water that has passed through or emerged from Phosphogypsum.
"Liner" means a continuous layer of low permeability natural or synthetic materials which controls the downward and lateral escape of waste constituents or Leachate from a Phosphogypsum Stack System.
"Log" means a written record maintained by the owner/operator of a Dike or a Phosphogypsum Stack System that contains a schedule of inspections of system components, the findings of such

inspections, and any remedial measures taken in response to such findings.
"Maximum Design Level" means the maximum waste water elevation when the water level is at the operating design Freeboard for an impoundment as determined using generally accepted good engineering practices, or the minimum Freeboard allowed, for Perimeter Dikes. Generally accepted good engineering practices for determining the permitted operating design Freeboard includes, at a minimum, evaluation of Wind Surge, Wave Height, and Wave Run-up analyses, erosion protection measures, and protection of Dike integrity and inner rim-ditch geometry.
"Natural Background" means the condition of Waters in the absence of man-induced alterations based on the best scientific information available. The establishment of Natural Background may be based on historical pre-alteration data.
"New Perimeter Dike" means a Perimeter Dike that is completed after the Effective Date of the Consent Decree.
"Operation Plan" means the operation plan required by this Consent Decree.
"Outside (downstream) slope" means the face of the dam or Dike which will not be in contact with the impounded liquids.
"Permanent Deactivation" means the Phosphogypsum Stack System (or component thereof) has ceased receiving and will no longer receive Phosphogypsum and/or Process Wastewater generated from phosphoric acid production operations.
"Perimeter Dike" means the outermost Earthen Dike surrounding a Phosphogypsum Stack System that has not been closed or any other earthen Dike, the failure of which could cause a release of Process Wastewater outside the Phosphogypsum Stack System. In the case of a vertical expansion, the HDPE lined outermost Dike shall also be considered a Perimeter Dike, even if it is a constructed with Phosphogypsum, if its failure could cause a release of Process Wastewater outside the Phosphogypsum Stack System.
"Permanent Phosphogypsum Stack System Closure Plan" means the plan for Stack System Closure submitted at or prior to closure and prepared in accordance with the requirements of Appendix 1 (Operating and Closure Requirements for the Phosphoric Acid Production Industry), Attachment D, Section III.
"Phosphogypsum" means calcium sulfate and byproducts produced by the reaction of sulfuric acid with phosphate rock to produce phosphoric acid. Phosphogypsum is a Solid Waste within the definition of Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).
"Phosphogypsum Stack" means any defined geographic area associated with a phosphoric acid production plant in which Phosphogypsum is disposed of or stored, other than within a fully enclosed building, container or tank.
"Phosphogypsum Stack System" means the defined geographic area associated with the phosphoric acid production plant in which Phosphogypsum and Process Wastewater is disposed of or stored, together with all pumps, piping, ditches, drainage conveyances, water control structures, collection pools, Cooling/Surge ponds (including former Cooling/Surge ponds that have been converted to lime treatment sludge ponds), Auxiliary Holding Ponds, Regional Holding Ponds, and any other collection or conveyance system associated with the Transport of Phosphogypsum from the phosphoric acid plant to the Phosphogypsum Stack, its management at the Phosphogypsum Stack, and the Process Wastewater return to the phosphoric acid production.. This definition specifically includes Toe Drain systems and ditches and other Leachate collection systems, but does not include conveyances within the confines of the phosphoric acid or fertilizer production plant(s) or Emergency Diversion Impoundments used in emergency circumstances caused by rainfall events of high volume or duration for the temporary

storage of Process Wastewater to avoid discharges to Surface Waters of the state.
"Piping" means progressive erosion of soil or solid material within the dam or Dike, starting downstream and working upstream, creating a tunnel into the dam or Dike. Piping occurs when the velocity of the flow of seepage water is sufficient for the water to Transport material from the embankment.
"Pollution" means the presence in the outdoor atmosphere or Waters of the state of any substances, contaminants, noise, or man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of air or water in quantities or levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property, including outdoor recreation.
"Process Wastewater" means *"Process Wastewater from phosphoric acid production."*
"Process Wastewater from Phosphoric Acid Production". The following wastestreams constitute Process Wastewater from phosphorus acid production: water from phosphoric acid production operations through concentration to the First Saleable Product[5]; Process Wastewater generated from Upstream Operations[6] that is used to Transport Phosphogypsum to the Phosphogypsum Stack; Phosphogypsum Stack runoff; Process Wastewater generated from the uranium recovery step of phosphoric acid production; Process Wastewater from non-ammoniated animal feed production (including defluorination, but excluding animal feed production) operations that qualify as mineral processing operations based on the definition of mineral processing that the Agency finalized on September 1, 1989, and Process Wastewater from superphosphate production that involves the direct reaction of phosphate rock with dilute phosphoric acid with a concentration less than Merchant Grade Acid [see 55 Fed. Reg. 2328, January 23, 1990].
"Process Watershed" means the aggregate of all areas that contribute to or generate additional Process Wastewater from direct precipitation, rainfall runoff, or Leachate to a Phosphogypsum Stack, Process Wastewater Cooling/Surge Ponds, or any other storage, collection, or conveyance system associated with the Transport of Phosphogypsum or Process Wastewater for a particular Phosphogypsum Stack System.
"Qualified Company Employee" means an employee trained specifically in the area of their job duties.
"*Regional Holding Pond*" means a lined storage pond approved by the state agency before use that is typically constructed for the purpose of temporarily storing Process Wastewater from more than one Facility.
"Run-Off" means any rainwater, Leachate, or other liquid that drains over land from any part of a Facility.
"Run-On" means any rainwater, Leachate, or other liquid that drains over land onto any part of a Facility.
"Soil Liner" means a Liner constructed from naturally occurring earthen material. This definition expressly excludes any Liner constructed of synthetic material or Phosphogypsum.
"Solid Waste" means any garbage, or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control Facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations.
"Stack System Closing" means the time at which a Phosphogypsum Stack System ceases to

5 First Saleable Product is defined in the Consent Decree, Section III, Paragraph n.
6 Upstream Operations is defined in the Consent Decree, Section III, Paragraph hh.

accept wastes, and includes those actions taken by the owner/operator of the Facility to prepare the system for any necessary monitoring and maintenance after closing.
"Stack System Closure" means the cessation of operation of a Phosphogypsum Stack System and the act of securing such a system, including the installation of a Liner, so that it will pose no significant threat to human health or the environment. This includes Phosphogypsum Stack System Closing, long-term care (e.g., monitoring and maintenance) and water management activities associated with Phosphogypsum Stack System Closing and long-term care activities.
"Starter Dike" means the initial Dike constructed at the base of a Phosphogypsum Stack to begin the process of storing Phosphogypsum.
"Statistically Significant" means that a result is not likely to be due to chance alone. For purposes of this Attachment, a significance level of 0.05 or 0.01 should be used in determining statistical significance.
"Storage" means the containment of wastes, either on a temporary basis or for a period of years, in such a manner as not to constitute Disposal of such wastes.
"Surface Water" means water upon the surface of the earth, whether contained in bounds created naturally or artificially or diffused. Water from natural springs shall be classified as Surface Water when it exits from the spring onto the earth's surface.
"Temporary Deactivation" refers to a Phosphogypsum Stack System that will cease or has ceased to accept deposits of Phosphogypsum and/or Process Wastewater on a temporary basis and is reasonably expected to become Active within an estimated time period.
"Third-Party Engineer" means an Engineer who is not an employee of any entity that owns or operates a phosphate mine or Facility.
"Toe" means the Toe of the dam or Dike is the junction between the face of the dam or Dike and the adjacent terrain.
"*Toe Drain"* is a wedge-shaped Drain supporting the downstream Toe of the dam.
"Transport" means the movement of wastes from the point of generation to any intermediate points, and finally to the point of ultimate Storage or Disposal.
"*Waters"* include, but are not limited to, rivers, lakes, streams, springs, impoundments, and all other Waters or bodies of water, including fresh, brackish, saline, tidal, surface or underground Waters. Waters owned entirely by one person other than the state are included only in regard to possible discharge on other property or water. Underground Waters include, but are not limited to, all underground Waters passing through pores of rock or soils or flowing through in channels, whether manmade or natural.
"Wave Height" means the average height of the waves that may be determined for design purposes as a function of sustained wind speed, effective fetch length, and wind duration. Sustained wind speed shall be determined based on either an estimated 100-year return frequency wind speed adjusted to a sustained wind speed for a 10-minute duration, or a 110 miles per hour (mph) fastest-mile wind speed for locations within 25 miles of the seacoast and a 95 mph fastest-mile wind speed at other inland locations where the fastest-mile wind speeds are adjusted to a sustained wind speed for a 10-minute duration.
"Wave Run-up" means the difference in vertical height between the maximum elevation attained by wave run up or uprush on a slope and the still water elevation at the inboard Toe of the slope.
"Wetlands" means those areas that are defined in 40 CFR 232.2. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas.
"Wind Surge" means the vertical rise in base water-surface elevation, exclusive of the Wave Height, above the still water elevation, caused by wind-induced stresses and mounding of the

water surface in the leeward direction.
*"Zone of Discharg*e" means a volume underlying or surrounding the site and extending to the base of a specifically designated Aquifer or Aquifers, within which an opportunity for the treatment, mixture or dispersion of wastes into receiving Groundwater is afforded.

Attachment G: Phosphogypsum Stack System Permanent Closure Application

PART I – INSTRUCTIONS

Phosphogypsum Stack Systems must be closed pursuant to the Consent Decree entered in the United States of America v. _____(Court Name, Civil Action Number:_____), Appendix 1 (Operating and Closure Requirements for the Phosphoric Acid Production Industry), Attachment D and in accordance with conditions set forth in the Consent Decree. The applicant shall complete and submit this form, certified by the applicant and its Engineer, along with its application for closure of a Phosphogypsum Stack System. This form should be typed or printed. If additional space is needed, separate, properly identified sheets of paper may be attached. All blanks shall be filled or modified N/A (not applicable).

In addition to the information listed on this form, the applicant shall submit all information necessary to evaluate the proposed closure plan to ensure the Phosphogypsum Stack System will pose no significant threat to public health or the environment. A minimum of four copies of this application (preferably in a large binder) shall be submitted to the appropriate FDEP and Regional Office of the U.S. EPA. Please complete applicable sections of the application for the type of Facility involved.

PART II - GENERAL INFORMATION

(1) Application for permanent closure: ☐ Phosphogypsum Stack; ☐ cooling or surge ponds; ☐ other _____

(2) Facility name: _____

(3) Facility RCRA EPA ID No.: _____

(4) Facility location (main entrance):_____

(5) Location coordinates: Latitude_____ º_____'_____ " Longitude_____ º_____'_____"

Section _____Township _____ Range_____ UTMs: Zone _____ _____ km E _____ km N

(6) Applicant Name (Operating Authority): _____

Street Address & P. O. Box:_____

City: _____County:_____ Zip:_____

Contact Person: Name _____Phone:_____

Email: _____

(7) Authorized Agent/Consultant Name:_____

Contact Person Name:_____ Phone:_____

Email:_____

Street Address & P. O. Box:_____

City: _____County:_____ Zip:_____

Land Owner (if different from applicant):_____

Address of Landowner: Street & P. O. Box:_____

City: _____County:_____ Zip:_____

PART III - CLOSURE GENERAL REQUIREMENTS

APPLICATIONS AND SUPPORTING INFORMATION SHALL INCLUDE THE FOLLOWING:

	Completeness Check	Binder Location
(1) Four copies of the completed application form, all supporting data and reports	☐	_____
(2) A letter of transmittal to the FDEP and EPA ☐	_____	
(3) A table of contents listing the main section of the application	☐	_____
(4) The application fee where applicable, in check or money order payable to the FDEP ☐	_____	
(5) Engineer certification	☐	_____
(6) Engineer's letter of appointment if applicable	☐	_____
(7) Closure plan, Consent Decree Appendix 1, Attachment D	☐	_____
(8) Copy of any lease agreement, transfer of property agreement with right of entry for long-term care, or any other agreement between operator and property owner by which the closing and long-term care of the Facility may be affected	☐	_____

PART IV - CLOSURE PLAN REQUIREMENTS

The following information items must be included in the application or an explanation given if they are not applicable. These are general references. Please see Appendix 1 (Operating and Closure Requirements for the Phosphoric Acid Production Industry) for the complete requirements of each section.

	Completeness Check	Binder Location
(1) General Information Report [Consent Decree		
	Completeness Check	Binder Location
Appendix 1, Attachment D, III, (2)]	☐	_____
(a) Identification of the Phosphogypsum Stack System	☐	_____

(b) Name, address, and phone number of primary contact person	☐	_____
(c) Name of person(s) or consultants preparing closure plan	☐	_____
(d) Present property owner(s) and operator	☐	_____
(e) Locations of main entrance or operators office of the Phosphogypsum Stack System by: township, range, section and latitude and longitude	☐	_____
(f) Total acreage of Phosphogypsum Stack System and total acreage of Facility property	☐	_____
(g) Legal description of property on which the Phosphogypsum Stack system is located	☐	_____
(h) History of Phosphogypsum Stack System construction and operations	☐	_____
(2) Area Information Report [Consent Decree Appendix 1, Attachment D, III, (3)]	☐	_____
(a) Topography	☐	_____
(b) Hydrology	☐	_____
(c) Geology	☐	_____
(d) Hydrogeology	☐	_____
(e) Ground and Surface Water quality	☐	_____
(f) Land use information	☐	_____
(3) Ground water monitoring plan containing site specific information [Consent Decree Appendix 1, Attachment D, III, (4)]	☐	_____
(4) Assessment of the effectiveness of existing Phosphogypsum system design and operation [Consent Decree Appendix 1, Attachment D, III, (5)]	☐	_____
(a) Effectiveness and results of ground water investigation	☐	_____
	Completeness Check	Binder Location
(b) Effects of Surface Water runoff, drainage pattern and existing storm water control	☐	_____
(5) Performance Standards [Consent Decree Appendix 1,Attachment D, III, (6)]	☐	_____

(a) Approach used for:

1. Controlling, minimizing or eliminating the post closure escape of

Phosphogypsum, Process Wastewater, Leachate, and contaminated runoff to ground and Surface Waters ☐ _____

2. Minimizing Leachate generation ☐ _____

3. Detecting, collecting, and removing Leachate and Process Wastewater efficiently from the Phosphogypsum Stack System and promoting drainage of Process Wastewater from the Phosphogypsum Stack ☐ _____

4. Minimizing the need for further maintenance ☐ _____

(b) Discussion of approach used to ensure that the Final Cover system is designed to protect human health and the environment:

1. Promoting drainage off the Stack; ☐ _____

2 Minimizing ponding ☐ _____

3. Minimizing erosion ☐ _____

4. Minimizing infiltration into the Phosphogypsum Stack ☐ _____

5. Functioning with little or no maintenance ☐ _____

(c) Closure of ponds and drainage conveyances storing Process Wastewater ☐ _____

(6) Closure design plan [Consent Decree Appendix 1, Attachment D, III, (7)] ☐ _____

(a) Phasing of site closing ☐ _____

(b) Existing topography and proposed final grades ☐ _____

(c) Final Cover installation plans ☐ _____

(d) Type of Leachate control system proposed ☐ _____

	Completeness Check	Binder Location
(e) Compliance with ground water protection requirements of the FDEP	☐	_____
(f) Proposed method of stormwater control	☐	_____
(g) Proposed method of access control	☐	_____
(h) Proposed final use of Phosphogypsum Stack System property	☐	_____
(7) Closure construction quality assurance plan [Consent Decree Appendix 1, Attachment D, III, (8)]	☐	_____

(a) Listing of personnel involved in closure construction and quality

assurance activities ☐ _____

(b) Scope of work ☐ _____

(c) Outline of construction activities ☐ _____

(d) Quality assurance methods and procedures ☐ _____

(e) Test results ☐ _____

(f) Record drawings ☐ _____

(8) Closure Operation Plan [Consent Decree Appendix 1, Attachment D, III, (9)] ☐ _____

(a) Describe actions which will be taken to close the Phosphogypsum Stack System ☐ _____

(b) Time schedule for completion of closure and long term care ☐ _____

(c) Equipment and personnel needs to complete closure ☐ _____

(d) Appropriate references to design closure plan ☐ _____

(e) Proposed use of the system for water storage or water management ☐ _____

(9) Engineer certification [Consent Decree Appendix 1, Attachment D, III, (10)] ☐ _____

PART V - CERTIFICATION BY APPLICANT AND ENGINEER

(1) Applicant

The undersigned applicant or authorized representative* of_____ is aware that statements made in this form and the attached information are an application for closure approval from the FDEP and/or EPA and certifies that the information in this application is true, correct and complete to the best of his knowledge and belief. Furthermore, the undersigned agrees to comply with the requirements of Attachment D of Appendix 1 (Operating and Closure Requirements for the Phosphoric Acid Production Industry) of the Consent Decree (Court Name, Civil Action No:. _____).

*Attach letter of authorization if representative is not the owner or a corporate officer.

_____

Signature of Applicant or Authorized Representative

_____

Name and Title

_____

Date Signed:

(2) Professional Engineer, registered in _____ or Public Officer as required in [State code].

This is to certify that the engineering features of this Facility's Permanent Phosphogypsum Stack System Closure Plan have been designed/examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, this Facility's Permanent Phosphogypsum Stack System Closure Plan, when properly executed, will comply with the requirements of Attachment D of Appendix 1 (Operating and Closure Requirements for the Phosphoric Acid Production Industry) of the Consent Decree (Civil Action No:. _____). It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and closure of the Facility.

Signature	Mailing Address
Name and Title (Please type)	City, State, Zip Code
State Registration Number (Please affix seal)	Telephone Number (including area code)
	Date Signed

APPENDIX 2

APPENDIX 2: FINANCIAL ASSURANCE

This Appendix sets forth the obligations of Defendant to secure and maintain Financial Assurance, as required under Paragraph 25 of the Consent Decree, including schedules and notice requirements. Submittals requiring EPA approval shall be submitted pursuant to Section V (Compliance), Paragraphs 27-31, and Section XV (Notices) of the Consent Decree. "EPA approval" or "determination" as used in this Appendix shall encompass the approval or determination by FDEP and such approval or determination may be transmitted by either EPA or FDEP. An EPA approval or determination shall be subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree, including judicial review, unless this Appendix specifies otherwise. The standard of review regarding any EPA approval or determination under this Appendix (including requirements incorporated by reference) shall be governed by Paragraph 70.a of the Consent Decree. If, in situations where judicial review is not precluded by this Appendix, Mosaic seeks but does not prevail on judicial review of such EPA approval or determination, Mosaic shall pay all costs incurred by the United States and FDEP in connection with such judicial review, including attorneys' fees.

Any modification of a time period specified by this Appendix or its Attachments is a non-material modification for purposes of Section XVIII (Modification) of the Consent Decree and may be modified by written agreement of the Parties.

Under this Appendix, when required to provide an originally signed certification by the Chief Financial Officer ("CFO"), unless otherwise specified, another designated corporate officer may provide the signed certification if authority to sign has been assigned or delegated in accordance with corporate procedures and bylaws ("duly designated corporate officer"). Defendant shall use the form provided in Attachment A ("CFO Certification") of this Appendix for this certification.

I. Definitions

Except as otherwise provided in this Appendix, definitions for the terms presented herein shall be incorporated from 40 C.F.R. § 264.141.[1] Whenever the terms set forth below are used in this Appendix, the definitions set forth below shall apply. However, the Parties are not bound by these definitions in connection with any matter not relating to Financial Assurance under this Consent Decree.

"Affiliate" shall have the same meaning as set forth in the Statement of Financial Accounting Standards No. 57, Appendix B (Glossary) (Financial Accounting Standards Board - Original Pronouncements, as amended): "A party that, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with the enterprise."

[1] Florida has promulgated financial assurance regulations by incorporating by reference 40 C.F.R. Part 264, Subpart H (including all appendices), except as otherwise provided by the Florida Administrative Code ("F.A.C."). *See* F.A.C. R. 62-730(180)1. FDEP has incorporated by reference all federal regulations cited in this Appendix (except for some of the federal regulations specified in the definition of "Environmental Obligations").

"Anniversary Date" shall mean the annual anniversary of the date that Financial Assurance is provided unless otherwise stated in this Appendix. The Anniversary Date for a Self-Assurance Mechanism shall be ninety (90) Days after the end of the Defendant's fiscal year. As specified in Paragraph 29.d, the Anniversary Date for Financial Assurance provided pursuant to Paragraph 10.a.(1)(c) shall be March 31.

"Assets" shall mean all existing and all probable future economic benefits obtained or controlled by a particular entity, as represented on the company's Independently Audited balance sheet.

"Assets located within the United States" shall mean the sum of all Assets located in the United States.

"Certified Public Accountant" or "CPA" shall mean an accountant who has demonstrated the requisite certification requirements of the American Institute of Certified Public Accountants ("AICPA") and met all statutory and licensing requirements of the State in which (s)he works.

"Closing Facilities" shall mean Green Bay and South Pierce, as defined in Paragraph 8(f) of the Consent Decree.

"Closure Plan" shall mean the plan (including, as applicable, the Initial Closure Plan or Permanent Closure Plan) prepared for Phosphogypsum Stack System Closure, Long Term Care, and associated Water Management activities, in accordance with the requirements of Appendix 1, Attachment D or the Florida Phosphogypsum Rules, as applicable under Paragraphs 21-23 of the Consent Decree.

"Control" shall have the same meaning as set forth in the Statement of Financial Accounting Standards No. 57, Appendix B (Glossary) (Financial Accounting Standards Board - Original Pronouncements, as amended): "The possession, direct or indirect, of the power to direct or cause the direction of management and policies of an enterprise through ownership, by contract, or otherwise."

"Corrective Action" shall have the meaning set forth in the Consent Decree.

"Corrective Action Cost Estimate" shall mean the estimate of the costs at a Facility for Plan Work as set forth in Section IV (Corrective Action) of this Appendix.

"Cost Estimate" shall mean the estimate of the costs for Phosphogypsum Stack System Closure and Long Term Care at a Facility as set forth in Section II of this Appendix.

"Current Assets" or "CA" shall mean cash or other assets or resources reasonably expected to be realized within one (1) year during the normal operating cycle of the business, as represented on the company's Independently Audited balance sheet.

"Current Dollars" shall mean U.S. dollars in the year actually received or paid, unadjusted for price changes or inflation.

"Current Liabilities" or "CL" shall mean obligations that are reasonably expected to be repaid within one (1) year using existing resources classified as Current Assets, as represented on the company's Independently Audited balance sheet.

"Current Ratio" shall mean Current Assets divided by Current Liabilities ("CA/CL").

"Debt-to-Equity Ratio" shall mean the total Liabilities divided by Net Worth ("TL/NW").

"Defendant" shall mean Mosaic Fertilizer, LLC.

"Environmental Obligations" shall mean obligations both in programs that EPA directly operates, and in programs where EPA has delegated authority to the State or approved a State's program, that are assured through the use of a financial test and/or guarantee. These obligations include, but are not limited to: liability, closure, post-closure and corrective action cost estimates for hazardous waste treatment, storage, and disposal facilities pursuant to 40 C.F.R. §§ 264.101, 264.142, 264.144, 264.147, 265.142, 265.144 and 265.147; cost estimates for municipal solid waste management facilities pursuant to 40 C.F.R. §§ 258.71, 258.72 and 258.73; cost estimates for industrial or commercial waste facilities; current plugging and abandonment cost estimates for underground injection control facilities pursuant to 40 C.F.R. § 144.62; cost estimates for petroleum underground storage tanks pursuant to 40 C.F.R. § 280.93; cost estimates for PCB facilities pursuant to 40 C.F.R. § 761.65; any financial assurance required under, or as part of an action under, the Comprehensive Environmental Response, Compensation, and Liability Act; and any other environmental obligation assured through a financial test and/or guarantee.

"Exchange" shall mean a place where securities are traded (e.g., New York Stock Exchange).

"Facility" or "Facilities" shall mean Bartow, Green Bay, New Wales, Riverview and South Pierce, as defined in Paragraph 8(p) of the Consent Decree.

"Financial Assurance" shall mean a written demonstration of financial capability or establishment of a Financial Mechanism (i.e., Third-Party Mechanism(s) or Self-Assurance Mechanism(s)), in compliance with the terms of this Appendix, to implement Phosphogypsum Stack System Closure and Long Term Care in an amount at least equal to the initial Cost Estimate or Updated Cost Estimate, and to provide for Third-Party Liability and Corrective Action as required under this Appendix.

"Financial Assurance Delta" shall mean the Total Cost Estimate less the sum of: (1) the most recent value of the Florida Phosphogypsum Trust Fund established in accordance with Appendix 2 of this Consent Decree as represented by the Trustee in its most recent valuation statement to the Grantor, (2) the most recent value of the Louisiana Phosphogypsum Trust Fund established in accordance with Appendix 2 of the Consent Decree, [*insert Consent Decree name and designation*], (the "Louisiana Consent Decree") as represented by the Trustee in its most recent valuation statement to the Grantor, and (3) the aggregate value of any other Third-Party Mechanism secured to establish Financial Assurance in accordance with Appendix 2 of the two Consent Decrees.

"Financial Mechanism" shall mean those mechanisms or instruments specified in this Appendix used to secure funding for an obligation under the Consent Decree.

"Florida Financial Assurance Delta" shall mean the Total Florida Cost Estimate less the sum of: (1) the most recent value of the Florida Phosphogypsum Trust Fund established in accordance with Appendix 2 of this Consent Decree and as represented by the Trustee in its most recent valuation statement to the Grantor and (2) the aggregate value of any other Third-Party Mechanism secured to establish Financial Assurance in accordance with this Appendix.

"GAAP" shall mean U.S. Generally Accepted Accounting Principles.

"Guarantee" or "Corporate Guarantee" shall mean an agreement in which a second entity assumes responsibility for providing the resources to perform (e.g., alternate Financial Assurance) and/or the performance of an obligation if the entity primarily liable fails to perform as set forth in this Appendix 2. The entity providing the Guarantee is the Guarantor.

"Immediate Family" shall have the same meaning as set forth in the Statement of Financial Accounting Standards No. 57, Appendix B (Glossary) (Financial Accounting Standards Board - Original Pronouncements, as amended): "Family members whom a principal owner or a member of management might control or influence or by whom they might be controlled or influenced because of a family relationship."

"Independent Attorney" shall mean an attorney hired by Defendant to provide the opinion required by Paragraph 10.f. of this Appendix. The Independent Attorney must be licensed and in good standing, have expertise in the areas of law for which the opinion is being rendered, free of control by Defendant (or Defendant's Guarantor or Related Party), and able to exercise his or her judgment as to the required opinion. Defendant shall waive any claim of attorney-client privilege or work-product doctrine in connection with the Independent Attorney's provision of the opinion required by Paragraph 10.f., and shall provide EPA with any requested support for the Independent Attorney's opinion.

"Independent Audit" shall mean an independent assessment (audit) of the fairness by which a company's financial statements are presented by its management in conformance with GAAP. The audit must be performed by an independent Certified Public Accountant and conform to U.S. Generally Accepted Auditing Standards ("GAAS"). An Independently Audited financial statement is a financial statement that has been subject to such an Independent Audit.

"Intangible Assets" or "IA" shall mean identifiable non-monetary assets lacking physical substance, as defined under GAAP and as accounted for in the company's Independently Audited financial statements, including but not limited to patents, copyrights, franchises, goodwill, trademarks, and trade names.

"Investment Grade" shall mean a Long-Term Issuer Credit Rating of BBB, or long-term Corporate Family Rating of Baa2, or equivalent, or above assigned by a Nationally Recognized Statistical Rating Organization ("NRSRO").

"Liabilities" shall mean all probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events, as represented on the company's Independently Audited balance sheet.

"Liquidity Buffer" shall mean the sum of the cash balances and unutilized committed lines of credit of Defendant, its parent and affiliates.

"Long Term Care" shall mean those activities required pursuant to Appendix 1, Attachment D, including associated Water Management activities, or the Florida Phosphogypsum Rules, as applicable under Paragraphs 21-23 of the Consent Decree, and shall be substituted for "post-closure" in 40 C.F.R. Part 264, Subpart H.

"Management" shall have the same meaning as set forth in the Statement of Financial Accounting Standards No. 57, Appendix B (Glossary) (Financial Accounting Standards Board - Original Pronouncements, as amended): "Persons who are responsible for achieving the objectives of the enterprise and who have the authority to establish policies and make decisions by whose objectives are to be pursued. Management normally includes members of the board of directors, the chief executive officer, chief operating officer, vice president in charge of the principal business functions (such as sales, administration, or finance), and other persons who perform similar policymaking functions. Persons without formal titles also may be members of management."

"Net Present Value" or "NPV" shall mean the total present value of a time series of cash flows.

"Net Worth" shall mean total Assets minus total Liabilities and is equivalent to shareholder's (or owner's) equity, as represented on the company's Independently Audited balance sheet.

"Non-U.S. Corporation" shall mean a legal entity, chartered by a State or government outside the continental United States, Alaska, Hawaii, or U.S. territories.

"Operating Cash Flow" shall mean the net cash provided by operating activities, as determined on a consolidated basis, as accounted for pursuant to GAAP, and as represented on a company's Independently Audited consolidated statements of cash flows (also referred to as "cash flows provided by operations" or "cash flow from operating activities").

"Operating Facilities" shall mean Bartow, New Wales, and Riverview, as defined in Paragraph 8(hh) of the Consent Decree.

"Plan Work" shall mean the work required to implement any Risk Assessment Plan, Corrective Action Plan, or Interim Measures Plan pursuant to Paragraphs 17 through 19 of Attachment A of Appendix 1 or pursuant to an agreement entered into, or permit or Order issued, by FDEP, or any corrective action assessment for the Zone of Discharge, pursuant to Section D of Attachment B of Appendix 1. Plan Work is part of the Work required under the Consent Decree.

"Principal Owners" shall have the same meaning as set forth in the Statement of Financial Accounting Standards No. 57, Appendix B (Glossary) (Financial Accounting Standards Board - Original Pronouncements, as amended): "Owners of record or known beneficial owners of more than 10 percent of the voting interest of the enterprise."

"Phosphogypsum Stack System Closure" shall mean the closure of the Phosphogypsum Stack System and associated Water Management activities required pursuant to Appendix 1, Attachment D, or the Florida Phosphogypsum Rules, as applicable under Paragraphs 21-23 of the Consent Decree, and shall be substituted for "closure" in 40 C.F.R. Part 264, Subpart H.

"Related Party" or "Related Parties" shall have the same meaning as set forth in the Statement of Financial Accounting Standards No. 57, Appendix B (Glossary) (Financial Accounting Standards Board - Original Pronouncements, as amended) as that standard may hereafter be modified, which standard currently provides: "Affiliates of the enterprise; entities for which investments in their equity securities would, absent the election of the fair value option under FASB Statement No. 159, *The Fair Value Option for Financial Assets for Financial Assets and Financial Liabilities*, be required to be accounted for by the equity method by the enterprise; trusts for the benefit of employees, such as pension and profit-sharing trusts that are managed by or under the trusteeship of management; principal owners of the enterprise; its management; members of the immediate families of principal owners of the enterprise and its management; and other parties with which the enterprise may deal if one party controls or can significantly influence the management or operating policies of the other to an extent that one of the transacting parties might be prevented from fully pursuing its own separate interests. Another party also is a related party if it can significantly influence the management or operating policies of the transacting parties or if it has an ownership interest in one of the transacting parties and can significantly influence the other to an extent that one or more of the transacting parties might be prevented from fully pursuing its own separate interests."

"Representation and Certification" shall mean a document signed by the Guarantor's CFO as required in Section VIII of this Appendix.

"Self-Assurance Mechanism" shall mean a corporate financial test or a corporate guarantee as set forth in this Appendix.

"Substantial Business Relationship" shall mean the extent of a business relationship necessary under applicable State law to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of EPA.

"Tangible Assets" shall mean total Assets minus Intangible Assets.

"Tangible Assets located within the United States" shall mean the sum of all Tangible Assets located in the United States.

"Tangible Net Worth" or "TNW" shall mean total Assets minus Intangible Assets and minus total Liabilities ("(TA-IA)-TL").

"Third Party" shall mean a party that is not a Related Party or a party with a Substantial Business Relationship to the Defendant.

"Third-Party Mechanism" shall mean a trust fund, surety bond, letter of credit, or insurance as set forth in this Appendix.

"Total Cost Estimate" shall mean the sum of the Total Florida Cost Estimate plus the Total Louisiana Cost Estimate, as the latter term is defined in Appendix 2 to the Louisiana Consent Decree.

"Total Florida Cost Estimate" shall mean the sum of the initial Cost Estimates, and thereafter, the sum of the Updated Cost Estimates, for all Phosphogypsum Stack System Closure and Long Term Care activities for all Operating and Closing Facilities, plus five percent (5%) of that cost.

"Trust Agreement" shall mean a signed document that establishes a trust fund. A trust fund is a mechanism in which legal title to property (e.g., cash, investment securities) is transferred from Mosaic Fertilizer, LLC (the "Grantor") to another party (the "Trustee") who will hold and administer the property for the benefit of EPA and FDEP (the "Beneficiaries").

"Updated Cost Estimate" shall mean a Cost Estimate updated pursuant to Paragraph 4 of this Appendix 2.

"Water Management" shall mean the water management and groundwater monitoring activities required by Appendix 1, Attachment D.

II. Cost Estimate

1. Unless Defendant has provided the following submission to EPA prior to the Lodging of the Consent Decree and such submission has already been approved by EPA, within thirty-five (35) Days of the Lodging of this Consent Decree, Defendant shall submit to EPA for approval its initial Cost Estimate. In such case, and if the United States thereafter moves for entry of the Consent Decree, such motion shall be deemed approval of such initial Cost Estimate.

a. The initial Cost Estimate, except as set out below in Paragraph 1.b for Financial Assurance being provided pursuant to Paragraph 10.a(1)(c), shall include a detailed written Cost Estimate for Phosphogypsum Stack System Closure and Long Term Care for each Facility, including but not limited to the cost of cover material, topsoil, seeding, fertilizing, mulching, labor, land surface care, and groundwater monitoring, collection and analysis and any other costs of compliance with Appendix 1, Attachment D. The Cost Estimate shall be calculated based on the point in time when the manner and extent of the operation of the Phosphogypsum Stack System would make the Phosphogypsum Stack System Closure and Long Term Care the most expensive. All Cost Estimates shall be based on what it would cost to hire a Third Party to complete Phosphogypsum Stack System Closure and Long Term Care in that year, except as

provided in Paragraph 1.c., below. Defendant shall include as part of its initial Cost Estimate the information specified in Attachments B and C of this Appendix.

b. If Defendant is providing Financial Assurance in accordance with Paragraph 10.a(1)(c), then the initial Cost Estimate shall consist of a written Cost Estimate in the form specified in Attachments B and C. The Cost Estimate shall be calculated based on the December 2011 configuration of the Phosphogypsum Stack System(s) at the Operating Facilities and Closing Facilities ("Operating and Closing Facilities") with the configuration of the Phosphogypsum Stack Systems for the Operating and Closing Facilities being updated every five (5) years thereafter (e.g., December 2016, December 2021). All Cost Estimates shall be based on what it would cost to hire a Third Party to complete Phosphogypsum Stack System Closure and Long Term Care in that year, except as provided in Paragraph 1.c., below.

c. Subject to the conditions for access set forth below, Defendant may, if the conditions of this Paragraph 1.c. are met, provide a Cost Estimate that includes a cost for soil from a borrow area at the Facility, based on information provided by the Defendant describing the soil borrow areas to be used (e.g., location), in lieu of the cost to obtain soil from a Third Party. In that event, Defendant agrees that the United States and FDEP, in addition to their right to Financial Assurance as set forth in the Consent Decree, shall have the same legal right of access to and use of such soil, and any equipment necessary to access and process such soil, as Defendant would have. Defendant shall confirm with its Updated Cost Estimate submittal required under Paragraph 4, below, that the United States and FDEP continue to have a right to access and use the soil, that the soil available is sufficient for closure of the Phosphogypsum Stack System, and that Defendant knows of no reasons as to why the United States and FDEP, or their representatives, could not have access to and use of the borrow area(s) and soil. If, for any reason, Defendant or EPA determines that such access cannot be had, or that the available soil in the borrow area is insufficient for closure of the Phosphogypsum Stack System, then Defendant in its next annual Updated Cost Estimate or ninety (90) Days prior to Phosphogypsum Stack System Closure shall submit to EPA a revised Cost Estimate recalculating the soil cost either: (i) based on the cost of soil from a substitute borrow area at the Facility; (ii) based on the cost of soil and transportation from a substitute borrow area in the vicinity of the Facility on property owned by Mosaic Fertilizer, LLC; or (iii) if such substitute borrow area is not available, as a cost of a Third Party buying the soil for closure of the Phosphogypsum Stack System, and shall provide any additional or alternative Financial Assurance necessary to cover this cost. If Defendant has established Financial Assurance pursuant to Paragraph 10.a(1)(c) of this Appendix, then such additional cost shall be covered by the Corporate Guarantee until such time as the trust fund is fully funded. Nothing in this Paragraph 1.c. shall be construed as transferring to the United States, FDEP or their representatives any obligation that Defendant may have under the law, including permit requirements, to properly manage, close and/or remediate the soil borrow areas, or otherwise creating such obligations for the United States and/or FDEP, or their duly designated representatives.

d. Lime treatment sludge ponds that are not part of the Defendant's Phosphogypsum Stack System, and that are included in a National Pollutant Discharge Elimination System (NPDES) permit issued by FDEP, shall not be incorporated into the Cost Estimate and shall not be required to be covered by Financial Assurance under this Appendix.

2. Each Cost Estimate shall be calculated as follows:

a. In Current Dollars if Defendant provides Financial Assurance under Section III.A (Type A Financial Assurance), below; or

b. In Current Dollars for Phosphogypsum Stack System Closure and using NPV for Long Term Care if Defendant provides the Financial Assurance pursuant to Section III.B (Type B Financial Assurance), below. NPV shall be calculated using the 30-Year Treasury Constant Maturity Rate, averaged for the previous twelve (12) months (using the average spot rate for each month) from the date of the annual Cost Estimates, and discounted over the time period for which Long Term Care is required.

3. Defendant shall not include in any Cost Estimate any credit for salvage value or a zero cost for handling hazardous waste with potential future value, as set forth in 40 C.F.R. § 264.142(a)(3)&(4).

4. Defendant shall submit the Updated Cost Estimate, together with supporting documentation, to EPA in the following manner:

a. Defendant shall submit annually to EPA an Updated Cost Estimate reflecting inflationary adjustments to the initial Cost Estimate or prior Updated Cost Estimate, except as set forth in Paragraph 4.c, below. Such adjustment may be made by either method in Paragraph 4.a.(1) or 4a.(2) below, except as otherwise required in this Appendix:

(1) Recalculating the costs, in Current Dollars (i.e., OSWER Directive No. 9476.00-5, Section 4.4.1); or

(2) Using an inflationary factor derived from the most recent Implicit Price Deflator for the Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, in the manner as specified by 40 C.F.R. §§ 264.142(b) and 264.144(b). If the Cost Estimate is due by the end of February, the Defendant shall: (i) use the Implicit Price Deflator for the Gross National Product published for Q1, Q2 & Q3 of the prior year, calculate the change in the Deflator between Q1 and Q2, and the change in Deflator between Q2 and Q3, take the average of these values, and add this average to the Q3 Deflator to impute a Q4 Deflator; or (ii) if the Implicit Price Deflator for the Gross National Product has not been published for Q3 of the prior year by February 10 of the following year, Defendant shall calculate the change in the published Deflator between Q1 and Q2, adding this value both to the Deflator for Q2 to impute a Q3 Deflator and to the imputed Q3 Deflator to impute a Q4 Deflator. If Defendant calculates imputed Deflators by using an average of the change in Deflators from prior quarters, because the actual Implicit Price Deflator for Q3 or Q4 were not then available, annual inflationary adjustments in subsequent years shall be based on the actual Implicit Price Deflator, as and when published values become available. An example of the inflationary factor calculation is provided in Attachment B of this Appendix.

b. Defendant shall submit for the Updated Cost Estimate, unless required to provide an Updated Cost estimate pursuant to Paragraph 4.c., below, a supplement to the Initial Closure Plan updating any new information (e.g., revised closure schedule) and Attachments B and C of this Appendix, except that if Defendant is providing Financial Assurance pursuant to Paragraph 10.a.(1)(c), then Defendant shall provide only Attachment B.

c. Defendant shall:

(1) If providing Financial Assurance other than pursuant to Paragraph 10.a.(1)(c), submit every five (5) years for the annual Updated Cost Estimate, a Cost Estimate with supporting documentation and an updated Initial Closure Plan (if needed), reflecting cost

adjustments (e.g., revised treatment protocols, additional studies; treatment costs, material and labor cost increases, etc.) as specified in Paragraph 4.c.(3), below. Defendant shall provide the Updated Cost Estimate and associated documentation five (5) years after the submittal of the initial Cost Estimate (pursuant to Paragraph 1.a. of this Appendix). Defendant shall also provide such an Updated Cost Estimate for a Facility: (i) in the event of a re-evaluation of when the manner and extent of the operation of the Phosphogypsum Stack System makes the Phosphogypsum Stack System Closure and Long Term Care the most expensive; (ii) with the submittal of the Permanent Phosphogypsum Stack System Closure Plan as specified in Appendix 1, Attachment D of the Consent Decree; and (iii) thirty (30) Days prior to a Facility transfer with the information requested pursuant to Paragraph 35 of this Appendix.

(2) If providing Financial Assurance pursuant to Paragraph 10.a.(1)(c), submit every five (5) years for the annual Updated Cost Estimate, (i) an updated Initial Closure Plan, including detailed Cost Estimate information consistent with the level of detail in Section 3 (and associated Tables) and Attachment 1 (and associated Tables) of the draft 2012 Initial Closure Plans provided by Defendant to EPA and FDEP prior to the lodging of the Consent Decree and (ii) Attachments B and C. The updated Initial Closure Plan and Updated Cost Estimate shall reflect cost adjustments (e.g.,(as applicable), revised treatment protocols, additional studies; revised programmatic and administrative needs; treatment costs, material, and labor cost increases; etc.) and the configuration of the Phosphogypsum Stack System as of December of the prior year (e.g., stack height, acreage to be closed, number of side slope and/or toe drains, volume of process wastewater, leachate, and sludge (within the Phosphogypsum Stack System) to be managed, updated aerial photographs, updated engineering drawings of the Phosphogypsum Stack System, any new components (e.g., cooling pond, ditches)). Such costs shall be adjusted as specified in Paragraph 4.c.(3) below. Defendant shall provide the Updated Cost Estimate and Initial Closure Plan under this Paragraph in 2017, with subsequent Updated Cost Estimates and updated Initial Closure Plans every five (5) years thereafter (e.g., 2022, 2027). Defendant shall also provide such an Updated Cost Estimate for a Facility: (i) at least sixty (60) Days prior to the Defendant constructing a lateral expansion at a Facility referenced in Paragraph 29.b; (ii) with the submittal of the Permanent Phosphogypsum Stack System Closure Plan as specified in Appendix 1, Attachment D of the Consent Decree; and (iii) thirty (30) Days prior to a Facility transfer with the information requested pursuant to Paragraph 35 of this Appendix, unless such Updated Cost Estimate has been performed for such Facility within the prior two (2) years. The submittal of an Updated Cost Estimate under Paragraph 4.c.(2)(i)&(ii), above, shall not alter the five (5)-year schedule for receipt of an Updated Cost Estimate under this Paragraph.

(3) An Updated Cost Estimate submitted under this Paragraph 4.c. shall be adjusted by recalculating the costs, in Current Dollars, as set forth in Paragraph 4.a.(1), above.

(a) In the event a specific cost needed to prepare the Updated Cost Estimate has been updated pursuant to Paragraph 4.a.(1), above, within one (1) year, Defendant may adjust that specific cost pursuant to Paragraph 4.a.(2), above.

(b) In the event a specific cost needed to prepare the Updated Cost Estimate has not been updated pursuant to Paragraph 4.a.(1), above, within one (1) year and is not otherwise available, then Defendant may utilize the most recent update of that specific cost, and adjust that prior cost pursuant to Paragraph 4.a.(2), above, provided that Defendant identifies the specific cost and includes a brief explanation for adjusting the cost pursuant to Paragraph 4.a.(2), above.

d. If providing Financial Assurance under Section III.B (Type B Financial Assurance), in addition to Paragraphs 4.a.-4.c., Defendant shall submit with the initial Cost Estimate and Updated Cost Estimate the calculation and documentation for the average discount rate used for the NPV. In addition, the inflation factor to be used to inflate Long Term Care costs for purposes of deriving the NPV of Long Term Care shall be the mathematical average of the calculated inflation factors for each year over a five (5)-year period. Each year's calculated inflation factor shall be the product of dividing the GDP Deflator for the relevant year by the GDP Deflator for the year immediately prior, beginning with the first year in which the GDP Deflator is an estimate and for each year thereafter until the fifth year. The Gross Domestic Product (GDP) Deflator is as specified in the "GDP (Chained) Price Index" of the Gross Domestic Product Deflators Used in the Historic Tables (Table 10.1), published by the Office of Management and Budget ("OMB"). If the OMB publication is unavailable, in a written agreement not subject to Court approval under Section XVIII (Modification) of the Consent Decree, EPA and Defendant shall identify another method to derive the inflation factor.

e. Defendant shall submit the Updated Cost Estimate, in accordance with this Paragraph, sixty (60) Days prior to the Anniversary Date of the establishment of the Financial Mechanism, except if otherwise provided herein. If more than one Financial Mechanism is being used to establish Financial Assurance, the Updated Cost Estimate shall be submitted sixty (60) Days prior to the earliest Anniversary Date, for a given calendar year, of a Financial Mechanism. Notwithstanding the foregoing, if Defendant is establishing Financial Assurance pursuant to Paragraph 10.a(1)(c), Defendant shall submit Updated Cost Estimate(s) pursuant to this Paragraph 4.e. as follows: (1) Updated Cost Estimate required pursuant to Paragraph 4.c. by March 31, 2017, and by March 31 every five (5) years thereafter; and (2) Updated Cost Estimate required by Paragraph 4.a. by the end of February in 2018 and in all years thereafter except when the Updated Cost Estimate is provided under 4.e.(1), above.

5. Notwithstanding the provisions of Section XII (Information Collection and Retention) of the Consent Decree, Defendant shall maintain, or have electronic access to (such that upon request the information can be readily downloaded and printed), at the Facility for the duration of this Consent Decree the Updated Cost Estimate.

III. Financial Assurance for Phosphogypsum Stack System Closure and Long Term Care

6. Within thirty (30) Days of the Effective Date of the Consent Decree or within thirty (30) Days of EPA's approval of Defendant's initial Cost Estimate, whichever is later, and on the first Anniversary Date and annually thereafter, Defendant's CFO shall provide to EPA an originally signed CFO Certification, together with supporting documentation, confirming that it has established Financial Assurance for Phosphogypsum Stack System Closure and Long Term Care, in an amount no less than the Total Florida Cost Estimate and pursuant to the requirements of either Section III.A (Type A Financial Assurance) or Section III.B (Type B Financial Assurance), of this Appendix, at Defendant's election. If Defendant is providing Financial Assurance pursuant to Paragraph 10.a(1)(c), Defendant's CFO shall provide a CFO Certification in accordance with Paragraph 29.d of this Appendix within fifteen (15) Days after such Financial Assurance has initially been provided.

7. Once Defendant establishes either Section III.A (Type A Financial Assurance) or Section III.B (Type B Financial Assurance) (hereinafter also known as Section III.A or Section III.B, respectively) for Phosphogypsum Stack System Closure and Long Term Care, it shall maintain such Financial Assurance pursuant to the requirements of Section III.A or Section III.B, as applicable, unless EPA approves a request to provide Financial Assurance pursuant to the other Section (i.e., Section III.A or Section III.B, as applicable). If Defendant wishes to request such a change in its Financial Assurance as specified above, then Defendant shall submit to EPA for approval: (a) an originally signed CFO Certification, together with supporting documentation, explaining in detail the reasons for the request; and (b) proposed Financial Assurance, compliant with the applicable Section III.A or Section III.B requirements, that can become effective within thirty (30) Days of EPA's approval. Defendant shall not cancel its existing Financial Assurance for Phosphogypsum Stack System Closure and Long Term Care until it receives EPA's written approval of Defendant's request and the alternate Financial Assurance is in effect (e.g., trust fund is funded; insurance policy is in effect). If Defendant is providing Section III.A (Type A Financial Assurance) pursuant to Paragraph 10.a.(1)(c), a request to substitute another form of Section III.A (Type A Financial Assurance), or substitute Section III.B (Type B Financial Assurance), EPA's approval of such a request, shall not release the Defendant from its obligation to maintain the existing Florida Phosphogypsum Trust Fund. EPA's determination whether to approve Defendant's request to provide alternate Financial Assurance may take into account Defendant's ability to promptly comply with the requirements of the other of Section III. A or Section III.B, its financial stability, and other such factors and proposals as Defendant may advance in requesting the change.

A. Type A Financial Assurance

8. Financial Assurance for Phosphogypsum Stack System Closure and Long Term Care under this Section III.A (Type A Financial Assurance) must comply with the requirements of 40 C.F.R. §§ 264.143(a)-(i), 264.145(a)-(i), 264.148, and 264.151, except as clarified and modified in this Section III.A.

9. Defendant shall use the Cost Estimate generated pursuant to Section II (Cost Estimate), above, in lieu of the cost estimates required pursuant to 40 C.F.R. §§ 264.142 and 264.144 unless otherwise directed in this Appendix, to establish Financial Assurance under this Section III.A. Defendant shall establish Section III.A (Type A Financial Assurance) in an amount at least equal to the Total Florida Cost Estimate.

10. Defendant shall choose from the Financial Mechanisms specified in 40 C.F.R. §§ 264.143(a)-(f) and 264.145(a)-(f) to establish Section III.A (Type A Financial Assurance), provided that, if Defendant is using Third-Party Mechanisms (a trust fund, letter of credit, surety bond, or insurance), the Trustee of any trust fund, or the provider of any letter of credit, surety bond, or insurance shall not be a Related Party to Defendant. Defendant shall word the Financial Mechanism as specified in 40 C.F.R. § 264.151 unless EPA provides an alternate form, e.g., to address more than one beneficiary of the Financial Mechanism (i.e., EPA and the State) or as otherwise provided by this Appendix.

a. For a trust fund, Defendant shall comply with 40 C.F.R. §§ 264.143(a) and 264.145(a), except as modified below:

(1) In lieu of complying with 40 C.F.R. §§ 264.143(a)(3)-(4) and 264.145(a)(3)-(4), Defendant shall either:

(a) Fully fund the trust within thirty (30) Days of the Effective Date of the Consent Decree or within ten (10) Days of EPA's approval of Defendant's initial Cost Estimate, whichever is later;

(b) Submit to EPA for approval an originally signed CFO Certification, together with supporting documentation, explaining in detail Defendant's inability to immediately fund the trust fund, and including a proposal for a pay-in period of no longer than three (3) years, with at least fifty percent (50%) of the Phosphogypsum Stack System Closure and Long Term Care Cost Estimate to be funded in the first year. Any subsequent request for an extension to an approved pay-in period shall be made at least 180 Days before the close of an approved pay-in period, and shall include an originally signed CFO Certification explaining in detail why a longer pay-in period is needed, together with supporting documentation. Such approvals by EPA shall be in its unreviewable discretion; or

(c) Establish, in accordance with Paragraphs 29 and 30, a trust fund in the amount of five hundred sixteen million, three hundred four thousand U.S. dollars ($516.304M) for the benefit of EPA and FDEP, no later than thirty (30) Days after the Effective Date of the Consent Decree or by January 11, 2016, whichever is later. Defendant shall also, to meet its obligations under this Paragraph 10.a.(1)(c), comply with the requirements of Section VIII.A. (Compliance Schedule: Type A Financial Assurance) of this Appendix.[2] The signatures of the United States and the State of Florida to the Consent Decree shall constitute approval by EPA and FDEP for Defendant to establish a trust fund pursuant to Section VIII.A (Compliance Schedule: Type A Financial Assurance) of this Appendix.

(2) In lieu of 40 C.F.R. § 264.151(a), Defendant shall use the exact wording as specified in Form 1-A, Attachment D of this Appendix, for the Trust Agreement. The Defendant may enter into an addendum to the Trust Agreement ("Addendum") provided that: (a) the Addendum supplements and does not contain terms that conflict, supersede, revise or alter the terms of the Trust Agreement (or the requirements of Appendix 2); and (b) the Addendum is approved by EPA in advance, such approval is within EPA's unreviewable discretion. A Trust Agreement must be accompanied by a formal certification of acknowledgement.

(3) Defendant shall update any associated schedules or exhibits of the Trust Agreement, as appropriate, within sixty (60) Days after a change in the amount of the Total Florida Cost Estimate.

(4) Defendant or any other person authorized to conduct Phosphogypsum Stack System and Long Term Care activities shall seek reimbursement for itemized invoices pursuant to 40 C.F.R. §§ 264.143(a)(10) and 264.145(a)(11).

(5) In addition to the requirements of 40 C.F.R. §§ 264.143(a) and 264.145(a), unless the Defendant is complying with Paragraph 10.a.(1)(c) and thus subject to Paragraph 30.g, below, Defendant shall pay all expenses incurred by the Trustee in connection with the administration of the trust fund, including reasonable fees for legal services rendered to the Trustee, and compensation of the Trustee.

b. For a surety bond guaranteeing payment or performance, Defendant shall comply with 40 C.F.R. §§ 264.143(b)&(c) and 264.145(b)&(c), except that:

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[2] If Defendant uses and complies with this option (i.e., provides a trust fund, letter of credit, and corporate guarantee), it shall not be subject to the requirements of Paragraph 10, other than this Paragraph 10.a(1)(c) and Paragraph 10.c (in conjunction with Paragraph 31 of this Appendix), unless otherwise agreed to by the Parties.

(1) In addition to the requirements of 40 C.F.R. §§ 264.143(b)(1)&(c)(1) and 264.145(b)(1)&(c)(1), Defendant shall provide an originally signed certification from either the Defendant (CFO Certification) or an officer of A.M. Best or an NRSRO, documenting that the surety has at least a "secured" financial strength rating of "A" by A.M. Best or an equivalent rating by the NRSRO.

(2) In lieu of 40 C.F.R. §§ 264.143(b)(4)(ii)&(c)(5) and 264.145(b)(4)(ii)&(c)(5), upon notice to Defendant and the surety of a determination by EPA that Defendant has failed to perform Phosphogypsum Stack System Closure and/or Long Term Care as required by Appendix 1 of this Consent Decree, and following the conclusion of any dispute resolution (which shall not include judicial review) under Section XI (Dispute Resolution) of the Consent Decree, the surety under the terms of the bond will perform Phosphogypsum Stack System Closure and/or Long Term Care as directed by EPA or will deposit the amount of the penal sum into the stand-by trust fund.

(3) In the event that Defendant must provide alternate Financial Assurance pursuant to 40 C.F.R. §§ 264.143(b)(4)(iii)&(c)(4)(ii) and 264.145(b)(4)(iii)&(c)(4)(ii), such required approval by EPA shall be subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree, but not judicial review.

c. For a letter of credit, Defendant shall comply with 40 C.F.R. §§ 264.143(d) and 264.145(d), except as modified below:

(1) In addition to the requirements of 40 C.F.R. §§ 264.143(d)(1) and 264.145(d)(1), as applicable, Defendant shall provide an originally signed CFO Certification documenting that the provider of the letter of credit is a federally insured financial institution.

(2) In lieu of 40 C.F.R. §§ 264.143(d)(8) and 264.145(d)(9), upon EPA's notice that Defendant has failed to perform Phosphogypsum Stack System Closure and/or Long Term Care, pursuant to Section VI (Work Takeover) of the Consent Decree, EPA may draw on the letter of credit, pursuant to Section VI (Work Takeover) of the Consent Decree and subject to the dispute resolution provisions set forth in Sections VI (Work Takeover) and XI (Dispute Resolution) of the Consent Decree.

(3) In lieu of 40 C.F.R. §§ 264.143(d)(2), 264.145(d)(2) and 40 C.F.R. § 264.151(d), Defendant shall use the exact wording as specified in Form 3, Attachment D of this Appendix, for the letter of credit and the associated cover letter accompanying the letter of credit.

(4) In the event that Defendant must provide alternate Financial Assurance pursuant to 40 C.F.R. §§ 264.143(d)(9)and 264.145(d)(10) due to cancellation (i.e., 40 C.F.R. §§ 264.143(d)(5) and 264.145(d)(5)):

(a) In the event that Defendant disputes the cancellation by the issuing financial institution, Defendant shall not seek dispute resolution pursuant to Section IX (Dispute Resolution), including judicial review, of EPA's determination to draw on the letter of credit;

(b) EPA's determination to call in the letter of credit due to the adequacy of the alternate Financial Assurance (i.e., EPA does not approve the alternate Financial Assurance) shall be subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree, including judicial review;

(c) Defendant shall not seek release of the funds in the stand-by trust from the letter of credit until the dispute has been resolved in Defendant's favor or Defendant has provided alternate Financial Assurance that has been approved by EPA; and

(d) EPA shall not direct the Trustee to make reimbursements or payments, until the dispute has been resolved, from: (i) a stand-by trust established for the purpose of accepting funds from a letter of credit; or (ii) that portion of a trust fund which is attributable to a letter of credit that has been drawn upon, unless EPA has invoked (Section VI (Work Takeover) of the Consent Decree.

d. For insurance, Defendant shall comply with 40 C.F.R. §§ 264.143(e) and 264.145(e), and shall provide an originally signed certification from either the Defendant (CFO Certification) or an officer of A.M. Best or an NRSRO, documenting that the insurer has at least a "secured" financial strength rating of "A" by A.M. Best or an equivalent rating by the NRSRO. Defendant also shall:

(1) Comply with 40 C.F.R. §§ 264.143(e)(8) and 264.145(e)(8), except that in lieu of 40 C.F.R. §§ 264.143(e)(8)(i)-(v) and 264.145(e)(8)(i)-(v) the following conditions are substituted: (a) EPA determines that the Facility has been abandoned; (b) the Work required under this Consent Decree is undertaken by EPA; (c) Phosphogypsum Stack System Closure, partial Phosphogypsum Stack System Closure, or Long Term Care is ordered by EPA or by a U.S. District Court or other court of competent jurisdiction; (d) Defendant is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or (e) the premium due is paid.

(2) Submit annually a Certificate of Insurance and a complete copy of the insurance policy, including amendments and endorsements.

(3) Notify EPA if it has cause to believe that it will not be able to make a premium payment.

(4) Ensure the assignment requirements of 40 C.F.R. §§ 264.143(e)(7) and 264.145(e)(7) are incorporated into the insurance policy exactly as written, with no additional qualifying conditions.

(5) Ensure that the policy does not allow or offer coverage for liabilities other than those contemplated by the Consent Decree.

e. For the corporate financial test, Defendant (including Defendant's Guarantor), shall comply with 40 C.F.R. §§ 264.143(f) and 264.145(f), except that:

(1) In lieu of complying with 40 C.F.R. §§ 264.143(f)(1)(ii)(A) and 264.145(f)(1)(ii)(A), Defendant shall use the current rating of either Standard & Poor's ("S&P") Long-Term Issuer Credit Rating or Moody's long-term Corporate Family Rating, which assesses a company's capacity to meet its long-term (greater than one (1) year) financial commitments, as they come due. The rating must be BBB or greater as issued by S&P, or Baa2 or greater as issued by Moody's. If Defendant has more than one rating, the lower of the two will be used to meet the criteria in 40 C.F.R. §§ 264.143(f) and 264.145(f). If Defendant with multiple ratings discontinues a rating that is below BBB (S&P) or Baa2 (Moody's), or a rating agency discontinues a rating that is below BBB (S&P) or Baa2 (Moody's), such that the remaining rating(s) subsequently would enable the Defendant to satisfy the corporate financial test criteria, Defendant shall provide alternate Financial Assurance and shall be disqualified from using the corporate financial test for two (2) years.

(2) The phrase "all Environmental Obligations" is substituted for "current closure and post-closure cost estimates and current plugging and abandonment cost estimates" found in 40 C.F.R. §§ 264.143(f)(1) and 264.145(f)(1).

(3) The term "assets" specified in 40 C.F.R. §§ 264.143(f)(1)(i)(D)&(ii)(D) and 264.145(f)(1)(i)(D)&(ii)(D) shall be replaced by the term "tangible assets."

(4) In lieu of complying with 40 C.F.R. §§ 264.143(f)(3) and 264.145(f)(3), Defendant shall document its satisfaction of the corporate financial test by submitting to EPA within ninety (90) Days after the close of Defendant's fiscal year, for each year Defendant is providing a Self-Assurance Mechanism:

(a) A letter signed by Defendant's CFO worded exactly as specified in Form 4-A, Attachment D of this Appendix ("CFO Letter").

(b) A copy of the independent CPA report on examination of Defendant's audited financial statements for the latest completed fiscal year that Defendant is using for the basis of the financial test.

(c) A copy of the audited financial statements for the last completed year.

(d) A report of procedures and findings from Defendant's independent CPA, resulting from an agreed-upon procedures engagement performed in accordance with the AICPA Statement on Standards for Attestation Engagements, AT Section 201 – Agreed Upon Procedures Engagements (including AICPA related attestation interpretations), as updated, that describes the procedures performed and related findings, including whether or not differences or discrepancies were found in the comparison of financial information set out in the letter (including attachments and exhibits) from Defendant's CFO and Defendant's Independently Audited, year-end financial statements for the last fiscal year, including all attachments. Where differences or discrepancies exist between Defendant's CFO Letter and Defendant's Independently Audited year-end financial statements, the report of procedures and findings will reconcile any differences or discrepancies between the values or information represented in Defendant's CFO Letter and Defendant's Independently Audited financial statements. Procedures to be performed by the independent CPA shall be in accordance with AT Section 201.

(5) In addition to complying with 40 C.F.R. §§ 264.143(f)(6) and 264.145(f)(6), if Defendant determines at any time during the fiscal year that it no longer meets or will not meet the requirements of this Paragraph 10.e, Defendant shall provide alternate Financial Assurance pursuant to the requirements of Section III.A (Type A Financial Assurance) and Section VII (Temporary Non-Compliance) of this Appendix. If EPA determines that Defendant has failed to provide alternate Financial Assurance as required by this Paragraph 10.e.(5), such determination by EPA is not subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree, and is not subject to judicial review.

(6) Within thirty (30) Days of notice from EPA that EPA, pursuant to 40 C.F.R. §§ 264.143(f)(7) and 264.145(f)(7), no longer believes that Defendant meets the requirements of the corporate financial test criteria of Paragraph 10.e., or that EPA disallows the use of the corporate financial test based on qualifications in the opinion expressed by the independent CPA as set out in 40 C.F.R. §§ 264.143(f)(8) and 264.145(f)(8), Defendant shall establish alternate Financial Assurance as required by 40 C.F.R. §§ 264.143(f)(7)&(8) and 264.145(f)(7)&(8) pursuant to this Section III.A (Type A Financial Assurance). Defendant's failure to timely establish alternate Financial Assurance is not subject to Section VII (Temporary Non-Compliance) of this Appendix. EPA's determination to disallow the Financial Assurance provided by the Self-assurance Mechanism based on the Defendant's (or Defendant's Guarantor's) independent CPA's adverse or disclaimer opinion based on examination of the financial statement's shall be subject to dispute resolution under Section XI (Dispute Resolution) of the Consent Decree, but shall not be subject to judicial review.

(7) In addition to complying with 40 C.F.R. §§ 264.143(f) and 264.145(f), Defendant shall:

(a) If more than sixty percent (60%) of Defendant's tangible assets are in the form of one (1) or more note receivables from one (1) or more Related Parties, submit to EPA, when providing the information required by Paragraph 10.e.(4), above, and 40 C.F.R. §§ 264.143(f)(5) and 264.145(f)(5), an originally signed CFO Certification together with a list of each note receivable, the name of the Related Party and a description (along with any necessary documentation) of the Related Party's financial strength, to demonstrate that each Related Party maintains the financial strength to meet its obligation to the Defendant.

(b) On a quarterly basis, using the sum of the most recent four (4) quarters' financial statements (including balance sheets, income statements, and cash flow statements), reviewed by an independent CPA, evaluate Defendant's ability to meet the criteria of the corporate financial test.

f. For the Corporate Guarantee, Defendant shall comply with 40 C.F.R. §§ 264.143(f)(10) and 264.145(f)(11), as modified by Paragraph 10.e. above, and shall meet the requirements specified below:

(1) Defendant may use a Non-U.S. Corporation as Guarantor only if the following conditions are met: (a) the Non-U.S. Corporation has identified a registered agent for service of process in the State in which the facility covered by the Guarantee is located and in the State in which it has its principal place of business; (b) Defendant submits to EPA a written legal opinion from an Independent Attorney, prior to the execution of the Guarantee, confirming that a Guarantee executed as required under this Section by the non-U.S. Guarantor is a legally valid and an enforceable obligation in the State(s); (c) the Non-U.S. Corporation provides Independently Audited financial statements in conformance with GAAP; (d) the total amount of the Non-U.S. Corporation's present and proposed Guarantee's (including self-guarantees) to cover all Environmental Obligations in the United States shall not exceed twenty-five percent (25%) of the Non-U.S. Corporation's tangible net worth in the United States; and (e) the written Guarantee reflects the Non-U.S. Corporation's (Guarantor's) agreement to comply with the reporting requirements required under the Consent Decree and that within thirty (30) Days of executing the Guarantee the Guarantor will establish a stand-by trust with a financial institution within the continental United States, Alaska, or Hawaii.

(2) Defendant shall use the exact wording as specified in Form 5-A, Attachment D of this Appendix, for the Corporate Guarantee. The certified copy of the Corporate Guarantee must accompany the items sent to EPA, in accordance with Section XV (Notices) of the Consent Decree, as specified in Paragraph 10.e.(3) of this Appendix.

11. If Defendant seeks to provide:

a. More than one Third-Party Mechanism to demonstrate Financial Assurance for Phosphogypsum Stack System Closure and Long Term Care, pursuant to 40 C.F.R. §§ 264.143(g) and 264.145(g), Defendant shall submit to EPA an originally signed CFO Certification verifying that the Third-Party Mechanisms do not incorporate terms subrogating one Financial Mechanism to another, i.e., designating a prioritization for the release of the funds or the payment of a claim. EPA, if the need arises, will determine in its unreviewable discretion the priority for the release of funds or payment of a claim.

b. A Financial Mechanism establishing Financial Assurance at more than one Facility pursuant to 40 C.F.R. §§ 264.143(h) and 264.145(h), Defendant:

(1) Shall not provide a single trust fund or insurance policy to cover the multiple Facilities in different States, but shall provide each affected State with its own distinct trust fund or insurance policy;

(2) May use the same letter of credit or surety bond for multiple Facilities provided that the following conditions are met: (a) the Facilities' EPA Identification Numbers, names, addresses, and the Phosphogypsum Stack System Closure and Long Term Care Cost Estimate(s) associated with each particular Facility are clearly specified in the Financial Mechanism; and (b) the Financial Mechanism clearly states that there can be a release of funds for a specified Facility without requiring the entire obligation covered by the Financial Mechanism to be placed in the stand-by trust(s); and

(3) Shall not release funds designated for one or more Facilities in another State except upon written agreement of EPA, Defendant, and the affected State(s).

c. If Defendant is providing Financial Assurance pursuant to Paragraph 10.a.(1)(c), Defendant will comply with the requirements of Paragraph 29.c. in lieu of the requirements set forth in Paragraphs 11.a. and 11.b., above.

B. Type B Financial Assurance

12. Financial Assurance under this Section III.B (Type B Financial Assurance) must comply with the requirements of 40 C.F.R. §§ 264.143(a)-(b)&(d)-(i), 264.145(a)-(b)&(d)-(i), 264.148, and 264.151, except as clarified and modified in this Section III.B (including Attachment E). Defendant shall use the Cost Estimates generated pursuant to Section II (Cost Estimate), above, in lieu of the cost estimates required pursuant to 40 C.F.R. §§ 264.142 and 264.144 unless otherwise directed by this Appendix, to establish Financial Assurance under this Section III.B. Defendant shall provide Section III.B (Type B Financial Assurance) in an amount at least equal to the Total Florida Cost Estimate.

13. The options and requirements for Type B Financial Assurance depend upon Defendant's threshold rating, which shall be based on: (a) current S&P Long-Term Issuer Credit Rating of AAA through BB-; (b) current Moody's Corporate Family Rating of Aaa though Ba3; or (c) an equivalent current rating from an NRSRO that assesses a company's capacity to meet its long-term (greater than one (1) year) financial commitments, as they come due. If Defendant has more than one rating, it shall use the lowest rating to determine its threshold rating.

14. A Defendant that qualifies to use a Self-Assurance Mechanism based on its threshold rating and Attachment E shall use only one Self-Assurance Mechanism. When required under Attachment E to provide a Third-Party Mechanism in combination with a Self-Assurance Mechanism, Defendant shall use a trust fund unless permitted to substitute another type of Third-Party Mechanism pursuant to Paragraphs 16 and 17, below. Defendant shall meet the minimum threshold amount specified in Attachment E to be funded in, or covered by, a Third-Party Mechanism.

15. Defendant shall use the Financial Mechanisms specified in 40 C.F.R. §§ 264.143(a)-(b)&(d)-(f) and 264.145(a)-(b)&(d)-(f) to establish Type B Financial Assurance as

set out in Attachment E and below, provided that, if Defendant is using Third-Party Mechanisms (a trust fund, letter of credit, surety bond guaranteeing payment, or insurance), the Trustee of any trust fund, or the provider of any letter of credit, surety bond guaranteeing payment, or insurance shall not be a Related Party to Defendant. Defendant shall word the Financial Mechanism as specified in 40 C.F.R. § 264.151, unless EPA provides an alternate form, e.g., to address more than one beneficiary of the Financial Mechanism (i.e., EPA and the State). Defendant shall also comply with the requirements of 40 C.F.R. §§ 264.143(a)(7)-(8), (b)(7), (d)(7) & (e)(9) and 264.145 (a)(7)-(8), (b)(7), (d)(7) & (e)(9), except that the corpus of the trust fund, the penal sum of the payment surety bond, the value of the letter of credit, or the limit of liability of the insurance policy shall not be reduced to reflect reductions in the Cost Estimates until such time as the Updated Cost Estimate is equivalent to the corpus of the trust fund, the penal sum of the payment surety bond, the value of the letter of credit, or the limit of liability of the insurance policy. In addition, Defendant shall comply with the requirements of 40 C.F.R. §§ 264.143(a)(10)&(e)(5) and 264.145(a)(11)&(e)(9), except as provided for in Paragraph 19 of this Appendix. If Financial Assurance is provided by multiple Third-Party Mechanisms pursuant to Paragraph 17 of this Appendix, the individual value of the Third-Party Mechanisms shall not be reduced to reflect any reductions in the Cost Estimate until such time as the Updated Cost Estimate is equivalent to the sum of the total obligations covered by the Third-Party Mechanisms.

a. For a trust fund, Defendant shall comply with 40 C.F.R. §§ 264.143(a) and 264.145(a), except that:

(1) In lieu of complying with 40 C.F.R. §§ 264.143(a)(3)-(4) & 264.145(a)(3)-(4), Defendant shall fully fund the trust within thirty (30) Days of the Effective Date of the Consent Decree or within ten (10) Days of EPA's approval of Defendant's initial Cost Estimate, whichever is later, as specified in Paragraph 5. If Defendant is unable to fully fund the trust fund, Defendant within ten (10) Days of EPA's approval of the initial Cost Estimate shall submit to EPA for approval an originally signed CFO Certification, together with supporting documentation, explaining in detail Defendant's inability to immediately fund the trust fund, and including a proposal for a pay-in period of no longer than three (3) years, with at least fifty percent (50%) of the initial Cost Estimate to be funded in the first year. Any subsequent request for an extension to an approved pay-in period shall be made at least 180 Days before the close of an approved pay-in period, and shall include an originally signed CFO Certification explaining in detail why a longer pay-in period is needed, together with supporting documentation.

(2) In lieu of 40 C.F.R. § 264.151(a), Defendant shall use the exact wording as specified in Form 1-A, Attachment D of this Appendix, for the Trust Agreement. The Defendant may enter into an addendum to the Trust Agreement ("Addendum") provided that: (a) the Addendum supplements and does not contain terms that conflict, supersede, revise or alter the terms of the Trust Agreement (or the requirements of Appendix 2); and (b) the Addendum is approved by EPA in advance, such approval is within EPA's unreviewable discretion. The Trust Agreement must be accompanied by a formal certification of acknowledgment.

(3) Defendant shall update Schedule A of the Trust Agreement within sixty (60) Days after a change in the amount of the Cost Estimate.

(4) In addition to the requirements of 40 C.F.R. §§ 264.143(a) and 264.145(a), Defendant shall pay all expenses incurred by the Trustee in connection with the administration of the trust fund, including fees for legal services rendered to the Trustee and compensation of the Trustee.

(5) Defendant or any other person authorized to conduct Phosphogypsum Stack System and Long Term Care activities shall seek reimbursement for itemized invoices pursuant to 40 C.F.R. §§ 264.143(a)(10) and 264.145(a)(11).

b. For a surety bond guaranteeing payment, Defendant shall comply with 40 C.F.R. §§ 264.143(b) and 264.145(b), except that:

(1) In addition to the requirements of 40 C.F.R. §§ 264.143(b)(1) and 264.145(b)(1), Defendant shall provide an originally signed certification from either the Defendant (CFO Certification) or an officer of A.M. Best or an NRSRO, documenting that the surety has at least a "secured" financial strength rating of "A" by A.M. Best or an equivalent rating by the NRSRO.

(2) In lieu of 40 C.F.R. §§ 264.143(b)(4)(ii) and 264.145(b)(4)(ii), upon notice to Defendant and the surety of a determination by EPA that Defendant has failed to perform Phosphogypsum Stack System Closure and/or Long Term Care as required by Appendix 1 of this Consent Decree, and following the conclusion of any dispute resolution (which shall not include judicial review) under Section XI (Dispute Resolution) of the Consent Decree, the surety under the terms of the bond will deposit the amount of the penal sum into the stand-by trust fund.

(3) In the event that Defendant must provide alternate Financial Assurance pursuant to of 40 C.F.R. §§ 264.143(b)(4)(iii) and 264.145(b)(4)(iii), such required approval by EPA shall be subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree, but not judicial review.

c. For a letter of credit, Defendant shall comply with 40 C.F.R. §§ 264.143(d) and 264.145(d), except that:

(1) In addition to the requirements of 40 C.F.R. §§ 264.143(d)(1) and 264.145(d)(1), Defendant shall provide an originally signed CFO Certification documenting that the provider of the letter of credit is a federally insured financial institution.

(2) In lieu of 40 C.F.R. §§ 264.143(d)(8) and 264.145(d)(9), upon notice to Defendant of a determination by EPA that Defendant has failed to perform Phosphogypsum Stack System Closure and/or Long Term Care as required by Appendix 1 of this Consent Decree and following the conclusion of any dispute resolution (which shall not include judicial review) under Section XI (Dispute Resolution) of the Consent Decree, EPA may draw on the letter of credit

(3) In the event that Defendant must provide alternate Financial Assurance pursuant to 40 C.F.R. §§ 264.143(d)(9) and 264.145(d)(10), such required approval by EPA shall be subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree, but not judicial review.

d. For insurance, Defendant shall comply with 40 C.F.R. §§ 264.143(e) and 264.145(e), and shall provide an originally signed certification from either the Defendant (CFO Certification) or an officer of A.M. Best or an NRSRO, documenting that the insurer has at least a "secured" financial strength rating of "A" by A.M. Best or an equivalent rating by the NRSRO. Defendant also shall:

(1) Comply with 40 C.F.R. §§ 264.143(e)(8) and 264.145(e)(8), except that in lieu of 40 C.F.R. §§ 264.143(e)(8)(i)-(v) and 264.145(e)(8)(i)-(v) the following conditions are substituted: (a) EPA determines that the Facility has been abandoned; (b) the Work required under this Consent Decree is undertaken by EPA; (c) Phosphogypsum Stack System Closure, partial Phosphogypsum Stack System Closure, or Long Term Care is ordered by EPA or by a U.S. District Court or other court of competent jurisdiction; (d) Defendant is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or (e) the premium due is paid.

(2) Submit annually a Certificate of Insurance and a complete copy of the insurance policy, including amendments and endorsements.

(3) Notify EPA if it has cause to believe that it will not be able to make a premium payment.

(4) Ensure that the assignment requirements of 40 C.F.R. §§ 264.143(e)(7) and 264.145(e)(7) are incorporated into the insurance policy exactly as written, with no additional qualifying conditions.

(5) Ensure that the policy does not allow or offer coverage for liabilities other than those contemplated by the Consent Decree.

e. For the corporate financial test and Corporate Guarantee, Defendant (and Defendant's Guarantor) shall comply with 40 C.F.R. §§ 264.143(f) and 264.145(f), except that:

(1) The phrase "all Environmental Obligations" is substituted for "current closure and post-closure cost estimates and current plugging and abandonment cost estimates" found in 40 C.F.R. §§ 264.143(f)(1) and 264.145(f)(1).

(2) In lieu of complying with 40 C.F.R. §§ 264.143(f)(1)(i)-(ii) and 264.145(f)(1)(i)-(ii), Defendant shall:

(a) Meet the corporate financial test criteria specified in Attachment E which corresponds to Defendant's rating threshold as specified in Paragraph 13, above. If a Defendant with multiple ratings discontinues, or S&P, Moody's, or an NRSRO discontinues, the lower of the ratings, Defendant shall for a period of two (2) years commencing on Defendant's fiscal year-end apply the criteria and requirements of Attachment E (and this Paragraph) as if the lower rating were in effect. If during that two (2) year period, a change in Defendant's other rating(s) results in Defendant not satisfying the corporate financial test or becoming subject to a more stringent set of corporate financial test criteria under Attachment E, Defendant shall provide Financial Assurance as specified in Paragraphs 15.e.(4)(a) and 18.

(b) Calculate the three (3)-year rolling average specified in Attachment E for the Debt-to-Equity Ratio (TL/NW), Current Ratio, or the Operating Cash Flow metric ("OCF metric") as follows: (i) TL/NW is a three (3)-year rolling average of total liabilities divided by three (3)-year rolling average of net worth; (ii) CA/CL is a three (3)-year rolling average of current assets divided by three (3)-year rolling average of current liabilities; and (iii) OCF metric is a three (3)-year rolling average of operating cash flow, except for a Defendant with an S&P rating of BB-, Moody's rating of Ba3 or an equivalent rating from an NRSRO who shall calculate the OCF metric annually.

(c) Not use the OCF metric to demonstrate Financial Assurance if Defendant has a negative cash flow for that fiscal year.

(3) In lieu of complying with 40 C.F.R. §§ 264.143(f)(3) and 264.145(f)(3), Defendant shall document its satisfaction of the corporate financial test by submitting to EPA within ninety (90) Days after the close of Defendant's fiscal year, for each year Defendant is providing a Self-Assurance Mechanism:

(a) A letter signed by Defendant's CFO worded exactly as specified in Form 4-B, Attachment D of this Appendix.

(b) A copy of the independent CPA report on examination of Defendant's audited financial statements for the latest completed fiscal year that Defendant is using for the basis of the financial test.

(c) A copy of the audited financial statements for the last completed year.

(d) A report of procedures and findings from Defendant's independent CPA, resulting from an agreed-upon procedures engagement performed in accordance with the AICPA Statement on Standards for Attestation Engagements, AT Section 201 - Agreed Upon Procedures Engagements (including AICPA related attestation interpretations), as updated, that describes the procedures performed and related findings, including whether or not differences or discrepancies were found in the comparison of financial information set out in the letter (including attachments and exhibits) from Defendant's CFO and Defendant's Independently Audited, year-end financial statements for the last fiscal year, including all attachments. Where differences or discrepancies exist between Defendant's CFO Letter and Defendant's Independently Audited year-end financial statements, the report of procedures and findings will reconcile any differences or discrepancies between the values or information represented in Defendant's CFO Letter and Defendant's Independently Audited financial statements. Procedures to be performed by the independent CPA shall be in accordance with AT Section 201.

(4) In addition to complying with 40 C.F.R. §§ 264.143(f)(6) and 264.145(f)(6), if Defendant determines at any time during the fiscal year that:

(a) It no longer meets or will not meet the requirements of this Paragraph 15.e. (including the loss of a threshold rating except as provided by Paragraph 15.e.(2)(a), above), Defendant shall within ten (10) Days send written notice to EPA of this determination, by certified mail, stating the basis for such a determination. If Defendant cannot re-establish compliance with the requirements of this Paragraph 15.e. pursuant to Section VII (Temporary Non-Compliance) and/or Section VIII.B (Compliance Schedule: Type B) of this Appendix, the Defendant, within thirty (30) Days of its notice to EPA as specified above, shall provide alternate Financial Assurance for Phosphogypsum Stack System Closure and Long Term Care pursuant to Paragraph 18, below.

(b) Its threshold rating requires Defendant to change from one set of corporate financial test criteria under Paragraph 15.e.(2), above, and Attachment E (e.g., CFT Criteria A) to a more stringent set of corporate financial test criteria (e.g., CFT Criteria C), Defendant shall notify EPA within ten (10) Days of the change in corporate financial test criteria and within thirty (30) Days of such notice shall submit to EPA a revised corporate financial test or Corporate Guarantee based on the most recent evaluation conducted under Paragraph 15.e.(6)(c), below, demonstrating compliance with the more stringent corporate financial test criteria. To the extent necessary, Defendant shall at the same time make a contribution to the Third-Party Mechanism to comply with the minimum threshold amount specified in the corporate financial test requirements in Paragraph 15.e.(2), above.

(c) If EPA determines that Defendant has failed to provide alternate Financial Assurance as required, or complied with Paragraphs 15.e.(4)(a) and (4)(b), such determination by EPA is not subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree, and is not subject to judicial review.

(5) Within thirty (30) Days of notice by EPA that EPA, pursuant to 40 C.F.R. §§ 264.143(f)(7) and 264.145(f)(7), no longer believes that Defendant meets the corporate financial test criteria in Paragraph 15.e.(2), above, or that EPA disallows the use of the corporate financial test based on qualifications in the opinion expressed by the independent CPA as set forth in 40 C.F.R. §§ 264.143(f)(8) and 264.145(f)(8), Defendant shall provide alternate Financial Assurance as required by 40 C.F.R. §§ 264.143(f)(7)&(8) and 264.145(f)(7)&(8) pursuant to Paragraph 18 of this Appendix. Defendant's failure to timely provide alternate Financial

Assurance is not subject to Section VII (Temporary Non-Compliance) of this Appendix. EPA's determination to disallow the Financial Assurance provided by the Self-Assurance Mechanism based on the Defendant's (or Defendant's Guarantor's) independent CPA's adverse or disclaimer opinion based on examination of the financial statement's shall be subject to dispute resolution under Section XI (Dispute Resolution) of the Consent Decree, but is not subject to judicial review.

(6) In addition to complying with 40 C.F.R. §§ 264.143(f) and 264.145(f), Defendant shall:

(a) If Defendant with an S&P rating of BB-, Moody's rating of Ba3, or an equivalent NRSRO rating, receives a negative outlook posted on one or more of its ratings, or receives a qualified opinion from an independent CPA, or is delisted from an Exchange for any reason other than: (i) Defendant's decision to take the company into private ownership, or (ii) a transaction which results in the acquisition of Defendant (or Defendant's ultimate parent corporation) by another company subjecting Defendant to Section X (Business Transactions) of this Appendix, then Defendant shall within ten (10) Days of such an event send written notice by certified mail of such event to EPA, and within thirty (30) Days of such notice shall provide an alternate form of Financial Assurance, in compliance with Paragraph 18 of this Appendix. In the event that the delisting is due to Defendant's decision to take the company into private ownership Defendant may continue to provide Financial Assurance using the Financial Mechanism(s) already in place if, within twenty (20) Days of the delisting, it provides documentation to EPA from S&P, Moody's or the NRSRO confirming that Defendant meets a current S&P Long-Term Issuer Credit Rating, Moody's long-term Corporate Family Rating, or equivalent current rating from an NRSRO, as specified in Paragraph 13 of this Appendix.

(b) If more than sixty percent (60%) of Defendant's tangible assets are in the form of one (1) or more note receivables from one (1) or more Related Parties, submit to EPA, when providing the information required by Paragraph 15.e.(3), above, and 40 C.F.R. §§ 264.143(f)(5) and 264.145(f)(5), an originally signed CFO Certification by the Defendant's CFO together with a list of each note receivable, the name of the Related Party and a description (along with any necessary documentation) of the Related Party's financial strength, to demonstrate that each Related Party maintains the financial strength to meet its obligation to the Defendant.

(c) On a quarterly basis prepare and use financial statements (including balance sheets, income statements, and cash flow statements), reviewed by an independent CPA, to evaluate Defendant's ability to meet the criteria of the corporate financial test. To meet the criteria involving rolling averages, the averages shall be based on the results as of the end of the same quarter for the prior years (i.e., a three (3)-year rolling average evaluated at the end of the first quarter for Year X shall include the results from the first quarter of Year X-2 and X-1). In addition, Operating Cash Flow for this evaluation shall be based on the results from the most recent four (4) quarters (i.e., for a first quarter analysis, the Operating Cash Flow shall be based on the results from the second quarter of the previous year through the first quarter of the current year). The same adjustment shall be made for the OCF metric for prior periods if the criteria involve the use of a rolling average.

(d) If Defendant with a S&P rating of BBB- through BB, a Moody's rating of Baa3 through Ba2, or an equivalent rating from an NRSRO receives a negative outlook posted

on one or more of its ratings, or receives a qualified opinion rendered by an independent CPA, Defendant within twenty (20) Days of such event shall submit to EPA a revised corporate financial test based on the most recent evaluation conducted under Paragraph 15.e.(6)(c), above.

f. For the Corporate Guarantee, Defendant shall comply with 40 C.F.R. §§ 264.143(f)(10) and 264.145(f)(11), and shall meet the requirements specified below, if applicable.

(1) Defendant may use a Non-U.S. Corporation as a Guarantor only if the following conditions are met: (a) Non-U.S. Corporation meets the requirements of Paragraph 10.f. of this Appendix, and (b) Non-U.S. Corporation has a current rating for either the S&P long-term issuer credit rating of AAA through BBB, Moody's long-term corporate family rating of Aaa though Baa2 or an equivalent rating from an NRSRO that assesses a company's capacity to meet its long-term (greater than one (1) year) financial commitments, as they come due.

(2) Defendant shall use the exact wording as specified in Form 5-A, Attachment D of this Appendix, for the Corporate Guarantee. The certified copy of the Corporate Guarantee must accompany the items sent to EPA, in accordance with Section XV (Notices) of the Consent Decree, as specified in Paragraph 15.e.(3) of this Appendix.

16. Defendant may submit annually, for EPA approval, a request to use a letter of credit, surety bond guaranteeing payment, or insurance in lieu of the trust find required under Paragraph 14, above. Defendant shall include in its request documentation demonstrating compliance with Financial Assurance under this Subsection III.B. Defendant may not rely upon the letter of credit, payment surety bond, or insurance to establish compliance with this Appendix until EPA has approved the Third-Party Mechanism. Defendant shall comply with the letter of credit, payment surety bond, or insurance requirements of Paragraph 15 of this Appendix, as applicable. Defendant shall also demonstrate compliance with Paragraph 11 of this Appendix. EPA's determination whether or not to accept Defendant's request is subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree, but is not subject to judicial review.

17. Defendant may submit annually, for EPA approval, a request to use multiple Third-Party Mechanisms (i.e., trust fund, letter of credit, surety bond guaranteeing payment, and insurance) in conjunction with a Self-Assurance Mechanism, together with supporting documentation, to demonstrate Financial Assurance for Phosphogypsum Stack System Closure and Long Term Care. Defendant shall not rely upon the additional Third-Party Mechanism to establish compliance with this Consent Decree until EPA has approved the additional Third-Party Mechanism. Defendant shall also demonstrate compliance with Paragraph 11 of this Appendix. EPA's determination whether or not to accept Defendant's request is subject to dispute resolution under Section XI (Dispute Resolution) of the Consent Decree, but is not subject to judicial review.

18. If Defendant at any time becomes ineligible to rely on a Self-Assurance Mechanism pursuant to this Section III.B, and cannot re-establish such eligibility pursuant to Section VII (Temporary Non-Compliance) and/or Section VIII.B (Compliance Schedule: Type B) of this Appendix, then Defendant shall establish alternate Financial Assurance based on Current Dollars by: (a) maintaining the existing Financial Assurance in the trust fund (or as approved, other

Third-Party Mechanism) as established pursuant to Paragraph 14; (b) providing additional Financial Assurance using Third-Party Mechanism(s) pursuant to Paragraphs 10.a-d, except for Paragraph 10.a.(1)(c); and (c) meeting the requirements of Paragraph 11 of this Appendix when providing more than one Financial Mechanism. If Defendant meets the above requirements and EPA approves the alternate Financial Assurance (including the termination of a Corporate Guarantee if provided), Defendant does not need to meet the requirements of Paragraph 15 of this Appendix. Defendant shall continue to be subject to Section III.B (Type B Financial Assurance), as set forth in this Paragraph 18, unless EPA approves a request to change to Section III.A (Type A Financial Assurance) pursuant to Paragraph 6 of this Appendix.

19. If the Total Florida Cost Estimate at the commencement of Defendant's fiscal year is less than or equal to the value of the following Third-Party Mechanism(s), trust fund or insurance, then Defendant, may draw upon the Third-Party Mechanism(s) to pay for Phosphogypsum Stack System Closure and Long Term Care. Otherwise, Defendant shall first draw upon the resources of the Self-Assurance Mechanism before drawing upon a Third-Party Mechanism to pay for Phosphogypsum Stack System Closure or Long Term Care. If EPA approves the use of multiple Third-Party Mechanisms under Paragraph 17, above, EPA will designate the priority for drawing on the Third-Party Mechanisms and EPA's designation shall not be subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree, and shall not be subject to judicial review.

IV. Financial Assurance for Corrective Action

20. If EPA is the primary Agency responsible for implementing Corrective Action under the Consent Decree, the Defendant shall comply with this Section and upon EPA request and to the extent of EPA's authority under applicable law, shall also provide financial assurance for related, third party liability. If EPA is not the primary Agency responsible for implementing Corrective Action under the Consent Decree, Financial Assurance for Corrective Action shall be governed by the terms of Paragraph 25 of the Consent Decree.

21. Defendant shall, within thirty (30) Days of receiving approval by EPA of any Risk Assessment Plan or Interim Measures Plan required pursuant to Paragraphs 17 or 19 in Attachment A of Appendix 1 of the Consent Decree, provide a detailed written Corrective Action Cost Estimate for the work required under the applicable Plan ("Plan Work"). Defendant shall, within twenty (20) Days of EPA's approval of the Corrective Action Cost Estimate, demonstrate and provide to EPA Financial Assurance for the Plan Work in accordance with the requirements of Section III.A (Type A Financial Assurance), except for Paragraph 10.a.(1)(c), of this Appendix as applied to the Plan Work. If Defendant wishes to seek a waiver of all or part of the Financial Assurance, or wishes to propose an alternative form or reduced amount of Financial Assurance, Defendant shall submit a request to EPA explaining the basis for the proposed waiver, or alternative or reduced Financial Assurance, together with supporting documentation. Until such time as EPA approves the proposed waiver, or alternate or reduced Financial Assurance in writing, Defendant shall provide Financial Assurance in the amount of the approved Corrective Action Cost Estimate in accordance with Section III.A (Type A Financial Assurance), except for Paragraph 10.a.(1)(c), of this Appendix as applied to the Plan Work.

22. Within thirty (30) Days of receiving written approval by EPA of any Corrective Action Plan required pursuant to Paragraph 18 of Attachment A of Appendix 1 of the Consent Decree, or any corrective action assessment by EPA for the Zone of Discharge required pursuant to Section D of Attachment B of Appendix 1 of the Consent Decree, Defendant shall submit to EPA for approval a proposed Financial Assurance Plan to implement the applicable Plan Work. The proposed Financial Assurance Plan shall include, as appropriate:

a. A Corrective Action Cost Estimate for each stage of the Plan Work.

b. A proposed Financial Mechanism, or set of Mechanisms, to provide Financial Assurance for the Plan Work, selected from the options set forth in Section (Type A Financial Assurance), except for Paragraph 10.a.(1)(c), of this Appendix (e.g., trust fund, surety bond, insurance, letter of credit, corporate financial test, or Corporate Guarantee) as applied to the Plan Work. If Defendant wishes to propose an alternate form or reduced amount of Financial Assurance, wishes to provide Financial Assurance in phases corresponding to the estimated costs for each stage of Plan Work or wishes to seek a waiver of all or part of the Financial Assurance required under this Section IV, Defendant shall submit a request to EPA explaining the basis for the proposed alternate, reduced or phased Financial Assurance, or the waiver of all or part of the Financial Assurance, together with supporting documentation, for approval.

c. A proposed schedule (on at least a semi-annual basis) to update the Corrective Action Cost Estimate pursuant to Paragraph 22.b., above, to reflect inflationary adjustments and/or changes to the Plan Work.

23. Within thirty (30) Days of EPA's approval of Defendant's Financial Assurance Plan, Defendant shall provide Financial Assurance for the Plan Work in an amount no less than the approved Corrective Action Cost Estimate, and in accordance with the Financial Assurance Plan approved by EPA.

V. Financial Assurance for Third Party Liability

24. Within thirty (30) Days of the Effective Date of the Consent Decree, and on the first Anniversary Date and annually thereafter, Defendant's CFO shall provide to EPA a Financial Mechanism for Third Party Liability along with an originally signed CFO Certification, together with supporting documentation, confirming that it has established Financial Assurance to compensate a third-party for bodily injury or property damage that might result from sudden accidental or non-sudden accidental occurrences associated with the Phosphogypsum Stack System Closure or Long Term Care at the Facility ("Financial Assurance for Third Party Liability"). If Defendant is providing Financial Assurance for Phosphogypsum Stack System Closure and Long Term Care pursuant Paragraph 10.a.(1)(c), Defendant shall, notwithstanding the schedules set forth in Paragraph 25, provide the Financial Mechanism and information required for Third Party Liability in accordance with the schedule and deadlines in Paragraph 29.d. The Financial Assurance for Third Party Liability shall comply with 40 C.F.R. § 264.147, except as provided in Paragraph 25, below, and in lieu of complying with 40 C.F.R. § 264.147(e) Defendant shall maintain such Financial Assurance for the duration of Phosphogypsum Stack System Closure or Long Term Care. If Defendant wishes to propose an adjustment to the amount of Financial Assurance pursuant to 40 C.F.R. § 264.147(c), Defendant shall submit to EPA for approval an originally signed CFO Certification and, as set forth in 40 C.F.R. § 264.147(c), explaining the basis for the proposed adjustment, together with supporting documentation. Until

such time as EPA approves the adjusted Financial Assurance in writing, Defendant shall provide Financial Assurance for Third Party Liability as required herein. Nothing in this Paragraph shall be construed to waive or limit EPA's right, pursuant to 40 C.F.R. § 264.147(d), to adjust the level of Financial Assurance required in 40 C.F.R. § 264.147(a)&(b). EPA's determination of whether or not to approve Defendant's request under 40 C.F.R. § 264.147(c) is subject to dispute resolution under Section XI (Dispute Resolution) of the Consent Decree, but not judicial review.

25. Defendant's Financial Assurance for Third Party Liability shall comply with F.A.C. R. 62-730(180)1, which incorporates by reference 40 C.F.R. §§ 264.147(a)-(b)&(f)-(j), and 264.151(g), (h)(2) & (i)-(n), except as otherwise provided in the F.A.C., and as modified by this Paragraph. If Defendant is using a trust fund, letter of credit, or surety bond, the Trustee of any trust fund, or the provider of any letter of credit, or surety bond shall not be a Related Party to Defendant. Defendant shall word the Financial Mechanism as specified in 40 C.F.R. § 264.151, except the term "facility" shall substitute for the phrase "hazardous waste facility," and unless EPA provides an alternate form.

a. For a surety bond or for insurance, Defendant shall demonstrate that the surety and the insurer have at least a "secured" financial strength rating of "A" by A.M. Best or an equivalent rating by an NRSRO. Such demonstration shall be in the form of an originally signed certification from either the Defendant (CFO Certification) or an officer of A.M. Best or the NRSRO.

b. For a letter of credit, Defendant shall ensure that the provider of the letter of credit is a federally insured financial institution.

c. For the corporate financial test, Defendant shall:

(1) In lieu of 40 C.F.R. § 264.147(f)(1)(ii)(A), use the current rating for either the S&P Long-Term Issuer Credit Rating or Moody's long-term Corporate Family Rating which assesses a company's capacity to meet its long-term (greater than one (1) year) financial commitments, as they come due.

(2) In lieu of the provision at 40 C.F.R. § 264.147(f)(3), demonstrate that it meets the corporate financial test by submitting the following to EPA thirty (30) Days after the Effective Date of the Consent Decree, and on the first Anniversary Date and annually thereafter:

(a) A letter signed by Defendant's CFO and as worded in 40 C.F.R. § 264.151(g) ("CFO TPL Letter").

(b) A copy of the independent CPA's report on examination of Defendant's audited financial statements for the latest completed fiscal year.

(c) A copy of the Independently Audited financial statements for the last completed year.

(d) A report of procedures and findings from Defendant's independent CPA, resulting from an agreed-upon procedures engagement performed in accordance with the AICPA Statement on Standards for Attestation Engagements, AT Section 201 - Agreed Upon Procedures Engagements (including AICPA related attestation interpretations), as updated, that describes the procedures performed and related findings, including whether or not differences or discrepancies were found in the comparison of financial information included in the letter (including attachments and exhibits) from Defendant's CFO and Defendant's Independently Audited, year-end financial statements for the last fiscal year, including all attachments. Where differences or discrepancies exist between Defendant's CFO TPL Letter and Defendant's Independently Audited year-end financial statements,

the report of procedures and findings will reconcile any differences or discrepancies between the values or information represented in Defendant's CFO TPL Letter and Defendant's Independently Audited financial statements. Procedures to be performed by the independent CPA shall be in accordance with AT Section 201.

d. For a Corporate Guarantee, Defendant shall comply with F.A.C. R. 62-730(180)1, which incorporates by reference 40 C.F.R. § 264.147(g), except as otherwise provided in the F.A.C., and as modified by Paragraph 25.c., and shall meet the requirements specified below:

(1) Submit the documents required under Paragraph 25.c.(2) to EPA thirty (30) Days after the Effective Date of the Consent Decree, and on the first Anniversary Date and annually thereafter;

(2) Use the exact wording as specified in Form 6-A, Attachment D of this Appendix, for the CFO TPL Letter; and

(3) Provide a written Guarantee using the exact wording specified in Form 6-B, Attachment D of this Appendix.

VI. Information Gathering

26. For purposes of Appendix 2, information gathering shall be governed by Paragraphs 26 and 77 of the Consent Decree unless otherwise specified in this Appendix.

VII. Temporary Non-Compliance

27. If Defendant determines that it has violated or may violate any requirement of this Appendix, Defendant shall follow the procedures below. Any dispute raised by Defendant regarding EPA's refusal to approve a plan under this Paragraph shall not prohibit EPA from accessing or collecting on existing Financial Assurance. Defendant shall be deemed to be without Financial Assurance for purposes of enforcement (but not for accessing or collecting Financial Assurance should it be necessary) if Defendant fails to meet a compliance schedule or the terms of a compliance plan under this Appendix.

a. For all non-compliances or anticipated non-compliances, except for those associated with Paragraph 32 of this Appendix, Defendant shall within ten (10) Days of the non-compliance determination submit to EPA an originally signed CFO Certification together with supporting documentation, explaining in detail the nature of the violation and stating whether or not the non-compliance can be rectified by Defendant within thirty (30) Days. If Defendant does not believe that it can rectify the non-compliance within thirty (30) Days, then within ten (10) Days of its notice Defendant shall submit to EPA for approval a plan and schedule for correcting the violation. If applicable, such a plan shall include additional or alternate Financial Assurance. In the event that alternate or additional Financial Assurance is a component of the plan and schedule, then the Financial Assurance shall be provided as soon as possible, but no later than sixty (60) Days after Defendant's notice of the Defendant's non-compliance. Defendant may request additional time to provide the alternate or additional Financial Assurance and such request shall include a detailed explanation and supporting documentation. EPA's determination of whether or not to approve Defendant's plan and schedule for correcting the violation(s) is subject to dispute resolution under Section XI (Dispute Resolution) of the Consent Decree, including judicial review, except that the time frames for notices and submissions under Section XI

(Dispute Resolution) of this Consent Decree shall be reduced by half for any plan requiring alternate or additional Financial Assurance.

b. For all non-compliances or anticipated non-compliances under Paragraph 32, except for Paragraphs 32.j. through 32.m. of this Appendix, Defendant shall within ten (10) Days of the non-compliance determination submit to EPA an originally signed CFO Certification together with supporting documentation, explaining in detail the nature of the violation and stating whether or not the non-compliance can be rectified by Defendant within thirty (30) Days. If Defendant does not believe that it can rectify the non-compliance within thirty (30) Days, then within ten (10) Days of its notice Defendant shall submit to EPA for approval a plan and schedule for correcting the violation. In the event that alternate or additional Financial Assurance is to be provided by a Third-Party Mechanism, then the Financial Assurance shall be provided as soon as possible, but no later than sixty (60) Days after Defendant's notice of the Defendant's non-compliance. Defendant may request additional time to provide the alternate or additional Financial Assurance and such request shall include a detailed explanation and supporting documentation. EPA's determination of whether or not to approve Defendant's plan and schedule for correcting the violation(s) is subject to dispute resolution under Section XI (Dispute Resolution) of the Consent Decree, including judicial review except that the time frames for notices and submissions under Section XI (Dispute Resolution) of this Consent Decree shall be reduced by half for any plan that requires alternate or additional Financial Assurance.

c. If Defendant is unable to provide alternate Financial Assurance as required by Paragraphs 32.j. through 32.m., and Defendant requests additional time to secure and provide alternate Financial Assurance under Paragraphs 32.j. through 32.m., Defendant shall submit to EPA for approval a plan and schedule for providing such alternate Financial Assurance. Such plan may include the continued role of the Guarantor under a Corporate Guarantee.

(1) The proposed plan and schedule shall provide that the Alternate Financial Assurance will be established as soon as possible by no later than sixty (60) Days after notice of the non-compliance. Defendant may request additional time to provide the alternate Financial Assurance and such request shall include a detailed explanation and supporting documentation.

(2) In the event that the proposed plan and schedule includes a continued role for the Guarantor under a Corporate Guarantee, Defendant shall submit with the plan updated information under Paragraph 32.h from the Guarantor, and a CFO Certification from the Guarantor's CFO certifying as to the amount of financial resources that the Guarantor expects to have available for the next fiscal year to either perform Phosphogypsum Stack Closure and Long Term Care activities at the Operating and Closing Facilities or to provide alternate Financial Assurance. Such certification shall be required annually, and submitted along with the information provided under the Corporate Guarantee.

(3) EPA's determination of whether or not to approve Defendant's plan and schedule for providing alternate Financial Assurance, as required by Paragraphs 32.j, 32.l, and 32.k for an EPA decision based on an independent CPA's adverse or qualified opinion, is subject to dispute resolution under Section XI (Dispute Resolution) of the Consent Decree, including judicial review except that Defendant shall seek any such judicial review in Court within seven (7) Days after the conclusion of the dispute resolution period, and the position of EPA shall become effective unless stayed or modified by the Court within twenty (20) Days of the conclusion of the dispute resolution period. EPA's determination of whether or not to approve Defendant's plan and schedule for providing alternate Financial Assurance as required by Paragraphs 32.k. (except for EPA decision based on an independent CPA's adverse or qualified opinion) and 32.m. is subject

to dispute resolution under Section XI (Dispute Resolution) of the Consent Decree, including judicial review. The time frames for notices and submissions under Section XI (Dispute Resolution) of this Consent Decree shall be reduced by half.

28. Defendant shall not be subject to stipulated penalties pursuant to Section IX (Stipulated Penalties) of the Consent Decree for temporary non-compliance with this Appendix provided that: (a) Defendant complies with the notice and submittal requirements of Paragraph 27, above; (b) EPA approves the plan and schedule for correcting the violation, including any additional or alternative Financial Assurance; (c) Defendant within ten (10) Days of EPA's approval commences the correction of the violation in accordance with the approved schedule, including if applicable the establishment of any additional or an alternate form of Financial Assurance; and (d) EPA determines that Defendant's violation is not due to Defendant's lack of diligence or good faith (the burden of proving this shall rest with Defendant).

VIII. Compliance Schedule

A. Type A Financial Assurance

29. In the event that the Defendant establishes Financial Assurance pursuant to Section III.A (Type A Financial Assurance), Paragraph 10.a.(1)(c), Defendant shall meet the following:

a. Defendant shall:

(1) Deposit $516.304 Million into a trust fund ("Florida Phosphogypsum Trust Fund") that shall be set up in accordance with Paragraph 30, below, for the Phosphogypsum Stack System Closure of the Operating Facilities and for the Long Term Care at the Operating and Closing Facilities no later than thirty (30) Days after the Effective Date of the Consent Decree or by January 11, 2016, whichever is later;

(2) Provide a letter of credit by December 31, 2017, in the aggregate amount of $50 Million, in accordance with Paragraph 31, below; and

(3) Provide an executed Corporate Guarantee, in accordance with Paragraph 32, below, in the amount represented by the Florida Financial Assurance Delta. The signed Guarantee is attachment to this Appendix (Attachment I) and will be in effect as of the Effective Date of the Consent Decree.

b. For each Facility:

(1) Financial Assurance provided by Defendant pursuant to this Section VIII.A shall apply only to and shall satisfy all requirements concerning Financial Assurance for Phosphogypsum Stack System Closure and Long Term Care under this Consent Decree with respect to:

(a) The current configuration of the Phosphogypsum Stack System at the Operating and Closing Facilities, as reflected in Attachment F, Exhibit F-1 (i.e., existing Phosphogypsum Stack System), including any increase in height within that configuration and its current footprint up to its design height, and

(b) Any planned lateral expansion(s) of the existing Phosphogypsum Stack System at the Operating Facilities as identified by the Defendant in 2015 (i.e., Attachment F, Exhibit F-2, and identified in Attachment G: Baseline as "Planned Future Expansion Closure Area") ("Planned Expansion"): (i) that qualifies as a "Covered Expansion" under Paragraph 29.b.(2) below, and (ii) that becomes part of the Phosphogypsum Stack System

configuration (i.e., fully-engineered and constructed) upon and in accordance with any requisite approvals by FDEP pursuant to the laws and regulations of Florida. Nothing in this Paragraph or in the Consent Decree shall be construed to limit, alter or supersede the permitting and approval authorities of FDEP with respect to the permitting or timing and conditions of the Planned Expansion(s).

(2) The Planned Expansion shall be a Covered Expansion if it meets either of the following criteria, below, to be determined at the time the Planned Expansion(s) is fully engineered and the information required by Paragraph 29.b.(3), below, has been submitted (the "Determination Date"):

(a) The Total Phosphogypsum Volume[3] in the Phosphogypsum Stack System anticipated at the Determination Date (calculated pursuant to Paragraph 29.b.(3), below) is not more than two point five percent (2.5%) greater than the Total Phosphogypsum Volume anticipated in 2015 (as specified in the Attachment G: Baseline), and the anticipated Total Future Closure Area at the Determination Date (calculated pursuant to Paragraph 29.b.(3), below) is not more than three percent (3%) greater than the Total Future Closure Area anticipated in 2015 (as specified in Attachment G: Baseline); or

(b) The sum of the following is not more than five percent (5%):

(i) The percent (%) change between the Total Phosphogypsum Volume anticipated at the Determination Date (calculated pursuant to Paragraph 29.b.(3), below) and the Total Phosphogypsum Volume anticipated in 2015 (as specified in the Attachment G: Baseline), and

(ii) The percent (%) change between the Total Future Closure Area anticipated at the Determination Date (calculated pursuant to Paragraph 29.b.(3), below) and the Total Future Closure Area anticipated in 2015 (as specified in the Attachment G: Baseline).

(c) Defendant shall, in making the calculations required by Paragraph 29.b.(2)(b), above, substitute zero ("0") for a negative percentage that may be generated when comparing the Total Phosphate Volume or the Total Future Closure Area as of the Determination Date to the 2015 baseline.

(3) Defendant shall submit to EPA information regarding the Planned Expansion(s) at the Operating Facilities as follows:

(a) If Defendant has not provided the information regarding the Planned Expansion(s) at the Operating Facilities identified by Defendant in 2015 using the form in Attachment G, prior to the Effective Date of the Consent Decree, then Defendant shall submit such information to EPA (the "Attachment G: Baseline") within thirty (30) Days of the Effective Date of the Consent Decree to use as a baseline in determining if the Planned Expansion(s) once fully engineered is a Covered Expansion.

(b) Defendant shall submit updated information regarding the Planned Expansion using the form in Attachment G (the "Attachment G: Updated"), within 45 (forty-five) Days of the time that a Planned Expansion has been fully-engineered. The information submitted shall be used to determine if the Planned Expansion as fully engineered is a Covered Expansion. Attachment G: Updated shall include the following adjustments, if applicable:

[3] Total Phosphogypsum Volume is utilized herein as an approximate surrogate for pore water volume.

(i) If Defendant has not installed an intermediate liner as identified in the 2015 baseline as reflected in Attachment G: Baseline at the corresponding average stack elevation prior to activation of the Planned Expansion, then the Total Phosphogypsum Volume shall be revised in the Attachment G: Updated to account for the lack of the intermediate liner by adding in the corresponding values of phosphogypsum volume deducted for that anticipated liner as previously calculated and reflected in the Attachment G: Baseline in the column labelled "Phosphogypsum Volume to be Added if Intermediate Liner is Not Installed as Planned (acre-feet)."

(ii) If Defendant has, after 2015, either lined or closed an isolated section of the Phosphogypsum Stack System or has installed an intermediate liner for such section that had not been identified in the 2015 Attachment G, the volume of phosphogypsum beneath the intermediate or other liner at the time of liner installation may be reduced at the rate of eight percent (8%) annually for the period following the installation of the liner until the Determination Date, when calculating the Total Phosphogypsum Volume on the Updated Attachment G.

(iii) If Defendant, after 2015, closes a portion of the stack top area or slope area earlier than scheduled to be closed, the corresponding area(s) may be deducted from the Total Future Closure Area in the Updated Attachment G, provided there are no then-planned lateral or vertical expansions that would require re-activating the closed areas.

(4) Notwithstanding the adjustments in Paragraph 29.b.(3)(b), above, a Planned Expansion shall not be considered a Covered Expansion if the total area of the Planned Expansion as fully engineered exceeds the area of the Planned Expansion as specified in Attachment F (Figure F-2) and the Attachment G: Baseline (i.e., "Future Expansion Closure Area") by more than eight percent (8%).

(5) Defendant shall provide financial assurance under applicable State law and regulations for:

(a) Any new Phosphogypsum Stack, new Phosphogypsum Stack System, or new expansion of a Phosphogypsum Stack System (i.e., any lateral expansions, increased height above the design height as of 2015, new cooling pond or other form of expansion, in each case to the extent not identified in Attachment F); and

(b) A Planned Expansion that exceeds the criteria for a Covered Expansion. The financial assurance shall be in an amount equal to the difference in the (i) costs of Phosphogypsum Stack System Closure and Long Term Care between the Planned Expansion as anticipated in 2015 (see Attachment G: Baseline, "Planned Future Expansion Closure Area" and "Planned Future Expansion Phosphogypsum Volume") for the Operating Facility and (ii) the fully-engineered, actual build of the Planned Expansion, as permitted by FDEP, and as reflected in Attachment G: Updated (i.e., "Expansion Closure Area" and "Expansion Phosphogypsum Volume"). This financial assurance, unless otherwise agreed to by FDEP in its sole discretion, is due within ninety (90) Days of submitting the Attachment G: Update.

(6) Defendant shall not use the Financial Mechanisms demonstrating Financial Assurance under this Consent Decree (e.g., Financial Mechanisms specified in Paragraph 29.a. of this Appendix) or that may be required in Paragraphs 27 or 32 of this Appendix, in establishing or

demonstrating compliance with any financial assurance required pursuant to any federal or State law or regulations. Defendant is not precluded from relying on such Financial Mechanisms in satisfying any financial metric or test utilized for financial assurance when permitted under a federal or State law or regulation.

(7) Defendant shall archive and maintain the Computer Aided Design ("CAD") files, for the Operating Facilities, which contain the underlying information for the values specified in Attachment G: Baseline. Defendant shall maintain the CAD files until Phosphogypsum Stack System Closure and Long Term Care, pursuant to a Permanent Closure Plan, has been implemented at the New Wales Facility. Defendant shall provide access to the CAD files, or provide the CAD files, within thirty (30) Days of the EPA's request.

c. Defendant shall first draw upon its own resources or a Guarantor's resources (as set forth in Paragraph 32), before requesting any reimbursement or release from the Florida Phosphogypsum Trust Fund or any other Third-Party Mechanism established pursuant to this Section VIII to pay for the Phosphogypsum Stack System Closure and/or Long Term Care at the Operating and Closing Facilities. If EPA approves additional Third-Party Mechanisms, as set out in Section III.A (Type A Financial Assurance) of this Appendix (e.g., insurance), EPA will determine the priority for drawing on the Third-Party Mechanisms and such determination is not subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree and is not subject to judicial review.

d. Within forty five (45) Days of the trust fund being established and funded as set forth in Paragraph 29.a., above, or by March 31 of the calendar year in which the trust fund is established and funded, whichever is later, and on or before the Anniversary Date in the following calendar year and annually thereafter, Defendant shall provide to EPA an originally signed CFO Certification in the form attached hereto as Attachment A from the Defendant's CFO together with supporting documentation, confirming that it has established Financial Assurance for Phosphogypsum Stack System Closure and Long Term Care at the Operating and Closing Facilities in a total amount no less than the Total Florida Cost Estimate. The Anniversary Date under this Section XVIII.A. of the Appendix shall be March 31.

30. Defendant shall with respect to the Florida Phosphogypsum Trust Fund comply with the requirements of Paragraph 10.a.(1)(c), and the following requirements of 40 C.F.R. §§ 264.143(a)(1)-(2), (7) & (9)-(11) and 264.145(a)(1)-(2), (7) & (9)-(12), as applicable and as modified below:

a. In addition to the applicable requirements of 40 C.F.R. §§ 264.143(a)(1) and 264.145(a)(1), Defendant shall:

(1) When replacing an existing Trustee with a successor ("Successor Trustee") use the following criteria listed below. Notwithstanding the criteria for a Successor Trustee, EPA and FDEP reserve all legal and equitable rights under the law to take any action to protect its interests in the trust fund.

(a) The Successor Trustee identified by the Defendant must be the Trust Department of a Bank or a professional Trustee, be able to hold trust assets in secure custody, not be subject to a conflict of interest, be able to account for trust assets and income to the Grantor, Beneficiaries and tax authorities as required by law, maintain records of trust transactions, and meet the responsibilities of a Trustee established by State and federal law.

(b) In establishing that the Successor Trustee can meet the criteria listed in Paragraph 30.a.(1)(a), above, Defendant shall consider at a minimum the Successor Trustee's trust management experience, the length of time served as a Trustee, the investment experience of the Successor Trustee and whether the Successor Trustee is regulated, bonded and insured.

(2) Prior to terminating the Trustee, Defendant shall consult with EPA explaining the purpose or benefit of such termination and identifying the proposed Successor Trustee. If the Defendant terminates the Trustee, Defendant shall provide notice to EPA and FDEP when providing notice to the Trustee.

(3) Defendant has proposed, and EPA and FDEP have approved, Russell Investments as the initial Trustee of the Florida Phosphogypsum Trust Fund.

b. In lieu of 40 C.F.R. § 264.151(a), Defendant shall use the exact wording as specified in Form 1-B, Attachment D of this Appendix, for the Trust Agreement. The Defendant may enter into an addendum to the Trust Agreement ("Addendum") provided that: (a) the Addendum supplements and does not contain terms that conflict, supersede, revise or alter the terms of the Trust Agreement (or the requirements of Appendix 2); and (b) the Addendum is approved by EPA in advance, such approval is within EPA's unreviewable discretion. EPA has approved an Addendum included as Form 2, Attachment D of this Appendix. The Trust Agreement must be accompanied by a formal certification of acknowledgement.

c. In accordance with Paragraph 10.a.(1)(c) (and in lieu of 40 C.F.R. § 264.143(a)(3)-(4) and 40 C.F.R. § 264.145(a)(3)-(4)), and as specified in Paragraph 29.a., above, Defendant shall deposit $516.304 Million into the Florida Phosphogypsum Trust Fund for the benefit of EPA and FDEP. Payments from the Florida Phosphogypsum Trust Fund shall be in accordance with the reimbursement procedures set forth in Paragraph 30.d., below, or the release procedure set forth in Paragraph 30.e., below, and the Trust Agreement.

d. Defendant shall, when requesting reimbursement from the Florida Phosphogypsum Trust Fund, meet the requirements of 40 C.F.R. § 264.143(a)(10) and 40 C.F.R. § 264.145(a)(11) except as modified below:

(1) Defendant shall not seek reimbursement from the Florida Phosphogypsum Trust Fund for Phosphogypsum Stack System Closure at the Closing Facilities in Florida.

(2) Defendant shall not seek reimbursement from the Florida Phosphogypsum Trust Fund for Phosphogypsum Stack System Closure and/or Long Term Care related-costs for the Operating Facilities and Long Term Care related-costs for the Closing Facilities unless the value of the Florida Phosphogypsum Trust Fund equals or exceeds the Total Florida Cost Estimate at the time reimbursement is sought. Defendant may, when the Florida Phosphogypsum Trust Fund value equals or exceeds the Total Florida Cost Estimate, seek reimbursement for Phosphogypsum Stack System Closure and/or Long Term Care at the Florida Facilities related-costs only if sufficient funds are available to cover the Total Florida Cost Estimate.

(3) Defendant shall not seek reimbursement from the Florida Phosphogypsum Trust Fund for taxes paid on the Florida Phosphogypsum Trust Fund unless the value of the Florida Phosphogypsum Trust Fund equals or exceeds the Total Florida Cost Estimate at the time reimbursement is sought. When the Florida Phosphogypsum Trust Fund value equals or exceeds the Total Florida Cost Estimate, Defendant may seek reimbursement for taxes paid on the Florida Phosphogypsum Trust Fund only if sufficient funds are available to cover the Total Florida Cost Estimate and Defendant complies with the requirement of Paragraph 30.g., below.

(4) For any initial reimbursement each year, Defendant shall submit a Total Florida Cost Estimate in accordance with Paragraph 4.c. (i.e., a Cost Estimate reflecting cost adjustments), and for any subsequent reimbursement in that year, submit a Total Florida Cost Estimate if there has been any significant cost adjustments and/or changes to the Florida Phosphogypsum Stack System.

(5) In addition, Defendant shall when seeking reimbursement from the Florida Phosphogypsum Trust Fund direct the Trustee to provide EPA with a current (i.e., as of a date within seven (7) Days of the date Defendant is requesting the reimbursement) accounting of the Florida Phosphogypsum Trust Fund.

e. Defendant shall when requesting release of funds from the Florida Phosphogypsum Trust Fund meet the requirements of 40 C.F.R. §§ 264.143(a)(7) and 264.145(a)(7)&(10), except as modified below:

(1) Defendant shall not seek release of funds from the Florida Phosphogypsum Trust Fund unless the value of the Florida Phosphogypsum Trust Fund equals or exceeds the Total Florida Cost Estimate at the time release is sought.

(2) Defendant may seek a release of funds when the Florida Phosphogypsum Trust Fund value equals or exceeds the Total Florida Cost Estimate only if sufficient funds are available to cover the Total Florida Cost Estimate.

(3) Defendant shall, when seeking a release of funds from the Florida Phosphogypsum Trust Fund, direct the Trustee to provide EPA with a current (i.e., as of a date within seven (7) Days of Defendant's request for the release) accounting of the Florida Phosphogypsum Trust Fund.

f. Defendant when seeking termination of the Florida Phosphogypsum Trust Fund shall comply with 40 C.F.R. §§ 264.143(a)(11) and 264.145(a)(12), and Defendant shall not seek termination of the Florida Phosphogypsum Trust Fund until all Phosphogypsum Stack System Closure and Long Term Care activities have been completed and certified pursuant to Attachment D, Appendix 1 of the Consent Decree, for all Operating and Closing Facilities.

g. Defendant shall pay all taxes of any kind that may be assessed or levied against or with respect to the Florida Phosphogypsum Trust Fund. Defendant shall also pay all expenses (e.g., brokerage commissions, accounting services, reasonable fees for legal services rendered to the Trustee, the compensation of the Trustee, costs incurred by the Sub-advisors, penalties, and all other proper charges and disbursements of the Trustee) incurred by the Trustee in connection with the administration and management of the Florida Phosphogypsum Trust Fund. Defendant may pay such taxes and expenses by establishing a trust fund account ("T&E Trust Fund Account"), to be accessed by the Trustee, into which Defendant shall transmit sufficient funds in advance of the date by which the Trustee is required to pay such taxes and/or expenses. The T&E Trust Fund Account shall be established and maintained by the Trustee as a separate and distinct fund from the Florida Phosphogypsum Trust Fund. The T&E Trust Fund Account shall be established on the date that the Florida Phosphogypsum Trust Fund is established pursuant to the Consent Decree. At no time shall there be reimbursement for taxes from the Florida Phosphogypsum Trust Fund except in accordance with Paragraph 30.d., above, and not if such reimbursement will deplete the corpus (i.e., principle and income) of the Florida Phosphogypsum Trust Fund such that the value of the Florida Phosphogypsum Trust Fund no longer equals or exceeds the Total Florida Cost Estimate. In addition, if Defendant seeks reimbursement for taxes under Paragraph 30.d., there shall by no reimbursement from the Florida Phosphogypsum Trust Fund for penalties owed to the Internal Revenue Service or the State's Tax Commission.

h. Defendant shall direct the Trustee and shall ensure that EPA receives, in writing, the following information specified in Paragraphs 30.h.(1)-(3), below. Defendant shall confirm the information has been received by EPA within five (5) Days of the date due and, if such information has not been received by EPA, Defendant shall provide the information within twenty (20) Days of the date the information is due to EPA; provided that if Defendant does not have all the referenced information in its possession, it shall so notify EPA within twenty (20) Days of the date the information is due and shall also identify the steps it is taking to obtain access to any such information it does not have.

(1) Semi-annual trust fund account statements reporting on the growth of the Florida Phosphogypsum Trust Fund and a list of the investments (including the applicable rating).

(2) In connection with all requests for reimbursement or release from the Florida Phosphogypsum Trust Fund, a current (i.e., as of a date within seven (7) Days of Defendant's request) accounting of the fund or subaccount as appropriate.

(3) In the event that Defendant Guarantor's Liquidity Buffer falls below $1 Billion, quarterly Florida Phosphogypsum Trust Fund account statements and a list of the investments (including the applicable rating).

i. Defendant shall direct the Trustee to invest and re-invest the principal and income of the Florida Phosphogypsum Trust Fund with the express purposes of achieving full funding (i.e., the value of the Florida Phosphogypsum Trust Fund equals or exceeds the Total Florida Cost Estimate) as soon as possible, consistent with prudent investment practices, and managing the risk levels of such investments to preserve such principal and income as set forth in this Paragraph 30.i. Defendant shall direct the Trustee to invest and re-invest only in a combination of Investment Grade corporate securities, Investment Grade municipal securities, and U.S. Treasury Securities, as specified below in Paragraphs 30.i.(1)-(2) (and as set out in Schedule C of the Trust Agreement), except for funds deposited from a letter of credit that shall be invested as specified by Paragraph 30.k., below. Defendant may direct the Trustee, upon EPA written approval that is not subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree and is not subject to judicial review, to consider investment in other types of securities or financial vehicles. Nothing in this Paragraph 30.i. shall alter or waive the rights of EPA or FDEP to protect their interest in the Florida Phosphogypsum Trust Fund.

(1) Such investment shall be: (a) no less than forty percent (40%) of the Florida Phosphogypsum Trust Fund shall be U.S. Treasury Securities; (b) commencing twelve (12) months after the Effective Date, no more than five percent (5%) of the Florida Phosphogypsum Trust Fund shall consist of U.S. Treasury Securities with maturities less than three (3) years (not including U.S. Treasury Securities originally purchased with a maturity greater than ten (10) years, and then held to maturity) and all other U.S. Treasury Securities shall have maturities of three (3) years or more; (c) no more than fifteen percent (15%) of the Florida Phosphogypsum Trust Fund in Investment Grade corporate or municipal securities with ratings by a NRSRO of BBB/Baa2 (or the equivalent); and (d) the balance that remains of the Florida Phosphogypsum Trust Fund in Investment Grade corporate or municipal securities with ratings by a NRSRO of at least BBB+/Baa1 (or the equivalent) or above.

(2) For purposes of this Paragraph 30.i.(2), if a security is rated at different levels by different NRSROs, the lower of the ratings shall be utilized. In the event of a downgrading of one or more investments of the Florida Phosphogypsum Trust Fund, resulting in either: (i) the Florida Phosphogypsum Trust Fund holds one or more corporate or municipal securities rated lower than BBB, Baa2 or the equivalent, or (ii) the portion of the Florida Phosphogypsum Trust Fund

invested in corporate or municipal securities rated BBB, Baa2 or the equivalent exceeds fifteen percent (15%), the Trustee shall have a reasonable and prudent period of time to take steps to conform to the requirements of this Paragraph, 30.i.

j. After the Florida Phosphogypsum Trust Fund's value equals or exceeds the Total Florida Cost Estimate, the Florida Phosphogypsum Trust Fund shall be invested only in U.S. Treasury Securities unless EPA in its unreviewable discretion agrees otherwise and the Parties modify this Appendix in accordance with Section XVIII (Modification) of the Consent Decree. At such time, the Trustee shall be afforded a reasonable and prudent period of time to dispose of securities other than U.S. Treasury Securities and to acquire the additional U.S. Treasury Securities.

k. Defendant shall direct the Trustee to invest funds deposited into the stand-by trust (i.e., Florida Phosphogypsum Trust Fund) from the letter of credit into accounts or investments that have no penalty for immediate withdrawals.

l. Defendant shall review the Guarantor's Liquidity Buffer at the close of every month, and if Defendant determines that such Liquidity Buffer has fallen below $1 Billion, then within five (5) Days of the beginning of the following month, Defendant shall direct the Trustee through amended instructions under the Trust Agreement (i.e., Schedule D, Exhibit B) to provide EPA and FDEP with quarterly Florida Phosphogypsum Trust Fund account statements and a list of the securities (including the applicable rating). In addition, Defendant shall notify EPA within five (5) Days of such a determination (i.e., the Liquidity Buffer has fallen below $1 Billion), and that the Trustee will be submitting quarterly account statements.

m. Defendant shall provide the Trustee a copy of this Appendix 2 (and all the attachments).

31. Defendant shall comply with the requirements of Paragraph 10.c., including the referenced requirements of 40 C.F.R.§§ 264.143(d) and 264.145(d), as applicable or as modified below, except for 40 C.F.R.§§ 264.143(d)(1)(2),(6)-(7), and 264.145(d)(1), (2),(6)-(8):

a. Defendant shall establish, as specified by Paragraph 29, above, a letter of credit for $50 Million no later than December 31, 2017, for the benefit of EPA and FDEP.

b. In lieu of 40 C.F.R. §§ 264.143(d)(3) and 264.145(d)(3), Defendant shall use the Florida Phosphogypsum Trust Fund established under Paragraph 29, above, as the stand-by trust and comply with the requirements of Paragraph 30 and the associated Trust Agreement, as applicable, to the letter of credit.

c. In lieu of 40 C.F.R. §§ 264.143(d)(4) and 264.145(d)(4), for the letter from the Defendant that accompanies the letter of credit, Defendant shall use the exact wording specified in Form 3, Attachment D for the letter of credit and the accompanying cover letter.

d. In the event that Defendant is required to provide alternate Financial Assurance pursuant 40 C.F.R. §§ 264.143(d)(5)&(9) and 264.145(d)(5)&(10), the alternate Financial Assurance shall be in the form of a Third-Party Mechanism established for $50 Million.

e. In addition to 40 C.F.R. §§ 264.143(d)(10) and 264.145(d)(11), Defendant shall not seek release of the letter of credit unless: (1) the value of the Florida Phosphogypsum Trust Fund equals or is greater than the Total Florida Cost Estimate; or (2) Defendant makes an additional contribution to the Florida Phosphogypsum Trust Fund of $50 Million, except EPA may agree to take a lesser amount and such a determination by EPA shall not be subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree, and shall not be subject to judicial review.

32. Defendant, in lieu of Paragraph 10.f., shall meet the requirements of 40 C.F.R. §§ 264.143(f)(10) and 264.145(f)(11), as applicable, and as modified below. Defendant shall comply with only those requirements of 40 C.F.R. §§ 264.143(f)(1)-(8) and 264.145(f)(1)-(8), as referenced in of 40 C.F.R. §§ 264.143(f)(10) and 264.145(f)(11), that are set forth in this Paragraph 32.

a. Defendant shall provide a written Corporate Guarantee, as specified below, to cover that portion of its Financial Assurance obligation not covered by the Florida Phosphogypsum Trust Fund established pursuant to Paragraph 30, above, and when issued the letter of credit established pursuant to Paragraph 31, above.

b. Defendant shall, pursuant to 40 C.F.R. §§ 264.143(f)(10) and 264.145(f)(11) and as herein modified, obtain a Corporate Guarantee from a direct or higher-tier parent corporation of the Defendant, a firm whose parent corporation is also the parent corporation of the Defendant, or a firm with a Substantial Business Relationship with the Defendant. If the Guarantor's parent corporation is also the parent corporation of the Defendant, the letter from the CFO specified in Paragraph 32.h.(4), below, shall describe the value received in consideration of the Guarantee. If the Guarantor is a firm with a Substantial Business Relationship with the Defendant, the CFO Letter must describe this Substantial Business Relationship and the value received in consideration of the Guarantee.

c. Defendant shall maintain the Guarantee until such time as: (1) the value of the Florida Phosphogypsum Trust Fund plus the amount of the letter of credit equals or is greater than the Total Florida Cost Estimate, (2) Defendant directs the Trustee to provide EPA with a current (i.e., as of a date within five (5) Days of Defendant's request) accounting of the Florida Phosphogypsum Trust Fund; and (3) EPA affirms in writing to the Defendant that the value of the Florida Phosphogypsum Trust Fund plus the amount of the letter of credit equals or is greater than the Total Florida Cost Estimate.

d. Defendant shall, in lieu of 40 C.F.R. § 264.151(h) as referenced in 40 C.F.R. §§ 264.143(f)(10) and 264.145(f)(11), provide a written Guarantee using the exact wording specified in Form 5-B, Attachment D of this Appendix. A copy of the executed Guarantee shall accompany the items listed in Paragraph 32.h., below.

e. Defendant shall provide a Corporate Guarantee that, pursuant to 40 C.F.R. §§ 264.143(f)(10)(i) and 264.145(f)(11)(i) except as herein modified, requires that if Defendant fails to perform Phosphogypsum Stack System Closure and/or Long Term Care in accordance with the Initial Closure Plan and/or Permanent Closure Plan and other applicable requirements under the Consent Decree whenever required to do so, the Guarantor shall undertake such performance or establish alternate Financial Assurance in accordance with Section III.A (Type A Financial Assurance), except for Paragraph 10.a.(1)(c), in the name of the Defendant in the amount at least equal to the Florida Financial Assurance Delta.

f. Defendant shall provide a Corporate Guarantee that requires Defendants' Guarantor to provide a Representation and Certification as worded in Attachment H of this Appendix.

g. Defendant shall provide a Guarantee that requires the Guarantor to send notice to Defendant and EPA within five (5) Days of determining that: (1) the Guarantor is unable to provide a Representation and Certification; (2) the Guarantor becomes aware of changes in the Guarantor's financial condition that would invalidate or otherwise be inconsistent with the terms of the existing Representation and Certification; (3) the Guarantor becomes aware of changes in

the Guarantor's Total Cost Estimate that would invalidate or otherwise be inconsistent with the terms of the Representation and Certification; or (4) the Guarantor is unable to meet the conditions of the Guarantee. Defendant and the Guarantor agree that: (i) such notice shall be admissible in evidence in any litigation between the Parties and create a presumption that the Guarantor cannot provide the required Representation and Certification, and that the Guarantor cannot perform Phosphogypsum Stack System Closure and/or Long Term Care at the Operating and Closing Facilities or establish alternate Financial Assurance in accordance with Section III.A (Type A Financial Assurance) in an amount that is at least equal to the Financial Assurance Delta and (ii) Defendant and the Guarantor may rebut this presumption only by clear and convincing evidence. Such Guarantee shall also include that any notice by the Guarantor of its inability to provide the Representation and Certification, or notice of Guarantor's inability to comply with the requirements of the Guarantee, incorporates a statement by the Guarantor of the value of the guaranteed obligations that the Guarantor lacks the financial resources to cover. In the event that the Guarantor provides such notice, Guarantor shall make available financial resources to the Defendant so that the Defendant can meet its Financial Assurance obligation under the Consent Decree.

h. Defendant shall provide a Guarantee, in lieu of 40 C.F.R. §§ 264.143(f)(3)&(5) and 264.145(f)(3)&(5) except as herein modified, that includes information required in Paragraph 32.h.(1)-(8), below. The information required in Paragraph 32.h.(1)-(8) shall be submitted to EPA, in accordance with the schedule and deadlines in Paragraph 29.d.,of each year the Guarantor is providing a Guarantee. Defendant Guarantor's failure to timely submit the information required below shall not excuse Defendant from providing Financial Assurance.

(1) The value of the Guarantor's: (a) assets located in the United States; (b) Tangible Assets located in the United States; and (c) the Liquidity Buffer. This information shall be captured in the Guarantor's CFO Letter as required under Paragraph 32.h.(4), below.

(2) If more than sixty percent (60%) of the Guarantor's tangible assets are in the form of one or more note receivables from one or more Related Parties, an originally signed certification from the Guarantor's CFO together with a list of each receivable, the name of the Related Party, and a description (along with any necessary documentation) of the Related Parties financial strength to demonstrate that each Related Party maintains the financial strength to meet its obligation to the Guarantor. Such information shall accompany the Guarantor's CFO Letter required in Paragraph 32.h.(4), below.

(3) A list of the "Environmental Obligations" and associated cost estimates for the obligations covered by a financial test or guarantee of the Guarantor. The information shall be captured in the Guarantor's CFO Letter as required under Paragraph 32.h.(4), below.

(4) A letter signed by Guarantor's CFO worded exactly as specified in Form 4-C, Attachment D of this Appendix (CFO Letter).

(5) A copy of the independent CPA report on examination of the Guarantor's audited financial statements for the latest completed fiscal year that Guarantor is providing the Corporate Guarantee.

(6) A copy of Guarantor's audited financial statements for the last completed year.

(7) A Representation and Certification signed by the Guarantor's CFO worded exactly as specified by Attachment H of this Appendix. Such Representation and Certification shall accompany the Guarantor's CFO Letter required in Paragraph 32.h.(4), above.

(8) A report of procedures and findings from the Guarantor's independent CPA, resulting from an agreed-upon procedures engagement performed in accordance with the AICPA

Statement on Standards for Attestation Engagements, AT Section 201 - Agreed Upon Procedures Engagements (including AICPA related attestations interpretations), as updated, that describes the procedures performed and related findings, including whether or not differences or discrepancies were found in the comparison of specified financial information set out in the letter (including attachments and exhibits to the extent specified in the letter) from the Guarantor's CFO and the Guarantor's Independently Audited, year-end financial statements for the last fiscal year, including all attachments. Where differences or discrepancies exist between Guarantor's CFO Letter and the Guarantor's Independently Audited year-end financial statements, the report of procedures and findings shall reconcile any differences or discrepancies between the values or information represented in the Guarantor's CFO Letter and the Guarantor's Independently Audited financial statements. The independent CPA's report on agreed-upon procedures shall also confirm the firm's values represented in Section I, Paragraphs 11 and 12, and in Sections II, line items 3 and 5 of the Guarantor's CFO Letter are calculated correctly pursuant to the requirements under Section I, Paragraphs 11 and 12, and Section II, of the Guarantor's CFO Letter and are in accordance with GAAP. Procedures to be performed by the independent CPA shall be in accordance with AT Section 201.

i. Defendant shall provide a Guarantee that requires that the Guarantor provide notice that it is a debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy) U.S. Code.

j. Defendant shall send notice to EPA within five (5) Days of the Defendant's determination that the Guarantor is unable to meet its obligations under Recital 2 of the Guarantee. Defendant shall, in the event Defendant's Guarantor is unable to meet its obligations under Recital 2 of the Guarantee as determined by the Defendant or as provided in notice by the Guarantor, provide alternate Financial Assurance in accordance with this Appendix (except for Paragraph 10.a(1)(c)), in an amount no less than the Florida Financial Assurance Delta. Defendant shall provide such alternate Financial Assurance within thirty (30) Days of its determination or having received notice from the Guarantor. Defendant shall not seek dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree, and shall not seek judicial review, regarding its determination or the Guarantor's notice that the Guarantor is unable to meet the obligations of Recital 2 or that the Defendant is required to provide alternate Financial Assurance. In the event that Defendant cannot provide alternate Financial Assurance within thirty (30) Days, Defendant may seek pursuant to Paragraph 27.c., above, a compliance plan and schedule.

k. Defendant shall, in the event EPA notifies Defendant that the Guarantor no longer meets its obligations under Recital 2 of the Guarantee or pursuant to 40 C.F.R. §§ 264.143(f)(8) and 264.145(f)(8) is disallowed from continuing as a Guarantor because an independent CPA has issued in the report on examination of the Guarantor's audited financial statements an adverse opinion or a disclaimer of opinion, provide alternate Financial Assurance in an amount no less than the Florida Financial Assurance Delta. Defendant shall provide alternate Financial Assurance within thirty (30) Days of EPA's notice. In the event that Defendant cannot provide alternate Financial Assurance within thirty (30) Days, Defendant may request, pursuant to Paragraph 27.c., above, a compliance plan and schedule. Dispute resolution and judicial review shall proceed pursuant to Section XI (Dispute Resolution), as modified below:

(1) In the event that Defendant seeks judicial review of an EPA determination that the Guarantor no longer meets its obligations under Recital 2 of the Guarantee:

(a) The standard of review shall be that set forth in Paragraph 70.a. of the Consent

Decree; and

(b) If the United States prevails, the Defendant or Guarantor shall immediately provide alternate Financial Assurance in accordance with EPA's Statement of Position or as directed by the Court in its resolution of the dispute.

(2) In any dispute resolution, including judicial review, of EPA's determination that the Guarantor can no longer continue as the Guarantor based on an adverse opinion or disclaimer of opinion by the Guarantor's independent CPA, the following conditions shall apply in addition to those set forth in Paragraph 32.k.(1)(a) and (b), above:

(a) Defendant shall not contend that the adverse opinion or disclaimer of opinion was invalid or erroneous when issued, and shall have the burden of demonstrating by clear and convincing evidence that the conditions giving rise to the adverse opinion or disclaimer of opinion no longer exist;

(b) The time periods specified in Section XI (Dispute Resolution) of the Consent Decree shall be as follows: (i) Notice of Dispute, under Paragraph 65 of the Consent Decree, shall be submitted within seven (7) Days of receiving an EPA determination that Defendant disputes; (ii) the period of informal negotiations shall not exceed ten (10) Days; (iii) Defendant's written Statement of Position, pursuant to Paragraph 66 of the Consent Decree, shall be submitted within seven (7) Days after the conclusion of the informal negotiation period; and (iv) EPA's Statement of Position, pursuant to Paragraph 67 of the Consent Decree, shall be submitted within twenty (20) Days of receipt of Defendant's Statement of Position;

(c) Defendant's (or Guarantor's) obligation to provide alternate Financial Assurance in accordance with EPA's Statement of Position shall become effective seven (7) Days after the conclusion of the formal dispute resolution period specified in Paragraph 32.k.(2)(b), above, unless Defendant seeks judicial review prior to that date. Defendant shall not seek judicial review after that date;

(d) In the event that Defendant seeks judicial review, Defendant's (or Guarantor's) obligation to provide alternate Financial Assurance in accordance with EPA's Statement of Position shall become effective twenty-one (21) Days after the conclusion of the formal dispute resolution period, unless modified or stayed by the Court prior to that date;

(e) Defendant shall not subsequently seek a stay by the Court; and

(f) If the Court has not acted upon Defendant's petition by the date that Defendant's (or Guarantor's) obligation to provide alternate Financial Assurance becomes effective, Defendant shall immediately dismiss with prejudice its petition for judicial review and Defendant (or Guarantor) shall provide the required alternate Financial Assurance.

l. Defendant shall establish within thirty (30) Days alternate Financial Assurance for the Financial Assurance Delta if any of the following occurs: (1) the Guarantor does not provide a Representation and Certification as required; (2) the Guarantor provides notice that it is unable to provide the Representation and Certification; (3) the Guarantor becomes aware of changes in the Guarantor's financial condition that would invalidate or otherwise be inconsistent with the terms of the Representation and Certification; (4) the Guarantor becomes aware of changes in the Total Cost Estimate that would invalidate or otherwise be inconsistent with the terms of the Representation and Certification; or (5) the Guarantor is unable to meet the conditions of the Guarantee. Such alternate Financial Assurance shall be established in accordance with Section III.A. (Type A Financial Assurance), except for Paragraph 10.a(1)(c). In the event that Defendant

cannot provide alternate Financial Assurance within thirty (30) Days, Defendant may seek pursuant to Paragraph 27.c., above, a compliance plan and schedule.

m. Defendant shall, in the event that EPA determines and notifies the Defendant that the Guarantor is unable to provide a valid or adequate Representation and Certification as required by the Guarantee, provide alternate Financial Assurance in an amount no less than the Florida Financial Assurance Delta. Defendant shall provide alternate Financial Assurance within thirty (30) Days of EPA's determination and notice. In the event that Defendant cannot provide alternate Financial Assurance within thirty (30) Days, Defendant may seek pursuant to Paragraph 27.c., above, a compliance plan and schedule. In the event that Defendant seeks judicial review of EPA's determination under this Paragraph 32.m., and the United States prevails, the Defendant or Guarantor shall provide alternate Financial Assurance as directed by the Court in the resolution of the dispute.

n. Defendant shall, if the Guarantor cancels the Guarantee (Attachment I), provide alternate Financial Assurance in accordance with Section III.A (Type A Financial Assurance) of Appendix 2, except that such alternate Financial Assurance for the Guarantee shall not (unless EPA, in its sole unreviewable discretion, approves) be provided pursuant to Paragraph 10.a.(1)(c).

o. Defendant shall provide a Guarantee, in accordance with 40 C.F.R. §§ 264.143(f)(10)(ii)-(iii) and 264.145(f)(11)(ii)-(iii), and modified as follows: (1) alternate Financial Assurance under the terms of the Guarantee shall be in accordance with Section III.A (Type A Financial Assurance) of Appendix 2; and (2) such alternate Financial Assurance for the cancelled Guarantee shall not be provided pursuant to Paragraph 10.a.(1)(c). In addition, Defendant shall provide a Guarantee which states that the Guarantor shall not assign, transfer, delegate, or convey the obligations or terms of this Guarantee to its successor, another person or entity, or a corporate affiliate, unless after notice to EPA, EPA, in its unreviewable discretion, approves the change in Guarantor.

p. Defendant shall provide the Guarantor a copy of the Consent Decree, including all Appendices.

q. Defendant shall when required to provide information to any governmental entity regarding obligations under federal and state law that are assured through the use of a financial test or a guarantee, include the Financial Assurance coverage provided for by the Guarantee required pursuant to this Section VIII.A (Compliance Schedule: Type A Financial Assurance) of the Appendix. In addition, Defendant's Guarantee shall require that the Guarantor, when required to provide information to any governmental entity regarding obligations under federal and state law that are assured through the use of a financial test or guarantee, to include the Financial Assurance coverage provided for by the Guarantee required pursuant to this Section VIII.A of this Appendix.

B. Type B Financial Assurance

33. In the event that a Defendant providing Financial Assurance pursuant to Section III.B (Type B Financial Assurance) notifies EPA pursuant to Paragraph 15.e.(4), above, that Defendant (or Defendant's Guarantor) no longer satisfies the corporate financial test criteria due to information that has come to its attention pursuant to Paragraph 15.e.(6)(c), above, Defendant within ten (10) Days of such notice shall provide additional or alternate Financial Assurance as set forth below:

a. If Defendant fails to satisfy the corporate financial test criteria and requirements of Paragraph 15.e., above, for each quarter in a given fiscal year (not including the fourth quarter (i.e., fiscal year-end)), except as provided in Paragraph 33.b., below, Defendant shall increase the face value or the corpus of the Third-Party Mechanism by twenty-five percent (25%). If Defendant can satisfy the corporate financial test criteria by the fiscal year-end (i.e., in its annual submission pursuant to Paragraph 15.e.(3), above) and Defendant's quarterly review under Paragraph 15.e.(6)(b) for the following fiscal year does not result in notification from Defendant that it does not satisfy the corporate financial test, Defendant can request and EPA will authorize the release of funds or a reduction in the value of the Third-Party Mechanism commensurate with the contemporaneous Cost Estimate and requirements of Paragraph 15.e. of this Appendix.

b. If Defendant fails to satisfy the corporate financial test criteria and requirements of Paragraph 15.e., above, for any two (2) consecutive quarters in a given fiscal year (not including the fourth quarter (i.e., fiscal year-end)), Defendant shall provide alternate Financial Assurance in accordance with Paragraph 18 of this Appendix. If Defendant can satisfy the corporate financial test criteria by the fiscal year-end (i.e., in its annual submission pursuant to Paragraph 15.e.(3)) and its annual submissions pursuant to Paragraph 15.e.(3), above, for the following two (2) fiscal years do not trigger Paragraphs 15.e.(4) or 15.e.(5), above, EPA upon Defendant's request will authorize a release of the funds or a reduction in the value of the Third-Party Mechanism(s) so that the value of the Third-Party Mechanism is commensurate with the minimum threshold funding for a Third-Party Mechanism as specified in Attachment E plus an additional twenty-five percent (25%) of the Cost Estimate.

c. Defendant shall be deemed to be without Financial Assurance for purposes of enforcement (but not for accessing or collecting Financial Assurance should it be necessary) if Defendant fails to meet a compliance schedule. Failure to timely comply with a compliance schedule or to provide alternate Financial Assurance pursuant to this Section VIII.B (Compliance Schedule: Type B Financial Assurance) is not subject to the provisions of Section VII (Temporary Non-Compliance) of this Appendix.

IX. Business Transactions

34. No transfer of ownership or operation of a Facility shall relieve Defendant of its Financial Assurance obligations under this Consent Decree, except as provided by this Section X (Force Majeure) and Section II (Applicability) of the Consent Decree.

35. At least thirty (30) Days prior to any transfer, Defendant shall submit to EPA information explaining the proposed transfer in detail and stating whether Defendant requests the transfer of its Financial Assurance responsibilities to the Transferee pursuant to Section II (Applicability) of the Consent Decree and Paragraph 36.b, below.

36. In the event of a transfer of a Facility's ownership or operation:

a. If Defendant is to retain its Financial Assurance obligations upon the transfer of the Facility, Defendant, based on a Cost Estimate in Current Dollars, shall establish and fund a trust fund, or obtain a surety bond or letter of credit in accordance with this Appendix. Any existing trust fund established pursuant to Paragraph 10.a.(1)(c) shall remain in place. Defendant shall provide EPA the appropriate documentation evidencing the trust fund, surety bond, or letter of credit by the date of the Facility transfer. If using a trust fund, the portion of funds vested in

the trust fund that are not required to meet annual withdrawals shall be invested in U.S. Treasury Bills, or market-based notes and bills that achieve an investment goal or preservation of principle and guarantee an inflation-adjusted rate of return no less than the 30-Year Treasury Constant Maturity Rate average for the previous twelve (12) months from the date of the annual Cost Estimate. If Defendant wishes to propose alternate Financial Mechanism(s) in lieu of the trust fund, surety bond, or letter of credit, Defendant at least thirty (30) Days prior to the transfer shall submit an originally signed CFO Certification from the Defendant's CFO, together with supporting documentation, explaining the compelling reasons why the proposed alternate Financial Mechanism is being requested and is an equivalent substitute for the trust fund, surety bond, or letter of credit. Upon EPA's approval, which shall be subject to dispute resolution pursuant to Section XI (Dispute Resolution) of the Consent Decree but shall not be subject to judicial review, Defendant shall establish the approved Financial Assurance. If by the date of the transfer, EPA does not approve such a request or the Defendant has not put in place the approved Financial Assurance, then Defendant shall fully fund the trust fund or obtain a surety bond or letter of credit, as described above.

b. If Transferee agrees to assume Defendant's Financial Assurance obligations, Defendant shall submit to EPA for approval an originally signed certification by Transferee's CFO, together with supporting documentation, explaining in detail its ability to provide Financial Assurance pursuant to the requirements of this Appendix (except for Paragraph 10.a.(1)(c)) and agreeing to provide the Financial Assurance if approved by EPA pursuant to Section II (Applicability) of the Consent Decree. Defendant shall comply with the requirements of Paragraph 36.a., above, until: (1) EPA has approved Transferee's proposed Financial Assurance; (2) the United States, after consultation with Florida, consents to the transfer of obligations pursuant to Section II (Applicability) of the Consent Decree; (3) Transferee has established the approved Financial Assurance; and (4) EPA has given its consent for Defendant to terminate its Financial Assurance. If Defendant is providing Financial Assurance pursuant to Paragraph 10.a.(1)(c) of this Appendix, and if the Transferee is acquiring <u>all</u> of the Defendant's Operating and Closing Facilities in Florida, then the Florida Phosphogypsum Trust Fund (<u>see</u> Paragraph 30.b), and if still in existence, the required Guarantee (<u>see</u> Paragraph 32.c) and the required letter of credit, will be the Financial Assurance subject to Paragraph 36.b.(4) that may be terminated.

37. If Defendant is providing Financial Assurance through the use of any Financial Mechanism other than the exclusive use of a fully funded trust fund in Current Dollars, in the event of a business transaction that results, or Defendant determines will result, in an adverse material change to Defendant's financial or corporate structure such that Defendant or its successor (or a Guarantor of Defendant or its successor) has insufficient operating cash flow or Tangible Assets to cover the long-term (greater than one (1) year) financial liabilities as represented on the Defendant's or successor's audited balance sheet and to comply with the Financial Assurance requirements of this Consent Decree, Defendant shall provide notice to EPA within fourteen (14) Days of identifying such adverse material change and comply with the requirements for Financial Assurance in Paragraph 36.a., above.

38. If Defendant becomes a private company, Defendant shall provide, in addition to the CFO Letter in Attachment D (Forms 4), a full accounting of its financial condition and a certification from the CFO that the Defendant expects to have sufficient operating cash flow or Tangible Assets located in the United States to cover long-term (greater than one (1) year) financial

liabilities as represented in the audited financial statements and to comply with the Financial Assurance requirements of this Consent Decree Defendant shall make such a certification as long as Defendant provides a Self-Assurance Mechanism a part of its Financial Assurance.

X. Reservation of Rights

39. If EPA determines at any time that the Financial Assurance provided by Defendant no longer satisfies the requirements of this Consent Decree, it shall notify Defendant. EPA may base this determination on Defendant's failure to provide notices or documentation required by this Appendix as well as on a substantive evaluation of Defendant's Financial Assurance. Within thirty (30) Days of written notice from EPA that Defendant's Financial Assurance no longer satisfies the requirements of this Consent Decree, Defendant shall submit to EPA for approval revised or alternate Financial Assurance that satisfies the requirements of this Consent Decree. Defendant shall not cancel the existing Financial Assurance until the revised or alternate Financial Assurance has been approved by EPA and EPA has provided written consent permitting Defendant to cancel the existing Financial Assurance. Failure to timely provide alternative Financial Assurance as required by this Section (or any Paragraph of this Appendix that references this Section) is not subject to the provisions of Section VII of this Appendix. EPA's determination shall be subject to dispute resolution pursuant to Section XI (Dispute Resolution) of this Consent Decree, but not judicial review, and the time frames for notices and submissions under the dispute resolution process shall be reduced by half (e.g., under Informal Dispute Resolution Defendant shall submit its Notice of Dispute within fifteen (15) Days). In the event that Defendant is providing Financial Assurance pursuant to Paragraph 10.a.(1)(c), and there is a conflict between this Paragraph 39 and Paragraph 32, then the provisions of Paragraph 32 shall control, except that the time frames for notices and submissions under Section XI (Dispute Resolution) of this Consent Decree shall be reduced by half unless otherwise specified in Paragraph 32 of this Appendix.

Attachment A

The following is the form of the Chief Financial Officer's ("CFO") certification that shall be used when required under Appendix 2 of the Consent Decree.

Chief Financial Officer Certification

I hereby certify as the Chief Financial Officer [*or insert, as appropriate, "a duly designated corporate officer"*] of Mosaic Fertilizer, LLC, under penalty of law, in accordance with the requirements of [*insert the specific Section/Paragraph of Appendix 2*] of the Consent Decree entered by the [*insert the District Court designation and case information*] that [*insert the substance of the certification being made and any additional information that is relevant for the certification*]. Based on my inquiry of persons directly responsible for gathering the information for this certification (and any attached documentation), the information submitted is, to the best of my knowledge and belief, true accurate and complete. I am aware that there are significant penalties for submitting false information, including possible fine and imprisonment for knowing violations.

[If required under Appendix 2 as part of the CFO Certification.] I have attached as supporting documentation: [*insert a description of/information on the supporting documentation*.]

Date: _____

Name: _____

Title: _____

Company: _____

Address: _____

Telephone Number: _____

E-mail: _____

Attachment B

Attachment B

PHOSPHOGYPSUM STACK SYSTEM
CLOSURE AND LONG TERM CARE COST ESTIMATE

Date: _____ Date of Review: _____

Reviewer Signature: _____

INSTRUCTIONS:

1. The Phosphogypsum Stack System Closure and Long Term Care Cost Estimate is to be adjusted annually. Such adjustments may be made by either: (i) use of an inflationary factor (an "Inflation Adjustment"), or (ii) by recalculating the costs in Current Dollars reflecting cost adjustments (e.g., revised treatment protocols, treatment costs, additional studies, material and labor cost) (a "Recalculated Adjustment"). See Paragraph 4.a., Appendix 2, Consent Decree. This form shall be used to provide the information regarding the adjustments to the Cost Estimate and submitted annually as directed in Section II (Cost Estimate) of Appendix 2, of the Consent Decree, unless otherwise specified in Appendix 2 or the Consent Decree.

2. The annual update to the Cost Estimate shall be a Recalculated Adjustment performed pursuant to Paragraph 4.c. Appendix 2 in 2017 and every five years thereafter. In other years, the update may be either an Inflation Adjustment or a Recalculated Adjustment performed pursuant to Paragraph 4.a. of Appendix 2.

3. This form shall also be used when required to provide an Updated Cost Estimate as set out in Appendix 2. For example, this form shall be used for an Updated Cost Estimate that is to be provided at least sixty (60) days prior to constructing a lateral expansion at an Operating Facility (see Paragraph 4.c.(2)(i) of Appendix 2).

4. Fill in all sections, below, as appropriate. If using the inflationary factor, fill in Section II.A, below. If recalculating the costs in Current Dollars, fill in Section II.B, below.

5. This form is to be sent to the appropriate individual(s) identified in Section XV (Notices) of the Consent Decree.

6. All Cost Estimates entered on this form may be rounded to the nearest hundred thousand dollars.

I. GENERAL INFORMATION

Facility Name: _____ EPA ID #: _____

Facility Address: _____

Owner/Operator: _____

Mailing Address: _____

_____

II. COST ESTIMATE ADJUSTMENT

Please check below the appropriate boxes identifying the type of Cost Estimate adjustment under this Section. In addition, Defendant shall complete Attachments B-1 and, if needed, Attachments B-2 and B-3, unless providing Financial Assurance pursuant to Paragraph 10.a.(1)(c) of Appendix 2, in which case Defendant need not provide Attachments B-2 and B-3 and need only provide Attachment B-1 when providing the Updated Cost Estimate pursuant

to Paragraph 4.c.(2). Requirements under the Consent Decree for Cost Estimate are found in Appendix 2, Section II, of the Consent Decree.

☐ **A. Inflation Adjustment to Cost Estimate**

The Cost Estimate may be adjusted for inflation by using an inflation factor. Please follow the instructions below in each subsection to derive the inflation factor that must be used when adjusting the Cost Estimate for inflation. If providing Financial Assurance pursuant to Appendix 2, Subsection III.A, of the Consent Decree, complete subsections A(1)-(2), below. If providing Financial Assurance pursuant to Appendix 2, Subsection III.B of the Consent Decree, complete subsections A(1) & (3), below. Use of an inflation factor may only occur when there is a Phosphogypsum Stack System Closure and Long Term Care Cost Estimate and a periodic re-evaluation of the Cost Estimate is not required under Section II of Appendix 2 (e.g., Paragraph 4.c.).

Inflation Factor

When adjusting for inflation to update the current dollar Cost Estimate in subsection A(1) and A(2), below, the inflation factor must be derived from the most recent Implicit Price Deflator for Gross National Product ("Deflator") published by the U.S. Department of Commerce in its Survey of Current Business**.** The inflation factor is the result of dividing the latest published annual Deflator by the Deflator in effect at the time of the latest current dollar Cost Estimate. Attachment B, Exhibit 1 provides information (and examples) to use when deriving the imputed deflators for the annual inflationary adjustments under Appendix 2. See also Appendix 2, Paragraphs 4.a.(1) and 4.a.(2), of the Consent Decree. (For additional information and guidance see 40 C.F.R. §§ 264.142(b)(1)&(2) and 264.144(b)(1)&(2).)

[x] Latest Published or Imputed Quarterly Deflator
(see Attachment B, Exhibit 1 (insert value from Cell 4E): _____
[y] Quarterly Deflator in effect at the time of the latest current dollar Cost Estimate *([identify the Deflator date]):* _____
[x] ÷ [y] Inflation Factor: _____

☐ (1) Adjusted Phosphogypsum Stack System Closure Cost Estimate – Current Dollars

The adjustment under this subsection is based on the latest Recalculated Adjustment for the Phosphogypsum Stack System Closure Cost Estimate dated _____. Phosphogypsum Stack System Closure and associated Water Management costs represented in this subsection are in Current Dollars. To update the Phosphogypsum Stack System Closure Cost Estimate for inflation take the latest Phosphogypsum Stack System Closure and the associated Water Management costs, multiplying each cost by the most recent inflation factor, then add together the two resulting costs. Complete the steps as instructed, placing the information in the line items designated below. See Appendix 2, Paragraphs 4.a.(1) and 4.a.(2), of the Consent Decree. (For additional information and guidance see 40 C.F.R. §§ 264.142(b)(1)&(2).)

Phosphogypsum Stack System Closure cost (latest): _____
Associated Water Management cost (latest): _____

Phosphogypsum Stack System Closure cost (latest current dollar cost estimate)		Inflation Factor		Inflation Adjusted Phosphogypsum Stack System Closure cost
_____	X	_____	=	_____

Associated Water Management cost (latest current dollar cost estimate)		Inflation Factor		Inflation Adjusted Associated Water Management cost
_____	X	_____	=	_____

Inflation Adjusted Phosphogypsum Stack System Closure cost		Inflation Adjusted Associated Water Management cost		**Phosphogypsum Stack System Closure Cost Estimate**
_____	+	_____	=	_____

☐ (2) Adjusted Long Term Care Cost Estimate – Current Dollars

The adjustment under this subsection is based on the latest Recalculated Adjustment for the Long Term Care Cost Estimate dated _____, for all years of Long Term Care remaining. Long Term Care and associated Water Management costs represented in this subsection are in Current Dollars. To update the Long Term Care Cost Estimate for inflation take the latest Long Term Care and the associated Water Management costs, multiplying each cost by the most recent inflation factor, then add together the two resulting costs. Complete the steps as instructed, placing the information in the line items designated below. See Appendix 2, Paragraphs 4.a(1) and 4.a(2), of the Consent Decree. (For additional information and guidance see 40 C.F.R. §§ 264.144(b)(1)&(2).)

Long Term Care cost (latest): _____
Associated Water Management cost (latest): _____

Long Term Care cost (latest current dollar cost estimate)		Inflation Factor		Inflation Adjusted Long Term Care cost
_____	X	_____	=	_____

Associated Water Management cost (latest current dollar cost estimate)		Inflation Factor		Inflation Adjusted Associated Water Management cost
_____	X	_____	=	_____

Inflation Adjusted Long Term Care cost		Inflation Adjusted Associated Water Management cost		**Long Term Care Cost Estimate (Current Dollars)**
_____	+	_____	=	_____

☐ (3) Adjusted Long Term Care Cost Estimate – Net Present Value

The adjustment is based on the latest Long Term Care Cost Estimate dated _____, for all years of Long Term care remaining. Long Term Care and associated Water Management costs represented in this subsection are in NPV. To update the Long Term Care Cost Estimate for inflation, complete the following steps as instructed and place the information in the line items designated below:

(i) To determine the Long Term Care and associated Water Management Costs in Current Dollars, calculate the costs as instructed in subsection A(2), above, filling in the necessary information.
(ii) To inflate forward the current Long Term Care and associated Water Management costs for all remaining years of Long Term Care, adjust the costs as instructed in Attachment B-2, adjusting each year's costs by the inflation factor specified in Attachment B-2. (For additional reference information, see Paragraph 4.d., Appendix 2, of the Consent Decree.)
(iii) Using each year's adjusted costs due to inflation, place the information from Attachment B-2 in the corresponding line items located in Attachment B-3.
(iv) Following the instructions for Attachment B-3 to determine the present value of Long Term Care and associated Water Management costs for each year. To derive the net present value dollars for inflation adjusted Long Term Care, add each year's present value for Long Term Care costs; to

derive the net present value dollars for the inflation adjusted associated Water Management, add each year's present value for the associated Water Management costs.

(v) Insert, below, the inflation adjusted Long Term Care and associated Water Management costs in net present value; these totals must be taken from Attachment B-3. To obtain the Long Term Care Cost Estimate (NPV), add together the inflation adjusted Long Term Care and associated Water Management costs in net present value.

Inflation Adjusted Long Term Care costs (NPV)
(total of Column [C] of Attachment B-3): _____
Inflation Adjusted Associated Water Management costs (NPV)
(total of Column [E] of Attachment B-3): _____

Long Term Care Costs Estimate (NPV): _____

Cost Estimate Using Inflation Factor

To determine the totals costs to be covered by Financial Assurance, add together the Phosphogypsum Stack System Closure Cost Estimate and the appropriate Long Term Care Cost Estimate (subsection A(2) or A(3) of this Attachment). The sum of the two Cost Estimates will provide the Total Cost Estimate.

Phosphogypsum Stack System Cost Estimate: _____
Long Term Care Cost Estimate
([*identify the subsection*]): _____

Total Cost Estimate Financial Assurance Under [*identify Subsection of Appendix 2*]: _____

☐ **B. Recalculated Adjustment to Cost Estimate**

If performing a Recalculated Adjustment, and providing Financial Assurance pursuant to Section III.A, Appendix 2, of the Consent Decree, submit the certification from the independent qualified professional engineer (box 1). If recalculating the costs, which are in Current Dollars, and providing Financial Assurance pursuant to Section III.B, Appendix 2, of the Consent Decree, submit the certification from the independent qualified professional engineer (box 1) and the certification from [insert Defendant's name] (box 2), with the calculations underpinning Long Term Care and associated Water Management costs in present value.

☐ (1) Certification by Third-party Engineer

This is to certify that the estimate of Phosphogypsum Stack System Closure and Long Term Care costs specified below and in Attachment B-1, pertaining to the engineering features of this Phosphogypsum Stack System, have been examined by me and found to conform to engineering principles applicable to such systems. In my professional judgment, the Cost Estimate is a true, correct and complete representation of the estimated financial liabilities for Phosphogypsum Stack System Closure and Long Term Care of the facility as of *[date]*, performed in accordance with the methodology set forth in Section II, Appendix 2, of the Consent Decree

(a) Phosphogypsum Stack System Closure Cost Estimate: _____
   1. Phosphogypsum Stack System Closure costs ($ [*insert current costs*])
   2. Associated Water Management costs ($ [*insert current costs*])
(b) Long Term Care Cost Estimate: _____
   1. Long Term Care costs ($ [*insert current costs*])
   2. Associated Water Management costs ($ [*insert current costs*])
(c) **Total Cost Estimate:** _____
   (Add lines (a) and (b), above.)

_____ _____
Signature of Engineer Florida Registration Number (affix seal)

_____

Name & Title (please type)

_____

_____
Mailing Address

_____
Telephone Number

_____
Engineer E-Mail Address

☐ (2) **Certification by [*insert Defendant's name*]**

The present value for the Long Term Care and associated Water Management costs, as represented below and in Attachments B-2 and B-3, has been calculated by [*insert Defendant's name*] is in accordance with the requirements of the Consent Decree and is represented in the Chief Financial Officer's letter (Attachment C, Appendix 2, of the Consent Decree), as calculated in this Attachment. It is understood that Attachment B-2 (Adjusting Long Term Care and Associated Water Management Costs to Calculate Current (Then-Year) Dollars) and Attachment B-3 (Present Value of Long Term Care and Associated Water Management), shall be submitted to the EPA [and State], whenever [*insert Defendant's name*] is required to, or determines to, recalculate the Cost Estimate. [Note: The independent Certified Public Accountant ("CPA") has, as part of the CPA's report under Paragraph 15.e.(3)(d), Appendix 2, reviewed calculations in Attachment B-2 and B-3.]

The costs to be used in Attachments B-2 and B-3 have been based on the Long Term Care and associated Water Management costs certified by the independent qualified professional engineer, above, in subsection B(1).

[*Instructions: To fill in the information below, obtain the Long Term Care Cost Estimate by adding together, from Attachment B-3, the total present value dollars for Long Term Care costs (column [C] of Attachment B-3) and to total present value dollars for associated Water Management costs (column [E] of Attachment B-3). Insert the Long Term Care and associated Water Management costs as parenthetical information.]*

(a) Long Term Care Cost Estimate (NPV): _____
   1. Long Term Care costs ([*insert total from column [C] of Attachment B-3*])
   2. Associated Water Management costs ([*insert total from column [E] of Attachment B-3]*)

(b) **Total Cost Estimate**: _____
(Add line B(1)(a), Phosphogypsum Stack System Closure Cost Estimate and line B(2)(a), Long Term Care Cost Estimate (NPV).)

_____
Signature of [*insert Defendant's name*] Representative

_____
Name & Title (please type)

_____
Telephone Number

_____

_____
Mailing Address

_____
E-Mail Address

Attachment B, Exhibit 1

Attachment B, Exhibit 1: For use in deriving imputed deflators for annual inflationary adjustments submitted within 60 days following each calendar year-end.

	(A)	(B)	(C)	(D)	(E)
	Quarter	**Published Deflator**	**Change**	**Average Change**	**Imputed Deflator**
1	Q1				
2	Q2				
3	Q3 *(imputed, if actual not yet published)*				
4	Q4 *(imputed, if actual not yet published)*				

Instructions: See also Examples 1 and 2, below.

1. The fiscal quarters for the prior year are listed in Column (A). The *first* entry in this column is Q1 of the prior year, and the *last* entry in this column is Q4 of the prior year.

2. Add the *published* quarterly deflators into Column (B). Do not add any deflators to this column, if they have not yet been published.

3. For each published deflator in Column (B), add the change from the previous quarter in column (C). For example, to calculate the change for Q2, subtract the published deflator value for Q1 from the published deflator value in Q2. Column (C) should include entries only for quarters for which a published deflator is available.

4. The value for Column (D) is calculated as the average of all entries in Column (C). Enter this value once, in the row with the latest published quarterly deflator.

5. Add the value in Column (D) to the latest published quarterly deflator to calculate the following imputed quarterly deflator in Column (E). (The entries in this column will correspond to the quarters for which there are no published quarterly deflators.) To impute quarterly deflators for more than one quarter, continue adding the value in Column (D) to each imputed quarterly deflator to calculate the quarterly deflator for the next year.

Example 1: Imputing a Deflator when Q1 through Q3 Deflators are published, but Q4 Deflator is not

	(A)	(B)	(C)	(D)	(E)
	Quarter	**Published Deflator**	**Change**	**Average Change**	**Imputed Deflator**
1	Q1 2013	106.324			
2	Q2 2013	106.608	0.284		
3	Q3 2013	107.044	0.436	0.360	
4	Q4 2013				107.404

This example assumes that the latest published quarterly deflator is Q3 2013. The imputed quarterly deflator for Q4 2013 is found in Cell 4E, **107.764**.

Example 2: Imputing a Deflator when Q1 through Q2 Deflators are published, but Q3 and Q4 Deflators are not

	(A)	(B)	(C)	(D)	(E)
	Quarter	**Published Deflator**	**Change**	**Average Change**	**Imputed Deflator**
1	Q1 2013	106.324			
2	Q2 2013	106.608	0.284	0.284	
3	Q3 2013				106.892
4	Q4 2013				107.176

This example assumes that the latest published quarterly deflator is Q2 2013. Because there are only two quarters with published deflators in Column (B), the values in Column (C) and Column (D) are the same. The value in Cell D2 is added to Cell B2 to derive the imputed deflator for Q3 2013 (see Cell E3). To derive the imputed deflator for Q4 2013, the value in Cell D2, is added to imputed deflator for Q3 2013 (Cell E3) to derive the imputed deflator for Q4 2013 (Cell E4).

Attachment B-1

Attachment B-1: Instructions

Attachment B-1 (and associated Forms 1-3) provides a framework that summarizes the types of activity, quantity (or volume), and costs associated Phosphogypsum Stack System Closure (Form 1), Long Term Care (Form 2) and the associated Water Management activities (Form 3). The information to be captured in the Exhibits and submitted in accordance with Section II (Cost Estimate), Appendix 2 of the Consent Decree, is Facility specific and, therefore, as appropriate, the line item information in the Exhibits shall be adjusted accordingly, as well as any other information or assumptions provided in (or accompanying) the Exhibits.

In general, the costs for the associated Water Management activities are broken out based on which activities are associated with Phosphogypsum Stack System Closure and which activities are associated with Long Term Care. In additions to listing out the activity, and costs, any assumptions, comments descriptions or relevant information (e.g., adjusted for inflation) needed to explain the costs shall be included. For example, specifying the estimated hours per week for an activity; yearly salary for an on-site engineer tasked with Long Term Care activities; assumptions for mowing the grassed stacks; assumptions for the identified contingency; and what costs are captured by administrative costs.

Attachment B-1 **Form 1**

A. GYPSUM STACK AT CLOSURE

Activity	Quantity	Unit	Unit Cost	Total Cost
1. Top Grading and Cover				
1a. General Excavation and Fill		yd^3		$0
1b. Dewatering, Fine Grading & Compaction		acres		$0
1c. 40-mil HDPE Liner Materials		acres		$0
1d. 40-mil HDPE Liner Installation		acres		$0
1e. 24" Thick Soil Cover		yd^3		$0
1f. Grassing by Seeding		acres		$0
1g. Subtotal		**acres**		**$0**
2. Side Slope Grading and Cover				
2a. General Excavation and Fill		yd^3		$0
2b. Fine Grading & Compaction		acres		$0
2c. Dolomite Addition		acres		$0
2d. Grassing by Seeding Incl.Maint. & Watering		acres		$0
2e. Subtotal		**acres**		**$0**
3. Side Slope Drains		**lineal ft**		**$0**
4. Toe Drain		**lineal ft**		**$0**
5. Side Slope Drainage Swale				
5a. Grading & Compaction		acres		$0
5b. 40-mil HDPE Textured Liner Materials		acres		$0
5c. 40-mil HDPE Textured Liner Installation		acres		$0
5d. 24" Thick Soil Cover		yd^3		$0
5e. Grassing by Seeding & Sodding		acres		$0
5f. Subtotal		**acres**		**$0**
6. Toe Drainage Swale				
6a. Grading & Compaction		acres		$0
6b. 40-mil HDPE Textured Liner Materials		acres		$0
6c. 40-mil HDPE Textured Liner Installation		acres		$0
6d. 24" Thick Soil Cover		yd^3		$0
6e. Grassing by Seeding & Sodding		acres		$0
6f. Subtotal		**acres**		**$0**
7. Surface Water Control		**acres**		
8. Security Fence (includes cooling pond)		**lineal ft**		
9. Security Fence Gates and Signage		**lump**		
10. Subtotal		**acres**		**$0**
11. Permitting		**lump**		
12. Design, Construction Management & QA/QC [%]		**lump**		**$0**
13. Construction Surveying [%]		**lump**		**$0**
SUBTOTAL GYPSUM STACK CLOSURE		**acres**		**$0**

B. COOLING CHANNEL CLOSURE COST

1. Sluiced Gypsum Filling	yd^3	**$0**
2. Grading and Cover		
2a. General Excavation and Fill	yd^3	$0
2b. Fine Grading & Compaction	acres	$0
2c. 40-mil HDPE Liner Materials	acres	$0
2d. 40-mil HDPE Liner Installation	acres	$0
2e. 24" Thick Soil Cover	yd^3	$0
2f. Grassing by Seeding	acres	$0
2g. Subtotal	**acres**	**$0**
3. Stack Drain Header Pipe	**lineal ft**	**$0**
4. Sumps and Pump Stations	**each**	**$0**
5. Surface Water Control	**lump**	
6. Subtotal	**acres**	**$0**
7. Design, Construction Management & QA/QC [%]	**lump**	**$0**
8. Construction Surveying [%]	**lump**	**$0**
SUBTOTAL COOLING CHANNEL	**acres**	**$0**

C. COOLING POND CLOSURE COST

1. Sluiced Gypsum Filling	yd^3	**$0**
2. Grading and Cover		
2a. General Excavation and Fill	yd^3	$0
2b. Fine Grading & Compaction	acres	$0
2c. 40-mil HDPE Liner Materials	acres	$0
2d. 40-mil HDPE Liner Installation	acres	$0
2e. 24" Thick Soil Cover	yd^3	$0
2f. Grassing by Seeding	acres	$0
2g. Subtotal	**acres**	**$0**
3. Surface Water Control	**lump**	
4. Subtotal	**acres**	**$0**
5. Design, Construction Management & QA/QC [%]	**lump**	**$0**
6. Construction Surveying [%]	**lump**	**$0**
SUBTOTAL COOLING POND CLOSURE	**acres**	**$0**

D. 5-YEAR CLOSURE PERIOD O&M AND MONITORING

1. Operation & Maintenance	**years**	**$0**
2. Surface Water Monitoring	**acres**	**$0**
3. Groundwater Monitoring	**wells**	**$0**
TOTAL O&M AND MONITORING COSTS	**acres**	**$0**

E. ADMINISTRATIVE COSTS

1. E.g., Construction Management	
2. E.g., Administrative Management	**$0**
3. E.g., Staff Salaries	**$0**
4. E.g., Reports, Permits, Filings	**$0**
	$0
TOTAL ADMINISTRATIVE COSTS	
	$0
CONTINGENCY FOR CLOSURE COSTS (minimum 5%)	
	$0
TOTAL CLOSURE CONSTRUCTION COST	**acres**	**$0**

Notes and Assumptions

1. **List any assumption/comments for activities and costs related to closure.**
   (a) E.g., Side slope drain costs for 12" HDPE pipe running vertically and spaced at 50' intervals
   (b) E.g., Toe drain costs unit pricing installation only; grading/excavation in Swale activities.
   (c) E.g., O&M costs include mowing, etc. Administrative and labor costs related to O&M activities captured in . . .

Attachment B-1 **Form 2**

LONG TERM CARE COST ESTIMATE

Long Term Care Item	Estimated Cost ([*Insert Year*] Dollars)		
	[__ YEARS]	[__ YEARS]	[__ YEARS]
1. Administrative, Etc.			
2. Inspections			
3. Site Security/Fence Maintence			
4. Monitoring Wells Sampling and Testing			
5. Surface Water Sampling and Testing			
6. Mowing			
7. Land Surface Care & Contingency Repairs			
8. Pump Operation and Maintenance			
9. Contingency (5% Items 1 & 2)			
TOTAL ANNUAL COST	**$0**	**$0**	**$0**

NOTES AND ASSUMPTIONS:

1. E.g., Positions, wages, time, materials, overhead, etc

2. Description of inspections/costs. If cost is captured by another element of Estimate, provide information.

3. Description of costs. If a cost is captured by another element of the Cost Estimate, provide information.

4. Description of costs,. If a cost is captured by another element of the Cost Estimate, provide inforrmation.

5 & 6. Description of costs. If a cost is captured by another element of the Cost Estimate, provide information.

7 & 8. Description of costs. If a cost is captured by another element of the Cost Estimate, provide inofrmation.

9. Provide basis for the contingency.

Attachment B-1 **Form 3**

COST FOR PROCESS WATER TREATMENT

Item	Process Water	
	Quantity	
	Acre - Feet	Billion Gal.
1. Ponded Water		0.00
2. Drainable Pore Water		0.00
3. Total Infiltration Above Liner for 50 Years		0.00
4. Total Infiltration Below Liner for 50 Years		0.00
5. Water Balance During Closure		0.00
TOTAL WATER QUALITY	**0**	**0.00**

Expenditure Period	Water Treated Billion Gallons	Treatment Cost (MM$)	Avg. Unit Cost ($/1000 Gal)
Phosphogypsum Stack System Closure (Years*)			
Long Term Care (Years*)			
TOTAL QUANTITY AND TREATMENT COST	**0.00**	**0.00**	-

Attachment B-2

ADJUSTING LONG TERM CARE AND ASSOCIATED WATER MANAGEMENT COSTS TO CALCULATE CURRENT (THEN-YEAR) COSTS

Instructions:

1. Use the information and formulas, below, to determine the current (then-year) dollars for Long Term Care and associated Water Management costs (i.e., columns [C] and [E], below).
2. The Long Term Care and associated Water Management costs in Current Dollars to be used in columns [B] and [D], below, shall be obtained, as appropriate, by calculating the inflation adjusted Long Term Care and associated Water Management costs pursuant to Section II.A(2) of Attachment B or from the information provided in Section II.B(1)(b) of Attachment B.
3. For purposes of determining the inflation factor, the Gross Domestic Product (GDP) Deflator is as specified in the "GDP (Chained) Price Index" of the Gross Domestic Product Deflators Used in the Historic Tables, published by the Office of Management and Budget ("OMB"). The inflation factor used to inflate the costs in this attachment shall be derived from the mathematical average of the calculated inflation factors for each year over a five-year period. Each year's calculated inflation factor shall be the product of dividing the GDP for the relevant year by the GDP for the year immediately prior, beginning with the first year in which the GDP Deflator is an estimate and for each year thereafter until the fifth year. (See Paragraph 4.d, Appendix 2, of the Consent Decree.)
4. The inflated costs, as calculated in this Attachment B-2, shall be used to calculate the present value for Long Term Care and associated Water Management costs in Attachment B-3 and to provide information in Section II.A(3) and Section II.B(2) of Attachment B. [Note: Each year's adjusted costs due to inflation as specified in columns [C] and [E], below, shall be placed in the corresponding line items designated by year in columns [B] and [D] in Attachment B-3.]

r =	Inflation Factor	As specified in Paragraph 4.d, Appendix 2, of the Consent Decree. Note: Item 3, above, provides the criteria from Paragraph 4.d to calculate the inflation factor.
t =	Year	Year in which costs are incurred.
CE date =	Year	Year in which costs are estimated.

Year	Long Term Care Costs		Associated Water Management Costs	
	Current (Today's) Dollars	Inflated Annual Dollars (as of year in which cost incurred)	Current (Today's) Dollars	Inflated Annual Dollars (as of year in which cost incurred)
[A]	[B]	[C] = [B] * (r) ([t] – [CE Date])	[D]	[E] = [D] * (r) ([t] – [CE Date])
2010				
2011				
2012				
2013				
2014				
2015				
2016				
2017				
2018				
2019				
2020				
2021				
2022				
2023				

Year	Long Term Care Costs		Associated Water Management Costs	
	Current (Today's) Dollars	Inflated Annual Dollars (as of year in which cost incurred)	Current (Today's) Dollars	Inflated Annual Dollars (as of year in which cost incurred)
[A]	[B]	[C] = [B] * (r) ([t] – [CE Date])	[D]	[E] = [D] * (r) ([t] – [CE Date])
2024				
2025				
2026				
2027				
2028				
2029				
2030				
2031				
2032				
2033				
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2061				

Year	Long Term Care Costs		Associated Water Management Costs	
	Current (Today's) Dollars	Inflated Annual Dollars (as of year in which cost incurred)	Current (Today's) Dollars	Inflated Annual Dollars (as of year in which cost incurred)
[A]	[B]	[C] = [B] * (r) ([t] – [CE Date])	[D]	[E] = [D] * (r) ([t] – [CE Date])
2062				
2063				
2064				
2065				
2066				
2067				
2068				
2069				
2070				
2071				
2072				
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2089				
2090				
[...]				

Attachment B-3

PRESENT VALUE OF LONG TERM CARE AND ASSOCIATED WATER MANAGEMENT

Instructions:

1. Use the information and formulas, below, to calculate the present value of Long Term Care and associated Water Management costs. [Note: Present value is to be calculated only when providing Financial Assurance under Section III.B, Appendix 2, of the Consent Decree.]
2. In columns [B] and [D], insert the inflation-adjusted annual costs beginning in the year when Long Term Care is expected to begin. These costs have been generated in Attachment B-2, representing inflation adjusted (then-year) dollars in the year that the cost are expected to be incurred. [Note: The values in columns [B] and [D], below, are the same as those represented in columns [C] and [E] from Attachment B-2.]
3. Following the formula listed below, calculate the present value of the Long Term Care and associated Water Management costs in each year.
4. The present value, as calculated in this Attachment B-3, shall be used, as instructed, to fill in Sections II.A(3) and II.B(2) of Attachment B.

r =	Discount Rate	30-Year Treasury Constant Maturity Rate, averaged for the previous twelve (12) months from the date of the annual cost estimate
t =	Year	Year in which costs will be incurred
PV Date =	Year	Year in which present value is calculated

	Long Term Care Costs		**Associated Water Management Costs**	
Year	**Current (Then-Year) Dollars (as of year in which cost incurred) [Note: These values are equivalent to Column [C] from Attachment A-2.]**	**Present Value Dollars (as of PV Date)**	**Current (Then-Year) Dollars (as of year in which cost incurred) [Note: These values are equivalent to Column [E] from Attachment A-2.]**	**Present Value Dollars (as of PV Date)**
[A]	**[B]**	**[C] = [B] / [(1 + r) ([t] – [PV Date])]**	**[D]**	**[E] = [D] / [(1 + r) ([t] – [PV Date])]**
2010				
2011				
2012				
2013				
2014				
2015				
2016				
2017				
2018				
2019				
2020				
2021				
2022				
2023				

	Long Term Care Costs		Associated Water Management Costs	
Year	Current (Then-Year) Dollars (as of year in which cost incurred) [Note: These values are equivalent to Column [C] from Attachment A-2.]	Present Value Dollars (as of PV Date)	Current (Then-Year) Dollars (as of year in which cost incurred) [Note: These values are equivalent to Column [E] from Attachment A-2.]	Present Value Dollars (as of PV Date)
[A]	[B]	[C] = [B] / [(1 + r) ([t] – [PV Date])]	[D]	[E] = [D] / [(1 + r) ([t] – [PV Date])]
2024				
2025				
2026				
2027				
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2029				
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2058				

	Long Term Care Costs		Associated Water Management Costs	
Year	Current (Then-Year) Dollars (as of year in which cost incurred) [Note: These values are equivalent to Column [C] from Attachment A-2.]	Present Value Dollars (as of PV Date)	Current (Then-Year) Dollars (as of year in which cost incurred) [Note: These values are equivalent to Column [E] from Attachment A-2.]	Present Value Dollars (as of PV Date)
[A]	[B]	[C] = [B] / [(1 + r) ([t] – [PV Date])]	[D]	[E] = [D] / [(1 + r) ([t] – [PV Date])]
2059				
2060				
2061				
2062				
2063				
2064				
2065				
2066				
2067				
2068				
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2088				
2089				
2090				
Total				

Attachment C

Attachment C: Instructions

As part of the annual update of the Phosphogypsum Stack System Closure and Long Term Care Cost Estimate, Defendant shall submit Attachment C. The costs represented in Attachment C are in Current Dollars for the year in which the annual submittal is required. When filling out Attachment C, use the information and definition specified below, and provide any assumptions utilized to provide the information. If it is determined that additional columns are required to accurately represent the annual volume of water to be addressed during Phosphogypsum Stack System Closure or Long Term Care, insert such information providing appropriate notes and assumptions for the additional information.

1. Ponded Water Inventory is the annual volume of water to be removed from the cooling pond, the sedimentation ponds on the Phosphogypsum Stack, the return canal and collection ditches, and from other storage or surge ponds, or sumps in excess of ¼ acre, that are part of the Phosphogypsum Stack System (such water is also known as "process water inventory").
2. Water Balance During Closure is the average annual rainfall that is captured in the Phosphogypsum Stack System minus the average annual evaporation from the ponded water surfaces and evapotranspiration from non-ponded surfaces.
3. Drainable Pore Water is the annual volume of water contained within the pores of the phosphogypsum that gravity drains during and after closure of the Phosphogypsum Stack.
4. Infiltration is the annual volume of water that infiltrates into the side slopes of the closed Phosphogypsum Stack.[1]
5. Total Annual Water Volume is the summation of Ponded Water Inventory, Water Balance During Closure, Drainable Pore Water, and Infiltration water.
6. Annual Average Removal Rate, in gallons per minute (GPM), is determined by dividing the Total Annual Water Volume by 525,600 minutes per year.
7. Annual Water Removal Cost is the total annual cost in millions of dollars needed for the Total Annual Water Volume to achieve the applicable standards.
8. Planning & Closure Period O&M and Monitoring Costs represent annual program management costs, miscellaneous O&M expenses, surface water monitoring costs, groundwater monitoring costs and piezometer installation costs incurred during the five year closure construction period and one year planning period.
9. Closure Construction Costs represent the annual cost of all materials, labor and equipment to close the phosphogypsum stack system including but not

[1] The area of the side slopes of the Phosphogypsum Stack is the horizontal projection of the grassed slopes. The lined ditches and roads are not included in the slope area.

limited to: grading and earthwork with soil and phosphogypsum; HDPE liner and associated geosynthetics, cost of clay and mixing if utilized, liner soil cover; side slope drains; toe drains; sumps/pump stations; header pipes; grassing soil and phosphogypsum surfaces; security fence; surface water control; permitting and design services; and construction management, QA/QC, and surveying.

10. Program Management Costs represent the annual costs to manage the facility during the 50-year long-term care period.
11. Long Term Care Operational Costs are based on annual: (a) costs for on-site personnel to conduct maintenance, inspection and care activities during the Long Term Care period with a 5% contingency allowance; (b) surface water and groundwater monitoring and analysis costs; (c), mowing and land surface care costs; (d) contingency repairs (e.g., restoration of eroded areas); and (e) pump operation and maintenance costs (e.g., convey water from seepage collection system to water treatment).
12. Total Water Treatment and Closure Costs represent the sum of the Annual Water Treatment Costs, Planning & Closure Period O&M and Monitoring Costs, Closure Construction Costs, Long Term Care Period Program Management Costs, and Long Term Care Operational Costs.

Attachment C - ANNUAL COSTS FOR CLOSURE
_____ FACILITY
Year 20__ CURRENT CONDITION CLOSURE

			WATER REMOVAL								ANNUAL COST (MM$)					
			Water Volume (billion gallons)													
					Drainable Pore Water											
Period	Sequence Year	Calendar Year	Ponded Water Inventory	Water Balance During Closure	Stack A	Stack B	Stack C	Post-Closure Side Slope Infiltration	Total Annual Water Volume	Annual Average Removal Rate (gpm)	Water Removal	Planning & Closure Period O&M and Monitoring	Closure Construction	Program Management	Long Term Care	Total
1- Year Planning	**0**															
5-year Closure Construction Period	1	20__														
	2	20__														
	3	20__														
	4	20__														
	5	**20__**														
50-year Post-Closure Construction Long-Term Care Period	1	20__														
	2	20__														
	3	20__														
	4	20__														
	5	20__														
	6	20__														
	7	20__														
	8	20__														
	9	20__														
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	41	20__														
	42	20__														
	43	20__														
	44	20__														
	45	20__														
	46	20__														
	47	20__														
	48	20__														
	49	20__														
	50	**20__**														
Total Water Volume																
Total Cost																

Attachment D

Attachment D, Form 1-A

TRUST AGREEMENT

Instructions: The trust agreement for a trust fund, as specified in Appendix 2 of the Consent Decree, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

Trust Agreement

Trust Agreement, the "Agreement," entered into as of [*date*] by and between [*name of the owner or operator*], a [*name of State*] [*insert "corporation," "partnership," "association," or "proprietorship"*], the "Grantor," and [*name of corporate trustee*], [*insert "incorporated in the State of ----" or "a national bank"*], the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, [*and name of State Agency, an agency of name of State*], "[*abbreviation for state agency*]" have entered into a Consent Decree with [*name of the owner or operator*] requiring [*name of the owner or operator*] to provide assurance that funds will be available when needed for Phosphogypsum Stack System Closure and/or Long Term Care [*and/or Corrective Action*] of its Facility[ies] covered under the Consent Decree [*need to insert additional description of the Consent Decree*].

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any Successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the Facilities and cost estimates identified on attached Schedule A [*on Schedule A, for each facility list the EPA and (abbreviation for state agency) Identification Number, name, address, and the current Phosphogypsum Stack System Closure and/or Long Term Care (and/or Corrective Action) Cost Estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement*].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of EPA and [*abbreviation for State Agency*]. The Grantor and the Trustee intend that no third party have access to the Fund except as

herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA and [*abbreviation for State Agency*].

Section 4. Payment for Phosphogypsum Stack System Closure and Long Term Care [*and Corrective Action*]. The Trustee shall make payments from the Fund only as directed in writing by the appropriate EPA Regional Administrator and/or [*State Agency Head*] in accordance with Section 14. The Trustee shall provide for reimbursements to the Grantor or other persons from the Fund for the payment of the costs of Phosphogypsum Stack System Closure and/or Long Term Care [*and/or Corrective Action*] of the Facilities covered by this Agreement only as directed in writing by the appropriate EPA Regional Administrator and/or [*State Agency Head*]. In addition, the Trustee shall refund to the Grantor only such amounts as the EPA Regional Administrator and/or [*State Agency Head*] specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his/her duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution un-invested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund

shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Semiannual Accounting. The Trustee shall, every six (6) months from the date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator (or the designee) and [*State Agency Head*] (or the designee), a statement confirming the value of the Trust and a cumulative and calendar year accounting of the amount the Trustee has released from the Fund for reimbursement of Phosphogypsum Stack System Closure and Long Term Care [*and Corrective Action*] expenditures. The Trustee shall furnish additional valuation statements and accountings of the released funds to the Grantor and to the appropriate EPA Regional Administrator and [*State Agency Head*], as instructed in writing by the EPA Regional Administrator or [*State Agency Head*]. Any securities in the Fund shall be valued at market value as of no more than sixty (60) days prior to the Anniversary Date of establishment of the Fund or no more than sixty (60) days prior to a semi-annual accounting. The failure of the Grantor to object in writing to the Trustee within ninety (90) days after the statement has been furnished to the Grantor and the EPA Regional Administrator and the [*State Agency Head*] shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The Successor Trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the Successor Trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a Successor Trustee or for instructions. The Successor Trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the [*State Agency Head*], and the present Trustee by certified mail ten (10) days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee.

(a) All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions.

(b) All orders, requests, and instructions by the EPA Regional Administrator and the [*State Agency Head*] to the Trustee shall be in writing, signed by both the appropriate EPA Regional Administrator and [*State Agency Head*], unless otherwise indicated in instructions to the Trustee as signed by both the EPA Regional Administrator and the [*State Agency Head*]. Initial instructions by the EPA Regional Administrator and the [*State Agency Head*] to the Trustee are attached as Exhibit B. New, revised or amended instructions by the EPA Regional Administrator and the [*State Agency Head*] to the Trustee will be dated and appended hereto in this Exhibit and shall be designated Exhibit B followed by a numeric designation (e.g., Exhibit B-1, Exhibit B-2). The Trustee shall act and shall be fully protected in acting in accordance with the EPA Regional Administrator's and/or the [*State Agency Head's*] orders, requests, and instructions.

(c) The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor, EPA or [*State Agency*] hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor, EPA and/or the [*State Agency*], except as provided for herein and found in Exhibit B.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor, the appropriate EPA Regional Administrator and the [*State Agency Head*], by certified mail within ten (10) days following the expiration of the thirty (30)-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, the appropriate EPA Regional Administrator, and the [*State Agency Head*], or by the Trustee, the appropriate EPA Regional Administrator, and the [*State Agency Head*] if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, the EPA Regional Administrator, and the [*State Agency Head*], or by the Trustee, the EPA Regional Administrator, and the [*State Agency Head*] if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor, the EPA Regional Administrator and/or the [*State Agency Head*] issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [*insert name of State*].

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. Whenever the terms "EPA Regional Administrator" and "[*State Agency Head*]" are used, they shall be construed to include the term "or his/her designee". The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in Attachment D, Form 1-A of Appendix 2 of the Consent Decree [*need to insert more information regarding the description of the CD, such as the name of the case, the case number, etc*].

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

(2) The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified Appendix 2 of the Consent Decree.

State of

_____

County of

_____

On this [*date*], before me personally came [*owner or operator*] to me known, who, being by me duly sworn, did depose and say that she/he resides at [*address*], that she/he is [*title*] of [*corporation*], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

Attachment D, Form 1-B

TRUST AGREEMENT

Instructions: The trust agreement for a trust fund, as specified in Appendix 2 of the Consent Decree, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

Trust Agreement

Trust Agreement, the "Agreement," entered into as of [*date*] by and between [*name of the owner or operator*], a [*name of State*] [*insert "corporation," "limited liability company" "partnership," "association," or "proprietorship"*], the "Grantor," and [*name of corporate trustee*], [*insert "incorporated in the State of ----" or "a national bank"*], the "Trustee."

Whereas, the United States Environmental Protection Agency ("EPA"), an agency of the United States Government, and [*name of State Agency, an agency of name of State*], "[*abbreviation for state agency*]" have entered into a consent decree (the "Consent Decree") with [*name of the owner or operator*] requiring [*name of the owner or operator*] to provide assurance that funds will be available when needed for Phosphogypsum Stack System Closure and/or Long Term Care of its Facility[ies] covered under the Consent Decree [*need to insert additional description of the Consent Decree, such as the name of the case, the case number, etc.*].

Whereas, Appendix 2 of the Consent Decree establishes requirements for the Trust Agreement,

Whereas, the Grantor has elected to establish a trust to provide all or part of such Financial Assurance for the Facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee, and

Whereas, it is in the interest of the Beneficiaries, and the intent of the Grantor and Beneficiaries, that the Trustee invest and re-invest the principal and income of the [*insert State name*] Phosphogypsum Trust Fund with the express purpose of achieving full funding (i.e., the value of the [*insert State name*] Phosphogypsum Trust Fund equals or exceeds the Total [*insert State name*] Cost Estimate) as soon as possible, consistent with prudent investment practices and managing the risk levels of such investments to preserve principal and income as set forth in this Trust Agreement (Sections 6 and 7) and its attachment, Schedule C.

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. Unless otherwise defined in this Agreement, the capitalized items in the Trust Agreement, including the preambles and any attachments, have the meaning provided in the Consent Decree, including Appendix 1, Attachment F, and Appendix 2.

As used in this Agreement:

(a) The term "Grantor" means [*the name of the owner or operator*] and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any Successor Trustee.

(c) The term "Beneficiaries" means the U.S. Environmental Protection Agency and the [*insert appropriate State Agency*].

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the Facilities and Cost Estimates identified on attached Schedule A [*on Schedule A, for each Facility list the EPA and (abbreviation for State Agency) Identification Number, name, address, and the current Phosphogypsum Stack System Closure and/or Long Term Care Cost Estimates for the Facilities.*]

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund (the "[*insert state name*] Phosphogypsum Trust Fund" or the "Fund") for the benefit of EPA and [*insert for State Agency*]. The Grantor and the Trustee intend that no third party have access to the [*insert state name*] Phosphogypsum Trust Fund except as herein provided. The [*insert state name*] Phosphogypsum Trust Fund is established initially as consisting of funds in the amount described in Schedule B attached hereto. All such funds and any other property subsequently transferred to the Trustee is referred to as the [*insert state name*] Phosphogypsum Trust Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The [*insert state name*] Phosphogypsum Trust Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA, and [*abbreviation for State Agency*].

Section 4. Reimbursement and Payment for Phosphogypsum Stack System Closure and Long Term Care and Release of Funds.

a. The Trustee is authorized to make payments from the Fund to the Grantor or other persons pursuant to the reimbursement procedure set forth in subparagraph b, below, the release procedure set forth in subparagraph c, below, or the payment procedure set forth in subparagraph f, below.

b. The Trustee shall make reimbursements to the Grantor or other persons specified by the EPA Regional Administrator and [*State Agency Head*] only as directed in writing by the EPA Regional Administrator and [*State Agency Head*] in accordance with Section 14, for the costs of Phosphogypsum Stack System Closure and/or Long Term Care of the Facilities covered by this Agreement listed in Schedule A or for the reimbursement of taxes paid by Grantor that have been levied or assessed against the [*insert state name*] Phosphogypsum Trust Fund or based on its income.

c. The Trustee shall release to the Grantor from the Fund only such amounts as the EPA Regional Administrator and [*State Agency Head*] specifies in writing.

d. Upon reimbursement or release of funds, such funds shall no longer constitute part of the Fund

described herein.

e. No reimbursements or releases of funds from the Fund under subparagraphs b or c shall be made until the value of the [*insert state name*] Phosphogypsum Trust Fund equals or exceeds the Total [*insert state name*] Cost Estimate, unless the Grantor ceases to exist, in which event reimbursements and releases by the Trustee from the Fund shall only be made in accordance with written instructions by the EPA Regional Administrator and [State Agency Head] as set forth in this Section.

f. In the event of Work Takeover pursuant to Section [*insert Section designation of the Consent Decree*] (Work Takeover) of the Consent Decree, or if the Grantor ceases to exist, payments by the Trustee shall be made in accordance with written instructions by the EPA Regional Administrator and [*State Agency Head*].

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash.

Section 6. Trustee Management.

The Trustee shall invest and reinvest the principal and income of the [*insert state name*] Phosphogypsum Trust Fund and keep the [*insert state name*] Phosphogypsum Trust Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, with a copy to EPA and [*abbreviation for State Agency*] subject, however, to the provisions of this Section, and as described in Section 7 and Schedule C. In investing, reinvesting, exchanging, selling, and managing the [*insert state name*] Phosphogypsum Trust Fund, the Trustee shall discharge his/her duties with respect to the Fund solely in the interest of the beneficiaries and with the care, skill, prudence, and diligence under the circumstances then prevailing which prudent investors, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), or any Related Parties as defined in Appendix 2, shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the [*insert state name*] Phosphogypsum Trust Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution un-invested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. Subject to Section 6, the Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee or its affiliates. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale or by other means (i.e., redemptions, stock splits, transactional sales, property or cash disbursements as part of a bankruptcy). No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes, Fees, and Expenses.

(a) All taxes of any kind that may be assessed or levied against or in respect of the Fund shall be paid or funded by the Grantor. All other fees and expenses incurred by the Trustee in connection with the administration of this Trust, including brokerage commissions, accounting services, reasonable fees for legal services rendered to the Trustee, the compensation of the Trustee, costs incurred by Sub-advisors, penalties, and all other proper charges and disbursements of the

Trustee shall be paid or funded by the Grantor. Payment or funding for such taxes, fees, and expenses by the Grantor shall be made as set forth in the Addendum. If the Grantor ceases to exist, payment for such fees and expenses shall be made as set forth in the Addendum. The Trustee under no circumstances shall be responsible in its corporate capacity for any Trust taxes, fees, or other expenses with respect to the Trust.

Section 10. Accounting. The Trustee shall, on a semi-annual basis, furnish to the Grantor and to the EPA Regional Administrator and [*State Agency Head*], a statement confirming the value of the Fund and investments made by the Trustee (including applicable ratings on such investments), and a cumulative and calendar year accounting of the amount the Trustee has paid from the Fund for reimbursements, releases, or payments from the Fund pursuant to Section 4. If the Trustee is informed by the Grantor that the Grantor's Liquidity Buffer has fallen below $1 billion, then the Trustee shall, on a quarterly basis, furnish to the Grantor and to the EPA Regional Administrator and [*State Agency Head*], a statement confirming the value of the Fund, investments made by the Trustee (including applicable ratings on such investments), and a cumulative and calendar year accounting of the amount the Trustee has paid from the Fund for reimbursement, releases, or payments from the Fund. The Trustee shall also furnish a listing of the applicable ratings of the investments of the Fund and shall furnish additional valuation statements and accountings that are within the Trustee's standard operating procedures of the funds paid to the Grantor and any other person, as instructed in writing by the EPA Regional Administrator and [*State Agency Head*]. EPA and [*abbreviated State Agency*] shall have access to any client-accessible online account information for the [*insert State*] Phosphogypsum Trust Fund. Any securities in the Fund shall be valued at market value as of no more than sixty (60) days prior to the anniversary date of establishment of the Fund or sixty (60) days prior to a quarterly accounting. The failure of the Grantor to object in writing to the Trustee within ninety (90) days after the statement has been furnished to the Grantor, the EPA Regional Administrator, and the [*State Agency Head*], shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor, or with EPA and [*abbreviation for State Agency*] if the Grantor ceases to exist.

Section 13. Successor Trustee. The Trustee may resign or the Grantor, or the EPA Regional Administrator and the [*State Agency Head*] if the Grantor ceases to exist, may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor, or the EPA Regional Administrator and the [*State Agency Head*] if the Grantor ceases to exist, has appointed a Successor Trustee and this successor accepts the appointment. The Successor Trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the Successor Trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the Successor Trustee the funds and properties then constituting the Fund. If for any

reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction in [*insert appropriate State*] for the appointment of a Successor Trustee or for instructions and must send notice in writing of such actions to the EPA Regional Administrator and [*State Agency Head*]. The Successor Trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the [*State Agency Head*], and the present Trustee by certified mail ten (10) days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9, above.

Section 14. Instructions to the Trustee. The Trustee shall from time to time receive instruction as set forth below, and which will be set out in the applicable Exhibit in Schedule D.

(a) All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Schedule D, Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. Initial instructions by the Grantor to the Trustee are attached as Schedule D, Exhibit B. New, revised or amended instructions by the Grantor to the Trustee shall be dated and appended to these Exhibits and shall be designated Exhibit B, respectively, followed by a numeric designation (e.g., Exhibit B-1, Exhibit B-2).

(b) All orders, requests, and instructions by the EPA Regional Administrator and the [*State Agency Head*] to the Trustee shall be in writing, signed by both the EPA Regional Administrator and the [*State Agency Head*], unless otherwise indicated in instructions to the Trustee as signed by both the EPA Regional Administrator and the [*State Agency Head*]. Initial instructions by the EPA Regional Administrator and the [*State Agency Head*] to the Trustee are attached as Schedule D, Exhibit C. New, revised or amended instructions by the EPA Regional Administrator and the [*State Agency Head*] to the Trustee will be dated and appended to Exhibit C followed by a numeric designation (e.g., Exhibit C-1, Exhibit C-2). The Trustee shall act and shall be fully protected in acting in accordance with the EPA Regional Administrator's and/or the [*State Agency Head's*] orders, requests, and instructions with respect to the Fund and shall be fully protected in acting in accordance with instructions from the EPA Regional Administrator's and the [*State Agency Head*] with respect to the Fund generally.

(c) The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor, EPA or [*abbreviated State Agency*] hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor, EPA and/or the [*State Agency*], except as provided for herein in this Agreement.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, the EPA Regional Administrator, and the [*State Agency Head*] or by the Trustee, the EPA Regional Administrator, and the [*State Agency Head*], if the Grantor ceases to exist. Such an amendment may also take the form of a Trust Addendum ("Addendum") executed by the Grantor and the Trustee provided that the Addendum supplements and does not contain terms that conflict, supersede, revise, or alter the terms of the

Trust Agreement (or the requirements of Appendix 2 of the Consent Decree), and the Addendum is approved by EPA and [*insert State Agency designation*] in their unreviewable discretion prior to the Addendum taking effect. Any changes to Schedules A, B, and D must: (1) conform to the Trust Agreement and Addendum, if applicable, and (2) are not required to go through the process delineated in Section XVII (Modification Section) of the Consent Decree.

Section 16. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 15, this [*insert State name*] Phosphogypsum Trust Fund shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, the EPA Regional Administrator, and the [*State Agency Head*], or by the Trustee, the EPA Regional Administrator, and the [*State Agency Head*] if the Grantor ceases to exist. Upon termination of the Trust, all remaining Fund property, less final trust administration expenses, shall be delivered to the Grantor unless otherwise directed by the Grantor or, if the Grantor has ceased to exist, by a Court of competent jurisdiction.

Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor, the EPA Regional Administrator and the [*State Agency Head*] issued in accordance with this Agreement. The Trustee shall be indemnified and held harmless by the Grantor or from the Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. Choice of Law and Jurisdiction and Venue for Disputes. This Agreement shall be administered, construed, and enforced according to the laws of the State of Washington. Any disputes that may arise hereunder among two or more of the Grantor, the Trustee, and the Beneficiaries shall be resolved before the United States District Court having jurisdiction over the Consent Decree, and the Grantor, the Trustee and the Beneficiaries each consent to jurisdiction and venue before that court. In the event that such court decides not to exercise jurisdiction over any such dispute, then such dispute shall be submitted to a court of competent jurisdiction of [*insert appropriate State*] and the Grantor, the Trustee, and the Beneficiaries each consent to jurisdiction and venue before that court. No litigation related to this Agreement shall be commenced by the Grantor, the Trustee, or the Beneficiaries in a court outside of [*insert appropriate State*].

Section 19. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The term “Regional Administrator” as referenced in this Trust Agreement shall also include the Assistant Administrator of the EPA Office of Enforcement and Compliance Assurance or his/her designee, provided that when the approval of the Regional Administrator is required hereunder, the approval of either the Regional Administrator, or his/her designee, or the Assistant Administrator of the EPA Office of Enforcement and Compliance Assurance or his/her designee, shall be sufficient. Whenever the terms “EPA Regional Administrator” and “[*State Agency Head*]” are used, they shall be construed to include the term “or his/her designee.” The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in Attachment D, Form 1-B, of Appendix 2 of the Consent Decree, with bracketed material appropriately included.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

(2) The following is an example of the certification of acknowledgment which must accompany the Trust Agreement for a [*insert state name*] Phosphogypsum Trust Fund as specified Appendix 2 of the Consent Decree.

State of _____

County of _____

On this [*date*], before me personally came [*owner or operator*] to me known, who, being by me duly sworn, did depose and say that she/he resides at [*address*], that she/he is [*title*] of [*corporation or limited liability company*], the [*corporation or limited liability company*] described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of [*Directors or Managers*] of said [*corporation or limited liability company*], and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

Schedule A

Pursuant to Section 2, the Agreement demonstrates Financial Assurance for the following Cost Estimate(s) for the following Facility(ies):

Facilities		**Cost Estimates**	
Operating Facilities			
EPA Identification Number:		Stack System Closure:	$
FDEP Identification Number:		Closure Associated Water Management:	$
Facility Name:	Bartow	Long Term Care (LTC):	$
Address:		LTC Associated Water Management:	$
		Subtotal:	$
EPA Identification Number:		Stack System Closure:	$
FDEP Identification Number:		Closure Associated Water Management:	$
Facility Name:	New Wales	Long Term Care (LTC):	$
Address:		LTC Associated Water Management:	$
		Subtotal:	$
EPA Identification Number:		Stack System Closure:	$
FDEP Identification Number:		Closure Associated Water Management:	$
Facility Name:	Riverview	Long Term Care (LTC):	$
Address:		LTC Associated Water Management:	$
		Subtotal:	$

Facilities (continued)		**Cost Estimates**	
Closing Facilities			
EPA Identification Number:			
FDEP Identification Number:			
Facility Name:	Green Bay	Long Term Care (LTC):	$
Address:		LTC Associated Water Management:	$
		Subtotal:	$
EPA Identification Number:			
FDEP Identification Number:			
Facility Name:	South Pierce	Long Term Care (LTC):	$
Address:		LTC Associated Water Management:	$
		Subtotal:	$

Total Cost Estimate, Schedule A (Operating and Closing Facility(ies): $

Schedule B

A. Funding of the [*insert state name*] Phosphogypsum Trust Fund

The [*insert state name*] Phosphogypsum Trust Fund initially consists of the following property:

- [*Insert amount of deposit specified in the Consent Decree. Specify that such a deposit is in cash.]*

B. Stand-by Trust

If needed, the [*insert state name*] Phosphogypsum Trust Fund will act as a Stand-by Trust for deposits from, as applicable: a letter of credit, surety bond, or insurance proceeds. If and when, under the terms of any Letter of Credit amounts are to be paid pursuant to a draft by EPA, such amounts will be deposited by the issuing institution into the [*insert state name*] Phosphogypsum Trust Fund in accordance with instructions from EPA. Changes to the property of the [*insert state name*] Phosphogypsum Trust Fund will be set forth in the trust accounting statements of the [*insert state name*] Phosphogypsum Trust Fund and the value and activity attributable to the deposit will be reflected in the accounting or valuation statements, as described in Section 10 of the Trust Agreement.

Schedule C

I. Instructions on Investment of the [*insert state name*] Phosphogypsum Trust Fund

(1) In accordance with Section 6 and 7 of the Trust Agreement, the following additional instructions apply to the investment and re-investment of the principal and income of the Fund:

(a) The Trustee shall invest at least forty percent (40%) and no more than 50% of the [*insert state name*] Phosphogypsum Trust Fund in U.S. Treasury Securities. Beginning twelve (12) months after the Effective Date of this Agreement, no more than five percent (5%) of the [*insert state name*] Phosphogypsum Trust Fund (based on current asset values) shall be invested in U.S. Treasury Securities with maturities less than three (3) years provided that any Treasury Securities originally purchased with a maturity of greater than ten (10) years and then held in the [*insert state name*] Phosphogypsum Trust Fund shall not be counted against this five percent (5%) limitation when its maturity becomes less than three (3) years. The remainder of the investments in U.S. Treasury Securities shall have maturities equal to or greater than three (3) years.

(b) The Trustee shall invest no more than fifteen percent (15%) of the [*insert state name*] Phosphogypsum Trust Fund in Investment Grade corporate securities or municipal securities with ratings by a Nationally Recognized Statistical Rating Organization of BBB/Baa2 (or equivalent).

(c) The Trustee shall invest the balance of the [*insert state name*] Phosphogypsum Trust Fund in Investment Grade corporate securities or municipal securities with ratings by a Nationally Recognized Statistical Rating Organization of at least BBB+/Baa1 (or equivalent) or above.

(d) In the event that as a result of either the downgrading of one or more investments of the [*insert state name*] Phosphogypsum Trust Fund or other circumstances outside the control of the Trustee, either (i) the [*insert state name*] Phosphogypsum Trust Fund holds one or more corporate or municipal securities which do not have ratings by a Nationally Recognized Statistical Rating Organization of at least BBB/Baa2 (or equivalent), or (ii) the portion of the [*insert state name*] Phosphogypsum Trust Fund invested in corporate or municipal securities rated BBB/Baa2 (or equivalent) exceeds 15%, the Trustee shall have a reasonable and prudent period of time to take steps to conform to the requirements of these instructions.

(e) To the extent a corporate or municipal security has two or more ratings by a Nationally Recognized Statistical Rating Organization, then for purpose of paragraphs (b) and (c), the lower of such ratings shall be utilized.

(f) Following any payments from the [*insert state name*] Phosphogypsum Trust Fund in accordance with Section 4 of the Trust Agreement, the Trustee shall only invest in U.S. Treasury Securities. At such time, the Trustee shall be afforded a reasonable and prudent period of time to dispose of securities other than U.S. Treasury Securities and to acquire U.S. Treasury Securities.

II. Instructions on Investment of Deposit from a Letter of Credit into the [*insert state name*] Phosphogypsum Trust Fund

(1) In accordance with Section 6 and 7 of the Trust Agreement, the following additional instructions apply to the investment of the Standby Trust: The Trustee shall invest any funds placed into the Fund from a letter of credit, in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government, so long as such deposits have no penalties for immediate withdrawal; or in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution, to the extent insured by an agency of the Federal or State government, so long as such accounts have no penalties for immediate withdrawal; or invested in other mechanisms, accounts, or securities that are immediately accessible and which carry no penalty for immediate withdrawal, unless otherwise specified at the time of the additional deposit.

Schedule D

Exhibit A

The following sets forth the Grantor's designated persons who may issue written orders, requests and instructions to the Trustee on behalf of the Grantor. New, revised or amended instructions following the Grantor's initial instruction regarding such designated persons, will be dated and appended to this Exhibit and shall be designated Exhibit A, followed by a numeric designation (e.g., Exhibit A-1, Exhibit A-2).

[*Insert Grantor's designated persons who may issue written orders, requests and instructions to the trustee on behalf of the Grantor, as required by Section 14 of the Trust Agreement*.]

Schedule D

Exhibit B

Nothing in the Grantor's instructions shall alter or waive the rights of EPA or FDEP to protect their interest in the [*insert state name*] Phosphogypsum Trust Fund.

The following sets forth the Grantor's initial instructions to the Trustee. New, revised or amended instructions following the Grantor's initial instruction to the Trustee (which shall be dated), will be dated and appended to this Exhibit and shall be designated Exhibit B, followed by a numeric designation (e.g., Exhibit B-1, Exhibit B-2). The Grantor's initial instructions, "Investment Policies and Guidelines," are in accordance with the investment parameters in Appendix 2, Paragraph 30.i.(1) and Section 6, Section 7, and Schedule C of this Trust Agreement.

Initial Investment Policies and Guidelines for Trustee Pursuant to Trust Agreement and Trust Agreement Addendum

These investment policies and guidelines are provided by Mosaic Fertilizer LLC ("Mosaic") to Russell Investment Company pursuant to Section 6 of the Trust Agreement, dated _____. These policies and guidelines are subject in all respects to the requirements and conditions of the Trust Agreement and Trust Agreement Addendum, including modification of any the policies and guidelines.

I. OBJECTIVE

A. Seeks to provide a moderate long-run total return and aims to meet the full funding objective as soon as achievable consistent with the limitations of the Trust Agreement and the additional risk characteristics outlined in these investment policies and guidelines.

B. Seeks to provide 25-50 basis points of excess return over benchmark, gross-of-fees, over a market cycle (~5 years).

C. Provide clear guidelines as to the allocation of investments among Treasury instruments, and investment grade corporate and municipal instruments.

II. PERFORMANCE BENCHMARK

A. The Trust's performance benchmark will be the composite benchmark of its underlying strategies

and their policy weights, which may vary through time.

B. Given the initial policy allocation, the Trust's starting performance benchmark will be 40% US Treasuries with a maturity profile aligned with the Glide Path detailed in Section IV, 30% Barclays U.S. Corporate Intermediate Index, and 30% Barclays U.S. Municipal 1-10 Year Index.

III. POLICY ALLOCATION

A. 40% U.S. Treasuries managed by Russell, 30% Intermediate Corporates managed by Russell or a Russell-appointed sub-advisor, 30% Municipal Bonds managed by Russell or a Russell-appointed sub-advisor. These are targets subject to the ranges set forth below. In addition, the *[insert state name]* Phosphogypsum Trust Fund may hold funds in interest bearing accounts of a banking institution to the extent insured by an agency of the Federal or State government.

B. The allocation to U.S. Treasuries (which may include U.S. backed obligations of U.S. Agencies) shall at all times be no less than 40% and no more than 50% of the Net Asset Value (NAV) of the *[insert state name]* Phosphogypsum Trust Fund. The allocation to municipal bonds shall at all times be no less than 25% and no more than 35% of the NAV of the *[insert state name]* Phosphogypsum Trust Fund. The allocation to corporate instruments shall at all times be no less than 25% and no more than 35% of the NAV of the *[insert state name]* Phosphogypsum Trust Fund.

IV. GLIDE PATH

A. The US Treasury allocation will vary in its maturity profile according to changes in yield on the 10-year US Treasury as expressed by the following glide path:

- 10-year yield less than 2.00% = 100% 5-yr
- 10-year yield 2.00-2.74% = 80% 5-yr, 20% 10-yr
- 10-year yield 2.75-3.49% = 60% 5-yr, 40% 10-yr
- 10-year yield 3.50-4.24% = 40% 5-yr, 60% 10-yr

- 10-year yield 4.25-4.99% = 20% 5-yr, 80% 10-yr
- 10-year yield greater than 4.99% = 100% 10-yr

B. Actual maturities held may vary within +/- 1 year-to-maturity from the glide path target.

C. When the 10-year Treasury yield reaches 4.99% Mosaic and Russell will reevaluate the appropriate duration target for the *[insert state name]* Phosphogypsum Trust Fund in light of the full funding objective and the Trust's asset size at which time this Glide Path may be altered to encompass US Treasury instruments with maturities greater than 10 years.

D. In conjunction with moves along the glide path, the performance benchmark will also change to include an equivalent weight in the Barclays Treasuries Bellwethers:10-Year Index and other appropriate benchmarks as the maturity of the investments extend beyond 10 years.

V. INVESTMENT PARAMETERS

1. Duration Range

a) Portfolio effective duration is permitted to range from 0.70 to 1.30 times the duration of the benchmark at all times.

b) Benchmark duration will be adjusted over time in accordance with the Glide Path set forth in these guidelines and any other changes to the Policy Allocation.

2. Maturity Limits

a) No individual security restrictions, except that starting 12 months after the Effective Date of the Trust Agreement, no more than 5% of the NAV of the *[insert state name]* Phosphogypsum Trust Fund shall consist of, in the aggregate, (i) US Treasury Securities with maturities of less than three years, or (ii) interest bearing accounts of a banking institution to the extent insured by an agency of the Federal or State government.

b) Yield curve strategies are permitted.

3. Quality

a) The *[insert state name]* Phosphogypsum Trust Fund will hold at least 40% and no more than 50% of its NAV in US Treasuries and US government-guaranteed securities.

b) The portfolio may not purchase corporate or municipal securities rated below BBB or Baa2 at the time of purchase, based on the lower rating for split rated issues.

(c) Previously purchased securities downgraded below BBB or Baa2 may be held for a reasonable and prudent period of time if Russell believes it is in the interest of the Fund to do so.

(d) No more than 15% of the NAV of the portfolio may be in securities with ratings of either BBB or Baa2. If previously purchased securities are downgraded such that more than 15% of the NAV of the portfolio is rated either BBB or Baa2, the excess shall be transferred to securities rated above BBB and Baa2, but those excess securities may be held for a reasonable and prudent period of time if Russell believes it is in the interest of the Trust to do so.

4. Diversification

a) The following diversification requirements apply to corporate and municipal securities:
(i) No more than 5% of the NAV of the *[insert state name]* Phosphogypsum Trust Fund may be held in securities from any one issuer (other than the US Treasury).
(ii) No more than 10% of the NAV of the *[insert state name]* Phosphogypsum Trust Fund may be held in any one corporate industry as defined by Barclays Capital.

5. Asset Class Exposure

a) Exposure to common stock and stock indices is prohibited except when acquired as a part of a debt restructuring, in which case it must be liquidated within three months.

6. Liquidity

a) Illiquid securities will not exceed 5% of the portfolio at the time of purchase and must have daily pricing.

b) Illiquid securities are those which

- Do not have an active secondary market (making it difficult for an owner of the security to sell it); or

- Do not have a readily available market or that are subject to resale restrictions.

7. Leverage & Shorting **a)** The borrowing of money or securities for the purposes of leveraging, shorting, or other investment is prohibited.

8. General Requirements **a)** Any departure from these guidelines must be reported in writing to Mosaic, EPA, FDEP, and LDEQ as soon as discovered.

9. Other **a)** See Eligible/Prohibited Investments Table.

Fund Level Requirements

1. OTC Derivatives Counterparty Exposure--Not allowed
2.Non-U.S. dollar denominated bonds--not allowed.

TYPE OF INVESTMENT	ELIGIBLE	PROHIBITED	COMMENTS
U.S. Treasury Securities	X		
U.S. Agency Securities	X		
Mortgage-Related Securities		x	
Asset-Backed Securities		x	
Corporate Securities (public)	X		
Municipal bonds	x		
DERIVATIVES:	No investment, including futures, options and other derivatives, may be purchased if its return is directly or indirectly determined by an investment prohibited elsewhere in these guidelines.		
Futures		x	
Options		x	
Currency Forwards		x	
Currency Futures		x	
Currency Options		x	
Currency Swaps		x	
Interest Rate Swaps		x	
Total Return Swaps		x	
Structured Notes		X	
Collateralized Debt Obligations		x	
Credit Default Swaps		X	
Mortgage-Related Derivatives		X	
FOREIGN / NON-U.S. DOLLAR:			
Foreign CDs		X	
Foreign U.S. Dollar Denominated Securities		X	
Non-U.S. Dollar Denominated Bonds		X	
Supranational U.S. Dollar Denominated Securities		X	
COMMINGLED VEHICLES (except STIF):			
Collective Funds		X	
Commingled Trust Funds (open ended mutual funds only)		X	
Common Trust Funds		X	
Registered Investment Companies		X	

MONEY MARKET SECURITIES:			
Qualified STIF		x	
Interest Bearing Bank Obligations Insured by a Federal or State Agency	X		
Commercial Paper		x	
Master Note Agreements and Demand Notes		x	
Repurchase Agreements		x	
OTHER:			
Bank Loans		x	
Convertibles (e.g., Lyons)		x	
Municipal Bonds	X		
Preferred Stock		x	
Private Placements (excluding 144A)	X		
Rule 144A Issues	X		
Zero Coupon Bonds	X		
Commodities		X	
Catastrophe Bonds		X	

Schedule D

Exhibit C

The following sets forth the EPA Regional Administrator's and the [*State Agency Head*] initial instructions to the Trustee. New, revised or amended instructions following such initial instructions to the Trustee (which shall be dated), will be dated and appended to this Exhibit and shall be designated Exhibit C, followed by a numeric designation (e.g., Exhibit C-1, Exhibit C-2).

Instructions to Trustee for Reimbursement, Releases, or Payment of Funds[1]

1. The Trustee shall act and shall be fully protected in acting in accordance with written orders, requests, and instructions signed solely by either the EPA Regional Administrator or the [*State Agency Head*],[2] where written instructions signed by both the EPA Regional Administrator and the [*State Agency Head*] have authorized either the EPA Regional Administrator or [*State Head*] to act independently to provide such orders, requests, and instructions for reimbursements in accordance with subparagraph 2, below, releases in accordance with subparagraph 3, below, or payments in accordance with subparagraph 4, below.

2. Reimbursement. Each year, or more often as needed, for the purpose of providing reimbursements from the Fund, [*State Agency Head*] and EPA will jointly provide written instructions to the Trustee specifying a cumulative "Reimbursable Amount" for the Facilities listed in Schedule A. The Trustee shall reimburse the Grantor or other persons authorized to conduct Phosphogypsum Stack System Closure and/or Long Term Care as specified by the [*State Head*] from the Fund for Phosphogypsum Stack System Closure and/or Long Term Care expenditures in such amounts as the [*State Agency Head*] shall direct, in writing, up to the Reimbursable Amount, without the need for written direction or concurrence by the EPA Regional Administrator. The initial Reimbursable Amount is $ 0.00.[3]

The Trustee may not pay-out any amount from the Fund over the Reimbursable Amount without joint instructions in writing by both the EPA Regional Administrator and [*State Agency Head*].

The Trustee shall notify the EPA Regional Administrator if the Trustee receives directions, including those in writing, from the [*State Head*], to reimburse the Grantor or other persons specified by the [*State Agency Head*] from the Fund for expenditures in excess of the Reimbursable Amount.

3. Releases. The Trustee shall release funds from the Fund upon the joint written instructions of

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[1] The instructions in this Exhibit C apply so long as the Trustee has not received written notice from the EPA Regional Administrator and the [*State Agency Head*] that Section [*insert section designation of the Consent Decree*] (Work Takeover) of the Consent Decree has been triggered. The EPA Regional Administrator and the [*State Agency Head*] will send additional written instructions to the Trustee in the event that Section [*insert section designation of the Consent Decree*] (Work Takeover) of the Consent Decree has been triggered.

[2] Whenever the terms "[*State Agency Head*]" or "EPA Regional Administrator" are used, they shall be construed to include the phrase, "or his/her designee." Additionally, the term "Regional Administrator" as referenced in these instructions shall also include the Assistant Administrator of the EPA Office of Enforcement and Compliance Assurance or his/her designee.

[3] As the Grantor (or other authorized person) is not conducting Phosphogypsum Stack System Closure and/or Long Term Care covered by this Fund at the Facilities listed in Schedule A, there is no set Reimbursable Amount as of Date __, 2016.

[*State Agency Head*] and EPA.

4. Payments. The Trustee shall make payments from the Fund upon joint written instructions of [*State Agency Head*] and EPA.

_____ _____
EPA Regional Administrator Date

_____ _____
State Head Date

Attachment D, Form 2

TRUST AGREEMENT ADDENDUM

This Trust Agreement Addendum dated as of [*insert date*] ("Addendum") is executed by and between Mosaic Fertilizer, Inc. (the "Grantor") and Russell Investment Company as trustee (the "Trustee"), and relates to the Trust Agreement dated as of [*insert date*] (the "Trust Agreement") between the Grantor and the Trustee in connection with the Consent Decree entered into by the U.S. Environmental Protection Agency ("EPA") and [*insert as applicable the Florida Department of Environmental Protection ("FDEP") or the Louisiana Department of Environmental Quality ("LDEQ")*] and the Grantor. Capitalized terms used herein but not defined herein shall have the meanings given to them in the Trust Agreement.

Nothing in this Trust Agreement Addendum shall be construed to contradict or supersede the terms of the Trust Agreement. In the event of any conflict between the Trust Agreement and the Addendum, the Trust Agreement shall control.

Section 1. The following provisions shall supplement Section 6 of the Trust Agreement with respect to the Trustee management:

a. Any modification to Schedule C of the Trust Agreement is subject to the Section XVIII (Modification Section) of the Consent Decree and must be in writing signed by the Grantor, EPA and [*abbreviation State Agency*] or, if the Grantor ceases to exist, by EPA and [*abbreviation State Agency*]. Any changes by the Grantor to investment policies and guidelines (Schedule D, Exhibit B of the Trust Agreement) shall first be sent to EPA and [*abbreviation State Agency*] and may thereafter be communicated to the Trustee unless either EPA or the [*abbreviation State Agency*] has objected within ninety (90) Days thereof. EPA's and/or [*abbreviation State Agency*] failure to object to any change to investment policy and guidelines shall not be construed as approval or acceptance of the Grantor's instructions and does not alter or waive the rights of EPA or [*abbreviation State Agency*] to protect their interest in the Florida Phosphogypsum Trust Fund. The Grantor's initial instructions, "Investment Policies and Guidelines" (Schedule D, Exhibit B of the Trust Agreement), are in accordance with the investment Parameters in Appendix 2, Paragraph 30.i.(1) and Section 6, Section 7, and Schedule C of the Trust Agreement.

b. The Trustee may hire one or more persons or entities to provide certain investment management services in the day-to-day management of the Fund (each, a "Sub-advisor"). The Sub-advisor shall be bound by and perform all duties in compliance with the terms of the Trust Agreement, this Addendum and applicable law and regulations, and shall manage investments of the Fund as set forth in the Trust Agreement. In addition, the *[insert State name]* Phosphogypsum Trust Fund shall not acquire or retain investments that are deposits with or other liabilities of any Sub-advisor or any affiliate of such Sub-advisor. Once a quarter, or upon request, the Trustee shall make available to the Beneficiaries (i.e., U.S. EPA, and [*as applicable FDEP or LDEQ*]) and the Grantor a list of the Sub-advisors engaged by the Trustee.

c. A Sub-advisor shall discharge his/her duties with respect to the [*insert State name*] Phosphogypsum Trust Fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in like capacity and familiar with such matters, would use in the conduct of an enterprise in a like character and with like aims except as set forth in the Trust Agreement, this Addendum or applicable law. A Sub-advisor shall not incur personal liability of any nature in connection with an act or omission, made in good faith, in providing services to the Trustee in the day-to-day management of the [*insert State name*] Phosphogypsum Trust Fund. If the Trustee receives or has knowledge of an action by a Sub-advisor that is not in conformance with the Trust Agreement, this Addendum, any agreement between the Trustee and the Sub-advisor, or applicable law or regulations, the Trustee shall notify the Beneficiaries and the Grantor of such action immediately, and the action being taken by the Trustee to remedy the non-conformance. Such notice shall not affect the Beneficiaries' authority to take any appropriate actions related to such non-compliance.

d. A Sub-advisor shall only engage in those activities that are specifically described in this Addendum as ones that may be performed by a Sub-advisor.

e. Payment for the services of a Sub-advisor and any fees, taxes, or costs associated with services provided by the Sub-advisor shall not be paid from the [*insert state name*] Phosphogypsum Trust Fund but is the obligation of the Grantor.

f. The Grantor authorizes the Trustee to engage its affiliates in providing services for the [*insert State name*] Phosphogypsum Trust Fund, including, but not limited to, engaging its affiliated broker, Russell Implementation Services, Inc., to provide investment management and brokerage services on behalf of the [*insert State name*] Phosphogypsum Trust Fund. In addition to applicable law and regulations, in managing potential conflicts of interest, the Trustee, its affiliates, and their employees shall adhere to its Global Code of Conduct and Regional Codes of Ethics, which include specific restrictions and discussions regarding the steps the Trustee takes to manage potential conflicts of interests. Should any conflict arise between applicable laws and regulations in managing potential conflicts of interest and the Global Code of Conduct and Regional Codes of Ethics, the applicable laws and regulations shall govern. Furthermore, in assessing whether and under what terms to engage an affiliate, the Trustee shall discharge its duties with respect to the [*insert State name*] Phosphogypsum Trust Fund solely in the interest of the beneficiaries and with the care, skill, prudence, and diligence under the circumstances then prevailing which prudent investors, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims.

g. A copy of any investment policies and guidelines provided by the Grantor must also be provided to the Beneficiaries.

<u>Section 2</u>: The following provisions shall supplement Section 8 of the Trust Agreement with respect to the express powers of the Trustee.

a. To employ suitable agents, including custodians, recordkeepers, auditors, and legal counsel. Payment for the services of agents, custodians, recordkeepers, auditors, and legal

counsel, or any other expense, compensation, fees, or costs for services rendered by persons employed by the Trustee (both those affiliated and not affiliated with the Trustee), shall (except as provided in Section 9 of the Trust Agreement) not be paid from the [*insert state name*] Phosphogypsum Trust Fund but is an obligation of the Grantor.

b. To participate in and to consent to, or oppose, any plan or reorganization, consolidation, merger, liquidation, or other similar plan relating to any property of the [*insert State name*] Phosphogypsum Trust Fund, and to the extent permitted by applicable law, to deposit any property with any protective, reorganization, or similar committee. The Trustee, as permitted by applicable law, may delegate discretionary power to such committee. Any expenses and compensation of the committee agreed to be paid, as well as any assessments levied with respect to any property so deposited, shall (except as provided in Section 9 of the Trust Agreement) not be paid from the [*insert State name*] Phosphogypsum Trust Fund but is an obligation of the Grantor.

c. Generally to do all acts, and to make, execute and deliver all such deeds, contracts, and other instruments, in certain circumstances (i.e., bankruptcy, mergers, or reorganizations), which the Trustee may deem necessary or desirable to carry out the purposes of the foregoing powers or for the protection of the [*insert State name*] Phosphogypsum Trust Fund. The Trustee will take a reasonable and prudent period of time to convert any instruments it may acquire that do not conform to the investments described in Schedule C to the Trust Agreement into the investments that do conform to Schedule C to the Trust Agreement.

Section 3: The following provisions shall supplement the Trust Agreement with respect to the rights, duties, liabilities, privileges, and immunities of the Trustee set forth in the Trust Agreement.

a. The Trustee shall be obligated only to perform the duties specifically set forth in the Trust Agreement and this Addendum. The Trust Agreement and this Addendum set forth all matters pertinent to the [*insert State name*] Phosphogypsum Trust Fund contemplated thereunder and hereunder, and no additional obligations of the Trustee shall be inferred from the terms of the Trust Agreement or any other agreement.

b. No provision of this Agreement shall require the Trustee to risk or advance its own funds or otherwise incur any financial liability in the performance of its duties or the exercise of its rights, where such performance and rights are exercised in a manner consistent with this Agreement.

Section 4: The following provision shall supplement the Trust Agreement with respect to the immunity and indemnification of the Trustee set forth in Section 17 of the Trust Agreement.

a. The Trustee shall not be liable for any act or omission while acting in good faith as set forth in Section 17 of the Trust Agreement. The Trustee assumes no responsibility for the validity or sufficiency of any instrument held under the Trust Agreement.

Section 5: The following provision shall supplement the Trust Agreement with respect to communications and instructions as set forth in the Trust Agreement.

a. All notices, requests, demands, and any other communication required under the Trust Agreement or this Addendum shall be in writing, in English, and shall be:

If to Grantor:
[Insert information.]

If to Trustee:
[Insert information.]

If to U.S. EPA
[Insert information.]

[*As applicable*:

If to FDEP:
[Insert information.], *or*

If to LDEQ:
[Insert information.]]

Section 6: The following provisions shall supplement the Trust Agreement with respect Successor Trustees as set forth in Section 13 of the Trust Agreement.

a. Resignation of the Trustee.

If the Trustee seeks to resign as Trustee, it shall provide the Grantor and the Beneficiaries at least nine (9)-months advance notice of its intent to do so. The Grantor shall thereafter take reasonable and appropriate steps to identify and reach agreement with a Successor Trustee under the parameters set forth in Paragraph 30 of Appendix 2, and shall consult with the Beneficiaries regarding the proposed Successor Trustee. The Grantor shall notify the Trustee in writing when a Successor Trustee has been selected (the "Successor Notice"), and so long as the Successor Trustee meets the requirements of Paragraph 30 of Appendix 2, the Successor Trustee shall assume the responsibilities of Trustee hereunder when: (i) it has entered into this Trust Agreement; and (ii) the funds and proprieties constituting the [*insert State name*] Phosphogypsum Trust Fund have been transferred to the Successor Trustee. Such assumption of responsibilities shall not take place prior to thirty (30) Days after the Successor Notice unless the Trustee otherwise agrees. The Trustee shall cooperate with the Grantor and the Successor Trustee in the transition of the Trust to the Successor Trustee. Notwithstanding the foregoing, in the event that the Grantor is in breach of its obligations with respect to the payment of taxes or expenses incurred by the Trust, the Trustee may provide the Grantor and Beneficiaries with notice of resignation that will be effective sixty (60) Days after the notice is sent, so long as a Successor Trustee that meets the requirements of Paragraph 30 of Appendix 2 has accepted an

appointment as Successor Trustee, or in accordance with Section 13 of the Trust Agreement the Trustee applies to a court of competent jurisdiction for the appointment of a Successor Trustee.

b. Termination of the Trustee by the Grantor

The Trustee may be terminated by the Grantor at any time, following consultation with the Beneficiaries explaining the purpose or benefit of such termination and identifying the proposed Successor Trustee, on the provision of at least ninety (90) Days written notice, except that the Trustee may be terminated upon notice in fewer than ninety (90) Days if the Grantor determines that the Trustee has engaged in a material breach of its obligations hereunder. The Grantor shall notify the Trustee in writing when a Successor Trustee that meets the requirements of Paragraph 30 of Appendix 2 has been selected, and the Successor Trustee shall assume the responsibilities of Trustee hereunder when: (i) it has entered into this Trust Agreement; and (ii) the funds and proprieties constituting the [*insert State name*] Phosphogypsum Trust Fund have been transferred to the Successor Trustee. The Trustee shall cooperate with the Grantor and the Successor Trustee in the transition of the Trust to the Successor Trustee.

Section 7: The following provisions shall supplement the Trust Agreement with respect to taxes, fees, and expenses as set forth in Section 9 of the Trust Agreement.

a. Taxes, fees, and expenses paid by the Grantor shall be funded as follows:

(1) The Trustee shall establish an interest bearing account, separate from the [*insert State name*] Phosphogypsum Trust Fund, to be used for the payment of any taxes, fees, and expenses that may be owed or incurred by the [*insert State name*] Phosphogypsum Trust Fund. This account shall be referred to as the [*insert State name*] T&E Trust Fund Account. The [*insert state name*] Phosphogypsum Trust Fund and the [*insert State name*] T&E Trust Fund Account shall be treated as separate components of the single Trust created and governed under the Trust Agreement. The [*insert State name*] T&E Trust Fund Account shall be established on the date that the [*insert State name*] Phosphogypsum Trust Fund is established pursuant to the Consent Decree.

(2) No later than November 30th of each calendar year that the [*insert State name*] Phosphogypsum Trust Fund remains in existence, the Trustee shall provide the Grantor with an itemized estimate of the fees and expenses it expects to incur during the following calendar year (the "Estimated Annual Expenses"), and by no later than December 31 of each calendar year, the Grantor shall develop an estimate of the taxes it expects the [*insert State name*] Phosphogypsum Trust Fund to owe for the income expected to be earned during the following calendar year (the "Estimated Annual Taxes"). By January 10 of the next calendar year, the Grantor shall transmit to the Trustee to be deposited into the [*insert State name*] T&E Trust Fund Account, funds in the amount of at least 105% of the sum of the Estimated Annual Taxes plus the Estimated Annual Expenses, less any funds then in the [*insert State name*] T&E Trust Fund Account in excess of the amounts needed to cover taxes and expenses for past activities.

(3) If at any time during the year, the Trustee determines that the amount in the [*insert State name*] T&E Trust Fund Account is insufficient to cover expenses for the remainder of the calendar year and taxes that are expected to be paid, it shall so notify the Grantor which shall transmit any expected deficiency to the Trustee (for deposit into the [*insert State name*] T&E Trust Fund Account) within thirty (30) Days thereafter.

(4) If prior to the filing of any tax returns by the Trustee, or the payment of any required estimated taxes, there are insufficient funds in the [*insert State name*] T&E Trust Fund Account to pay the taxes (including interest or penalties) that the [*insert State name*] Phosphogypsum Trust Fund then owes, the Grantor shall, within twenty (20) Days of receiving notice from the Trustee, transmit any expected deficiency to the Trustee (for deposit into the [*insert State name*] T&E Trust Fund Account) prior to the due date of the taxes.

(5) To cover the Trustee's expenses for the remainder of the year in which the [*insert State name*] Phosphogypsum Trust Fund is created, and the taxes that will be owed for the remainder of such year, the Grantor and Trustee shall have determined the Estimated Annual Expenses and Estimated Annual Taxes and have funded the [*insert State name*] T&E Trust Fund Account with 105% of the sum of those estimates on the date that the [*insert State name*] Phosphogypsum Trust Fund is established pursuant to the Consent Decree. The provisions of Section 7, subsection a.(2) and (3), above, shall apply for the remainder of such initial year.

(6) To the extent that the [*insert State name*] Phosphogypsum Trust Fund may owe taxes on the Fund:

(i) The Trustee shall obtain an employer identification number for the [*insert State name*] Phosphogypsum Trust Fund in accordance with applicable Treasury Regulations.

(ii) The Trustee shall timely prepare and file all tax returns as required under applicable federal, state and local law.

(iii) The Trustee shall retain the services of a certified public accounting firm (the "CPA Firm") to prepare all such tax returns, and the fees and expenses incurred by the Trustee in connection therewith shall be funded by contributions by the Grantor into the [*insert State name*] T&E Trust Fund Account. The Grantor shall timely provide the Trustee with any information reasonably requested by the Trustee for the fulfillment of the Trustee's tax filing, payment and reporting obligations. The Grantor expressly agrees that it expects and requests the Trustee to rely fully on the advice of the CPA Firm and on the tax forms and instructions the CPA Firm provides in fulfilling the Trustee's responsibilities with respect to the filing of tax returns and statements and the payment of taxes. This express agreement by the Grantor does not waive, supersede, or alter any rights of the Beneficiaries.

(7) If the Grantor is required to directly pay any taxes (including estimated taxes and interest) or penalties associated with the [*insert State name*] Phosphogypsum Trust Fund, then the Trustee shall timely provide Grantor with any information reasonably requested by the

Grantor for the fulfillment of Grantor's tax filing, payment and reporting obligations under federal, state and local laws.

(8) The Trustee shall notify the Grantor, EPA and the [*abbreviated State Agency*], by certified mail within five (5) Days if no payment if received from the Grantor for the [*insert State name*] T&E Trust Fund Account as required by the Section and if the Grantor does not provide any information that the Trustee requests so that it can perform its duties under this Trust Agreement.

b. Fees and expenses shall be funded as follows when the Grantor ceases to exist:

(1) All fees and expenses shall first be paid from any remaining funds in the [*insert State name*] T&E Trust Fund Account. In the event that are no remaining funds in the [*insert State name*] T&E Trust Fund Account, then fees and expenses shall be paid from the [*insert State name*] Phosphogypsum Trust Fund, unless otherwise directed by EPA and [*abbreviated State Agency*]. The Trustee shall notify and provide an itemized list of expenses and fees to the Beneficiaries at least thirty (30) Days prior to payment by the Trustee, or if Trustee is unable to provide thirty (30) Days in advance, then notice with the itemized list of expenses shall be provided as soon as reasonably possible prior to payment or at the time that payment is made with an explanation stating why the Beneficiaries did not receive prior notice. The Beneficiaries reserve all their rights to contest any specified expenses or fees.

Section 8: The following provisions shall supplement the Trust Agreement with respect to compensation of the Trustee as set forth in Section 12 of the Trust Agreement.

The Trustee shall receive reasonable compensation, as specified in Section 12 of the Trust Agreement, and expense reimbursement for its services under the Trust Agreement in accordance with the schedule attached hereto as Exhibit 1, which shall be paid by the Grantor.

[Insert signature lines for Trustee and Grantor]

Attachment D, Form 3

IRREVOCABLE STANDBY LETTER OF CREDIT

Regional Administrator, Region 4, U.S. Environmental Protection Agency

Director, Florida Department of Environmental Protection

Dear Sir(s) or Madam(s): We hereby establish our Irrevocable Standby Letter of Credit No. --- in your favor, at the request and for the account of [*owner's or operator's name and address*] up to the aggregate amount of [*insert amount in words*] U.S. dollars $[*insert amount in numbers*], available upon presentation by both of you of

(1) your sight draft, bearing reference to this letter of credit No. ---, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to Consent Decree [*case names/docket information for consent decrees*] entered into pursuant to the Resource Conservation and Recovery Act of 1976 as amended."

This letter of credit is effective as of [*date*] and shall expire on [*date at least 1 year later*], but such expiration date shall be automatically extended for a period of [*at least 1 year*] on [*date*] and on each successive expiration date, unless, at least 120 Days before the current expiration date, we notify both of you and [*owner's or operator's name*] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight drafts for 120 Days after the date of receipt by both of you and [*owner's or operator's name*], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the entire amount of the draft directly into the Trust Fund (Account No.___) created by the Trust Agreement entered by Mosaic Fertilizer, LLC dated ____ 2015, or as otherwise instructed by both of you, in accordance with your instructions.

[*Signature(s) and title(s) of official(s) of issuing institution*] [*Date*]

This credit is subject to [*insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"*].

U.S. Environmental Protection Agency
Regional Administrator
Region 4

Florida Department of Environmental Protection
Director

Attention: [*Specify EPA Office and State Office*]

Dear Sir(s) or Madam(s):

In accordance with Appendix 2 of Consent Decrees [*case names/docket information for consent decrees*] we have established Irrevocable Standby Letter of Credit No. _____ issued by [*name of issuing institution*] on [*issuing date*] in the amount of [*insert amount in words*] U.S. dollars ($[*insert amount in numbers*]) for the following facilities [*insert Facility name, EPA ID number, and address, and indicate if coverage is for Phosphogypsum Stack System Closure and/or Long Term Care*:

- **New Wales** (Florida) – Phosphogypsum Stack System Closure and Long Term Care
  3095 County Road 640 West
  Mulberry, FL 33860
  FLD 084 717 545

- **Bartow** (Florida) - Phosphogypsum Stack System Closure and Long Term Care
  3200 State Road South 60 W
  Bartow, FL33830
  FLD 003 952 033

- **Riverview** (Florida) - Phosphogypsum Stack System Closure and Long Term Care
  8813 Highway 41 South
  Riverview, FL 33578
  FLD 064 696 107

- **South Pierce** (Florida) - Long Term Care
  7450 County Road 630
  Mulberry, FL 33860
  FLD 092 980 150

- **Green Bay Complex** (Florida) - Long Term Care
  4390 State Road 640 West
  Bartow, FL 33830
  FLD 043 055 003]

I certify that the letter of credit provider is a federally insured financial institution. I certify that the wording of the letter of credit is identical to the wording specified in Attachment D, Form 3, of Appendix 2, of the Consent Decree [*case names/docket information for consent decree*]**.**

Sincerely,

_____
(Name)
Chief Financial Officer
Mosaic Fertilizer, LLC

Attachment D, Form 4-A

CORPORATE FINANCIAL TEST
Letter from Chief Financial Officer

Instructions: The letter from the Chief Financial Officer, as specified in Section III.A of Appendix 2 of the Consent Decree, must be worded as follows, except that instructions in the brackets are to be replaced with the relevant information and the brackets deleted.

[*Address to Regional Administrator of every Region and every State Agency Head of every State in which facilities for which financial responsibility is to be demonstrated through the corporate financial test are located*].

I am the Chief Financial Officer ("CFO") of [*insert name and address of firm*] (hereinafter, "the firm"). This letter is in support of this firm's use of the corporate financial test to demonstrate Financial Assurance for costs associated with Phosphogypsum Stack System Closure and/or Long Term Care.

[*Fill out paragraphs 1-14, below, and provide supporting documentation, when required. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated.*]

1. This firm is the owner or operator of the Facilities, listed below, for which Financial Assurance for Phosphogypsum Stack System Closure and/or Long Term Care is demonstrated through the corporate financial test specified in Section III.A of Appendix 2 of the Consent Decree [*case name/docket information for the Consent Decree*]. The current Phosphogypsum Stack System Closure and/or Long Term Care Cost Estimates covered by the corporate financial test are provided for each listed facility below in Schedule A, attached to this letter. [*Attach Schedule A. For informational purposes, see Schedule A, Example 1.*]

[*List facilities and include the EPA Identification Number, name, address, and total current Cost Estimate for Phosphogypsum Stack System Closure and/or Long Term Care for each facility.*]

2. This firm guarantees, through the Guarantee specified in Section III.A of Appendix 2 of the Consent Decree [*case name/docket information for the Consent Decree*], the Phosphogypsum Stack System Closure and/or Long Term Care of the Facilities, listed below, owned or operated by the guaranteed party. The current Cost Estimates for the Phosphogypsum Stack System Closure and/or Long Term Care so guaranteed are provided for each Facility listed below in Schedule A, attached to this letter. [*Attach Schedule A. For informational purposes, see Schedule A, Example 2.*]

[*List facilities and include the EPA Identification Number, name, address, and total current Cost Estimate for Phosphogypsum Stack System Closure and/or Long Term Care for each facility.*]

3. The firm identified above is: [*insert one or more:* (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ____ [*insert description of value received*]; or (3) engaged in the following substantial business relationship with the owner or operator ____ [*insert brief characterization of relationship*], and receiving the following value in consideration of this guarantee ____ [*insert value received*]]. *[Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter*].

4. The firm, as owner or operator or guarantor, is using a financial test or guarantee to secure the Environmental Obligations of the facilities listed in Schedule B for which financial assurance is required under programs that EPA directly operates and obligations where EPA has delegated authority to the State or approved a State's program. These obligations include, but are not limited to: liability, closure, post-closure and corrective action cost estimates for hazardous waste treatment, storage and disposal facilities under 40 C.F.R. §§ 264.101, 264.142, 264.144, 264.147, 265.142, 265.144 and 265.147; cost estimates for municipal solid waste management facilities under 40 C.F.R. §§ 258.71, 258.72 and 258.73; current plugging and abandonment cost estimates for underground injection control facilities under 40 C.F.R. § 144.62; cost estimates for underground storage tanks under 40 C.F.R. § 280.93; cost estimates for facilities handling polychlorinated biphenyls under 40 C.F.R. § 761.65; any financial assurance required under, or as part of an action under, the Comprehensive Environmental Response, Compensation, and Liability Act; and any other Environmental Obligation assured through a financial test or guarantee, excluding those costs represented in paragraphs1 and 2 listed above. The cost estimates by obligation are provided for each facility in Schedule B, attached to this letter. [*Attach Schedule B. For informational purposes, see Schedule B, Example 1*.]

A. The firm represents the total of all such Environmental Obligations in Current Dollars for the listed facilities in Schedule B of $_____ [*insert amount*], as of _____ [*insert date*].

5. Are there guarantees disclosed in accordance with FASB Interpretation No. 45 for which the firm is liable, but which are not explicitly accounted for on the balance sheet of the firm's latest completed independently audited financial statements? (Yes/No) _____

A. [*If yes:*] The firm discloses the information shown below for each such guarantee, as of the firm's latest completed fiscal year ended [*insert date*]:

i. [*The name of the entity for which the guarantee has been granted*];
ii. [*The nature of the relationship of the entity to the firm*];
iii. [*A description of the guarantee*]; and

iv. [*The fair value of the guarantee. If the fair value cannot be determined and in the alternative a range of the expected values cannot be provided, so indicate by stating "cannot be determined" with a brief explanation.*].

6. Are there asset retirement obligations, under FASB Statement No. 143 or FASB Interpretation No. 47, which are not explicitly accounted for on the balance sheet of the firm's latest completed independently audited financial statements? (Yes/No) _____

A. [*If yes*:] The firm discloses for each such obligation, a description of the obligation and a current cost estimate [*if current cost estimate is not available, and in the alternative a range of the expected values cannot be provided, so indicate by stating "cannot be determined" with a brief explanation*] in Schedule C, attached to this letter. [*Attach Schedule. For informational purposes, see Schedule C, Example 1.*]

7. Are there significant estimates and material concentrations known to management that are required to be disclosed in accordance with AICPA's SOP 94-6, Disclosure of Certain Significant Risks and Uncertainties, related to the firm's Environmental Obligations? (Yes/No) _____ [*Significant estimates are estimates as of the last completed fiscal year-end that could change materially during the up-coming fiscal year.*]

A. [*If yes:*] The firm discloses the following significant estimates and material concentrations, as of the firm's latest completed fiscal year ended [*insert date*]: _____.

8. Does the company provide post-retirement benefits other than pensions? (Yes/No): _____

A. Has the company explicitly accounted for its accrued pension and post-retirement benefits on the balance sheet of the firm's latest completed independently audited financial statements? (Yes/No) _____

B. If not, the firm discloses the following estimate, as of the firm's latest completed fiscal year ended [*insert date*]: $_____ [*insert value*]

9. Does the firm file a Form 10K with the Securities and Exchange Commission ("SEC") for the latest fiscal year? (Yes/No) _____

10. Does the firm comply with Sarbanes-Oxley Section 404? (Yes/No) _____

A. Did the firm's independent auditors' report on of the firm's internal controls identify any material weaknesses? (Yes/No)_____ [*Attach a copy of the independent auditors' report on of the company's internal controls*].

11. The fiscal year of the firm ends on [*month, day*]. [*Attach a copy of the firm's independently audited financial statements for the latest completed fiscal year.*]

A. The firm's financial statements are independently audited by an independent certified public accountant? (Yes/No) _____

B. Is the firm relying on audited consolidated financial statements. (Yes/No) _____ [*If the response is yes, please attach to this letter a list of the companies (with addresses) which are covered by the audited consolidated financial statements.*]

C. The firm has received a qualified or adverse accountant's opinion for the latest completed fiscal year ended [*insert date*]. (Yes/ No) _____ [*If response is yes, attach a copy of the accountant's opinion.*]

* * *

12. The firm represents that the figures marked with an asterisk below are:

A. Exactly as represented in the firm's independently audited, year-end financial statements (as attached). (Yes/No) _____

B. In accordance with U.S. Generally Accepted Accounting Principles (GAAP). (Yes/No) _____

C. As of the latest completed fiscal year ended [*insert date*]. (Yes/No) _____

[If one or more of the responses to paragraph 12 is no, attach a line-by-line reconciliation of each discrepancy that crosswalks the value represented in this letter to the company's independently audited year-end financial statements.]

13. The firm represents that as of the latest completed fiscal year-end [*insert date*], the Assets located in the United States in the amount of $ _____ is at least 90% of the firm's total assets. (Yes/No)

14. The firm represents that no more than sixty percent (60%) of the firm's tangible assets are in the form of one or more note receivables from one or more Related Parties. (Yes/No) _____

[*If the response to paragraph 14 is no, attach an originally signed certification by the firm's CFO as specified in Paragraph 10.e.(7)(a) of Appendix 2 of the Consent Decree [case name/docket information for the Consent Decree], together with a list of each note receivable, the name of the Related Party and a description (along with any necessary documentation) of the Related Party's financial strength and capability to meet its obligations to the firm. Attach a line-by-line reconciliation that crosswalks the value(s) represented in this letter to the company's independently audited year-end financial statements.*]

[*Fill in Alternative I if the criteria of Paragraph 10.e. of Appendix 2 (incorporating 40 C.F.R. §§ 264.143(f)(1)(i) and 264.145(f)(1)(i)) are being used. Fill in Alternative II if the criteria of Paragraph 10.e.(1) of Appendix 2 (referencing 40 C.F.R. §§ 264.143(f)(1)(ii) and 264.145(f)(1)(ii)) are being used.*]

Alternative I

1. Sum of current Cost Estimates (total of all cost estimates shown in paragraphs 1 or 2, and 4, above) $_____

*2. Total Liabilities $____

*3. Total Assets $ _____

4. Net worth [line 3 minus line 2] $____

*5. Intangible assets $_____

6. Tangible Net Worth [line 4 minus line 5] $____

*7. Current Assets $____

*8. Current Liabilities $____

9. Net working capital [line 7 minus line 8] $____

*10. Net income$_____

*11. Depreciation, depletion and amortization $____

12. Net income plus depreciation, depletion, and amortization (line 10 plus line 11) $____

*13. Total Tangible Assets located in United States (required only if less than 90% of firm's assets are located in the U.S.) $____

14. Is line 6 at least $10 million? (Yes/No) ____

15. Is line 6 at least 6 times line 1? (Yes/No) ____

16. Is line 9 at least 6 times line 1? (Yes/No) ____

17. Are at least 90% of firm's tangible assets located in the U.S.? If not, complete line 18 (Yes/No) ____

18. Is line 13 at least 6 times line 1? (Yes/No) ____

19. Is line 2 divided by line 4 less than 2.0? (Yes/No) ____

20. Is line 12 divided by line 2 greater than 0.1? (Yes/No) ____

21. Is line 7 divided by line 8 greater than 1.5? (Yes/No) ____

Alternative II

1. Sum of Updated Cost Estimates (total of all cost estimates shown in paragraphs 1 or 2, and 4 above) $_____
2. The firm's represents:
   A. A Long-Term Issuer Credit Rating with Standard and Poor's of: _____ [insert rating] as of _____ [*insert date*]. [*Attach documentation evidencing the rating*.]
   B. A long-term Corporate Family Rating with Moody's Investor Services of: _____ [insert rating] as of _____ [*insert date*]. [*Attach documentation evidencing the rating*.]

*3. Total Liabilities $____

*4. Total Assets $ _____

5. Net Worth [line 4 minus line 3] $____

*6. Intangible Assets $_____

7. Tangible Net Worth [line 5 minus line 6] $____

*8. Total Tangible Assets located in U.S. (required only if less than 90% of firm's tangible assets are located in the U.S.) $____

9. Is line 7 at least $10 million? (Yes/No) ____

10. Is line 7 at least 6 times line 1? (Yes/No) ____

11. Are at least 90% of firm's tangible assets located in the U.S.? If not, complete line 12 (Yes/No) ____

12. Is line 8 at least 6 times line 1? (Yes/No) ____

I hereby certify in my capacity as the Chief Financial Officer of the firm, based on my knowledge after reasonable due diligence, that the information included in this letter, including all attachments and exhibits, is true and accurate. I further certify in my capacity as the Chief Financial Officer of the firm, that the language of this letter is

identical to the wording specified in Appendix 2, Attachment D, Form 4-A, of the Consent Decree [*insert case name/docket information of the Consent Decree*].

Attached is a special report of procedures and findings from the firm's independent certified public accountant resulting from an agreed-upon procedures performed in accordance with the AICPA Statement on Standards for Attestation Engagements, AT Section 201 – Agreed Upon Procedures Engagements (including AICPA related attestation interpretations), as updated, that describes the procedures performed and related findings. The CPA's report discloses whether or not differences and/or discrepancies were found in the comparison of financial information disclosed in this letter (including all attachments and exhibits) with the independently audited financial statements (including attachments), as of the firm's latest completed fiscal year end [*insert date*]. Where differences or discrepancies exist between the financial information disclosed in this letter (including all attachments and exhibits) with the firm's independently audited financial statements (including attachments), the CPA's report of procedures and findings identifies and reconciles any difference or discrepancy between the values or information represented in this letter and the firm's independently audited year-end financial statements.

[Signature] _____

[Name] _____

[Title] Chief Financial Officer

[Date] _____

Schedule A: Corporate Financial Test or Corporate Guarantee Cost Estimate Information

Example A.1: Corporate Financial Test

Facility Name (EPA ID)	Activity (CL, WM-CL, LTC, WM-LTC)	Cost Estimate Current $
EPA123456789	CL	$1,000,000
EPA123456789	WM-CL	$10,000,000
EPA123456789	LTC	$100,000,000
Total		**$111,000,000**

Example A.2: Corporate Guarantee

Facility Name (EPA ID)	Activity (CL, WM-CL, LTC, WM-LTC)	Cost Estimate Current $
EPA123456789	CL	$1,000,000
EPA123456789	WM-CL	$10,000,000
EPA123456789	LTC	$100,000,000
Total		**$111,000,000**

Schedule B: Other Environmental Obligations Cost Estimate Information

Example B.1

Facility Name (EPA ID, Permit Number, or Site ID)	Statutory Obligation	Cost Estimate (Current $)
EPA123456789	CERCLA	$1,000,000
EPA123456789	SDWA (UIC)	$10,000,000
Total		**$11,000,000**

Schedule C: Asset Retirement Obligations Disclosure

Example C.1

Type of Obligation	Cost Estimate		Discount Rate (Date)	Time
	Current $	NPV $		
Property A	$1,000,000	$758,999	4.71% (May 2008)	2008-2013

Property B	$10,000,000	$4,372,445	…	2008-2013
Property C	$100,000,000	$19,118,278	…	2014-2064
Total	**$111,000,000**	**$24,249,722**		

Attachment D, Form 4-B

CORPORATE FINANCIAL TEST
Letter of the Chief Financial Officer

Instructions: The letter from the Chief Financial Officer, as specified in Section III.B of Appendix 2 of the Consent Decree, must be worded as follows, except that instructions in the brackets are to be replaced with relevant information and the brackets deleted.

[*Address to Regional Administrator of every Region and every State Agency Head of every State in which facilities for which financial responsibility is to be demonstrated through the financial test are located*.]

I am the Chief Financial Officer of [*name and address of firm*] (hereinafter, "the firm"). This letter is in support of this firm's use of the corporate financial test to demonstrate Financial Assurance for costs associated with Phosphogypsum Stack System Closure and/or Long Term Care.

[*Fill out Schedule A for paragraphs 1 or 2, paragraphs 3 through 12, and Exhibit 1. Based on the information in Schedule A for paragraph 1 or 2, paragraphs 3 through 12, and Exhibit 1, fill out paragraphs 1 or 2, 13 through 15, and Exhibit 2. If your firm has no information that belongs in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, address and Cost Estimates for Phosphogypsum Stack System Closure and/or Long Term Care*].

1. The firm is the owner or operator of the Facilities listed in Schedule A for which Financial Assurance for Phosphogypsum Stack System Closure and/or Long Term Care is demonstrated through the corporate financial test specified in Section III.B of Appendix 2 of the Consent Decree [*case name/docket information of the Consent Decree*]. [*Attach Schedule A. For informational purposes, see Schedule A, Example 1*.]

   A. The firm represents the total Phosphogypsum Stack System Closure Cost Estimate in Current Dollars for the listed facilities in Schedule A of $_____ [*insert amount*], as of _____ [*insert date*].

   B. The firm represents the total Water Management Cost Estimate associated with Phosphogypsum Stack System Closure in Current Dollars for the listed facilities in Schedule A of $_____ [*insert amount*], as of _____ [*insert date*].

   C. The firm represents the total Long Term Care Cost Estimate in Current Dollars for the listed Facilities in Schedule A of $_____ [*insert amount*], as of _____ [*insert date*].

   D. The firm represents the Net Present Value (NPV) of the total Long Term Care Cost Estimate for the listed Facilities in Schedule A as $_____ [*insert amount*], as of _____ [*insert date*].

E. The firm represents the total Water Management Cost Estimate associated with Long Term Care in Current Dollars for the listed Facilities in Schedule A of $_____ [*insert amount*], as of _____ [*insert date*].

F. The firm represents the NPV of the total Water Management Cost Estimates associated with Long Term Care for the listed Facilities in Schedule A as $_____ [*insert amount*], as of _____ [*insert date*].

2. The firm guarantees, through the Guarantee specified in Sction III.B of Appendix 2 of the Consent Decree [*case name/docket information of the Consent Decree*], the Phosphogypsum Stack System Closure and/or Long Term Care of the listed Facilities in Schedule A owned or operated by the guaranteed party. [*Attach Schedule A. For informational purposes, see Schedule A, Example 2.*]

A. The firm represents the total Phosphogypsum Stack System Closure Cost Estimate in Current Dollars for the listed Facilities in Schedule A of $_____ [*insert amount*], as of _____ [*insert date*].

B. The firm represents the total Water Management Cost Estimate associated with Phosphogypsum Stack System Closure in Current Dollars for the listed Facilities in Schedule A of $_____ [*insert amount*], as of _____ [*insert date*].

C. The firm represents the total Long Term Care Cost Estimate in Current Dollars for the listed Facilities in Schedule A of $_____ [*insert amount*], as of _____ [*insert date*].

D. The firm represents the NPV of the total Long Term Care Cost Estimate for the listed Facilities in Schedule A as $_____ [*insert amount*], as of _____ [*insert date*].

E. The firm represents the total Water Management Cost Estimate associated with Long Term Care in Current Dollars for the listed Facilities in Schedule A of $_____ [*insert amount*], as of _____ [*insert date*].

F. The firm represents the NPV of the total Water Management Cost Estimate associated with Long Term Care for the listed Facilities in Schedule A as $_____ [*insert amount*], as of _____ [*insert date*].

3. The firm represents that the NPV of the Long Term Care Cost Estimate and the Water Management Cost Estimate associated with Long Term Care, as specified in Paragraph 1.D & F or Paragraph 2.D & F, above, have been calculated in accordance with Appendix 2, Section II and the corresponding Attachments, of the Consent Decree [*case name/docket information for Consent Decree*]. [*Attach a copy of the 30-Year Treasury Constant Maturity Rate averaged for the previous twelve months using the average spot rate for each month.*]

4. The firm, as owner or operator or Guarantor, is using a financial test or guarantee to secure the Environmental Obligations of the facilities listed in Schedule B for which financial assurance is required under programs that EPA directly operates and obligations where EPA has delegated authority to the State or approved a State's program. These obligations include, but are not limited to: liability, closure, post-closure and corrective action cost estimates for hazardous waste treatment, storage and disposal facilities under 40 C.F.R. §§ 264.101, 264.142, 264.144, 264.147, 265.142, 265.144 and 265.147; cost estimates for municipal solid waste management facilities under 40 C.F.R. §§ 258.71, 258.72 and 258.73; current plugging and abandonment cost estimates for underground injection control facilities under 40 C.F.R. §144.62; cost estimates for underground storage tanks under 40 C.F.R. § 280.93; cost estimates for facilities handling polychlorinated biphenyls under 40 C.F.R. § 761.65; any financial assurance required under, or as part of an action under, the Comprehensive Environmental Response, Compensation, and Liability Act; and any other Environmental Obligation assured through a financial test or guarantee, excluding those costs represented in paragraphs 1 and 2 listed above. The cost estimates by obligation are provided for each facility in Schedule B, attached to this letter. [*Attach Schedule B. For informational purposes, see Schedule B, Example 1.*]

   A. The firm represents the total of all such Environmental Obligations in Current Dollars for the listed facilities in Schedule B of $_____, [*insert amount*] as of _____ [*insert date*].

5. The firm identified above is [*insert one or more*: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____ [*insert description of value received*]; or (3) engaged in the following substantial business relationship with the owner or operator _____ [*insert brief characterization of the relationship*] and receiving the following value in consideration of this guarantee _____ [*insert value received*]]. [*Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter*].

6. Are there guarantees disclosed in accordance with FASB Interpretation No. 45 for which the firm is liable, but which are not explicitly accounted for on the balance sheet of the firm's latest completed independently audited financial statements? (Yes/No) _____

   A. [*If yes*:] The firm discloses the information shown below for each such guarantee, as of the firm's latest completed fiscal year ended [*insert date*]:

      i. [*The name of the entity for which the guarantee has been granted*];
      ii. [*The nature of the relationship of the entity to the firm*];
      iii. [*A description of the guarantee*]; and
      iv. [*The fair value of the guarantee. If the fair value cannot be determined and in the alternative a range of the expected values cannot be provided, so indicate by stating "cannot be determined" with a brief explanation.*].

7. Are there asset retirement obligations under FASB Statement No. 143 or FASB Interpretation No. 47, which are not explicitly accounted for on the balance sheet of the firm's latest completed independently audited financial statements? (Yes/No) _____

   A. [*If yes*:] The firm discloses for each such obligation, a description of the obligation and a current cost estimate [*if current cost estimate is not available and in the alternative a range of the expected values cannot be provided, so indicate by stating "cannot be determined" with a brief explanation*], in Schedule C, attached to this letter. [*Attach Schedule C. For informational purposes, see Schedule C, Examples 1*.]

8. Are there significant estimates and material concentrations known to management that are required to be disclosed in accordance with AICPA's SOP 94-6, Disclosure of Certain Significant Risks and Uncertainties, related to the firm's Environmental Obligations? (Yes/No) _____ [*Significant estimates are estimates as of the last completed fiscal year-end that could change materially during the up-coming fiscal year.*

   A. [*If yes:*] The firm discloses the following such significant estimates and material concentrations, as of the firm's latest completed fiscal year ended [*insert date*]: _____.

9. Does the company provide post-retirement benefits other than pensions? (Yes/No) _____

   A. Has the company explicitly accounted for its accrued pension and post-retirement benefits on the balance sheet of the firm's latest completed independently audited financial statements? (Yes/No) _____

   B. If not, the firm discloses the following estimate, as of the firm's latest completed fiscal year ended [*insert date*]: $_____ [*insert value*]

10. Does the firm file a Form 10K with the Securities and Exchange Commission ("SEC") for the latest fiscal year? (Yes/No) _____

11. Does the firm comply with Sarbanes-Oxley Section 404? (Yes/No) _____

   A. Did the firm's independent auditors' report on the firm's internal controls identify any material weaknesses? (Yes/No)_____ [*Attach a copy of the independent auditors' report on the company's internal controls.*]

12. The fiscal year of the firm ends on [*month, day*]. [*Attach a copy of the firm's independently audited financial statements for the latest completed fiscal year*.]

   A. The firm's financial statements are audited by an independent certified public accountant? (Yes/No) _____

B. Is the firm relying on audited consolidated financial statements. (Yes/No) _____ [*If response is yes, attach to the letter a list of the companies (with addresses) which are covered by the audited consolidated financial statements. If no, provide a list of companies (with addresses) that make up the corporate structure.*]

C. The firm has received a qualified or adverse accountant's opinion for the latest completed fiscal year ended [*insert date*]. (Yes/ No) _____ [*If response is yes, attach a copy of the accountant's opinion.*]

* * *

13. The firm represents that the figures marked with an asterisk in Exhibit 1 are:

A. Included as represented in the firm's independently audited, year-end financial statements (as attached). (Yes/No) _____

B. In accordance with U.S. Generally Accepted Accounting Principles (GAAP). (Yes/No) _____

C. As of the latest completed fiscal year ended [*insert date*]. (Yes/No) _____

[*If one or more of the responses to paragraph 13 is no, attach a line-by-line reconciliation of each discrepancy that crosswalks the value represented in this letter to the company's independently audited year-end financial statements.*]

14. The firm represents that it has:

A. A Long-Term Issuer Credit Rating with Standard and Poor's of _____ [*insert rating*] as of _____ [*insert date*]. [*Attach documentation or certified letter from S&P, as appropriate, evidencing the rating.*]

B. A long-term Corporate Family Rating with Moody's Investor Services of _____ [*insert rating*] as of _____ [*insert date*]. [*Attach documentation or certified letter from Moody's, as appropriate, evidencing the rating.*]

C. An equivalent rating, which assesses a company's capacity to meet its long-term (greater than one (1) year) financial commitments, as they come due, from a nationally recognized statistical rating organization ("NRSRO") of _____ [*insert rating*] as of _____ [*insert date*] from _____ [*insert NRSRO*]. [*Attach documentation or certified letter from NRSRO, as appropriate, evidencing the rating.*]

15. The firm represents that no more than sixty percent (60%) of the firm's Tangible Assets (or consolidated Tangible Assets, as the case may be) are in the form of one or more note receivables from one or more Related Parties: (Yes/No) _____

[*If the response to paragraph 15 is no, attach an originally signed certification by the firm's CFO as specified in Paragraph 15.e.(6)(b) of Appendix 2 of the Consent Decree* (*case name/docket information for the Consent Decree*) *together with a list of each note receivable, the name of the Related Party and a description (along with any necessary documentation) of the Related Party's financial strength and capability to meet its obligations to the firm. Attach a line-by-line reconciliation that crosswalks the value(s) represented in this letter to the company's independently audited year-end financial statements.*]

I hereby certify in my capacity as the Chief Financial Officer of the firm, based on my best knowledge after reasonable due diligence, that the information included in this letter, including all attachments and exhibits, is true and accurate. I further certify in my capacity as the Chief Financial Officer of the firm, that the language of this letter is identical to the wording specified in Appendix 2, Attachment D, Form 4-B, of the Consent Decree [*case name/docket information for the Consent Decree*].

Attached is a special report of procedures and findings from the firm's independent certified public accountant resulting from an agreed-upon procedures performed in accordance with the AICPA Statement on Standards for Attestation Engagements, AT Section 201 – Agreed Upon Procedures Engagements (including AICPA related attestation interpretations), as updated, that describes the procedures performed and related findings. The CPA's report discloses whether or not differences and/or discrepancies were found in the comparison of financial information disclosed in this letter (including all attachments and exhibits) with the independently audited financial statements (including attachments), as of the firm's latest completed fiscal year end [insert date] and in the calculation of NPV for the Long Term Care Cost Estimate (and the associated Water Management costs) as calculated pursuant to Appendix 2, Section II and Attachments A-2 and A-3, of the Consent Decree [*case name/docket information for the Consent Decree*]. Where differences or discrepancies exist between the financial information disclosed in this letter (including all attachments and exhibits) with the firm's independently audited financial statements (including attachments), and in the calculation of NPV for Long Term Care cost estimates and the Water Management cost estimates associated with Long Term Care, the CPA's report of procedures and findings identifies and reconciles any difference or discrepancy between the values or information represented in this letter and the firm's independently audited year-end financial statements, or this letter and the NPV for the Long Term Care Cost Estimate (and the associated Water Management costs) as calculated pursuant to Appendix 2, Section II and Attachments A-2 and A-3, of the Consent Decree [*case name/docket information for the Consent Decree*].

[*Signature*] _____

[*Name*] _____

[*Title*] Chief Financial Officer

[*Date*] _____

Exhibit 1. Financial Information				
		Amount in U. S. Dollars		
Item	Description	[A] Most Recent Fiscal Year$^{(n)}$	[B[Fiscal Year$^{(n-1)}$	[C] Fiscal Year$^{(n-2)}$
1	Sum of Phosphogypsum Stack System Closure costs in Current Dollars and net present value (NPV) of Long Term Care costs (Sum of cost estimates listed in Paragraphs 1A, 1B, 1D, 1F, 2A, 2B, 2D, and 2F)			
2	Sum of cost estimates in current dollars for Environmental Obligations, not represented in Item 1 (Sum of cost estimates listed in Paragraph 4A)			
3	Sum of Items 1 and 2 above			
4	Sum of all Environmental Obligations in Current Dollars (Sum of cost estimates shown in Paragraphs 1A, 1B, 1C, 1E, 2A, 2B, 2C, 2E, and 4A)			
5	The firm's most recent S&P long-term Issuer Credit Rating, Moody's long-term Corporate Family Rating, or equivalent rating from an NRSRO (As represented in Paragraphs 13A, 13B, or 13C)			
6	Amount of funds held in all Third-party Mechanisms (e.g., trust fund, letter of credit), pursuant to this Consent Decree [*insert case name/docket information for the Consent Decree*] (Attach a copy of the Third-party Mechanism listing its current (within 10 days of the date of this letter) market value, or in the case of insurance its limit of liability, or in the case of surety bond its penal sum)			
7	Sum of Phosphogypsum Stack System Closure costs in Current Dollars and NPV of Long-Term Care costs, minus current value of			

Exhibit 1. Financial Information				
		Amount in U. S. Dollars		
Item	Description	[A] Most Recent Fiscal Year$^{(n)}$	[B[Fiscal Year$^{(n-1)}$	[C] Fiscal Year$^{(n-2)}$
	funds held in all third party financial mechanisms pursuant to the Consent Decree [*insert case name/docket information for the Consent Decree*] (Item 1 minus Item 6)			
8*	Total Liabilities			
9*	Total Assets			
10	Net Worth (Item 9 minus Item 8)			
11	Three Year Rolling Average of Total Liabilities Divided by Three-Year Rolling Average of Net Worth (Three-Year Average of Item 8, Columns [A], [B], [C] Divided by Three-Year Average of Line 10, Columns [A], [B], [C])			
12*	Intangible Assets			
13	Tangible Net Worth (Item 10 minus Item 12)			
14*	Current Assets			
15*	Current Liabilities			
16	Three Year Rolling Average of Current Assets Divided by Three-Year Rolling Average of Current Liabilities (Three-Year Average of Item 14, Columns [A], [B], [C] Divided by Three-Year Average of Item 15, Columns [A], [B], [C])			
17*	Operating Cash Flow			
18	Three Year Rolling Average of Operating Cash Flow			

Exhibit 1. Financial Information				
		Amount in U. S. Dollars		
Item	Description	[A] Most Recent Fiscal Year$^{(n)}$	[B[Fiscal Year$^{(n-1)}$	[C] Fiscal Year$^{(n-2)}$
	(Three-Year Average of Item 17, Columns [A], [B], [C])			
19*	U.S. Assets			
20	Tangible U.S. Assets			

^{n} = Most recent fiscal year.

***** = Values are as represented on the Company's independently audited financial statements.

Exhibit 2. Corporate Financial Test Criteria

Part 1. Ratings Threshold

1. Based on rating listed in Exhibit 1, Item 5, select the applicable Corporate Financial Test ("CFT") Criteria (see Schedule D, Part 1A). Note: If there is more than one rating (e.g., an S&P and Moodys rating), shall use the lowest rating to determine rating threshold in Schedule D. _____ [*insert issued rating*]

   If CFT Criteria A is identified, proceed to Line 9 below.

Part 2. Third-Party Financial Assurance Instrument

2. Percentage of current Phosphogypsum Stack System Closure costs and NPV of Long Term Care costs held in a Third-party Mechanism Pursuant to the Consent Decree (Exhibit 1, Item 6 divided by Exhibit 1, Item 1): _____ [insert percentage]

3. Is the percentage specified by Line 2 greater than or equal to the percentage threshold applicable to the Alternative identified by Line1 (and as specified in table below)? (Yes/No) _____

CFT Criteria	Percentage Threshold
A	Not applicable
B	At least 20%
C	At least 25%
D	At least 30%

Part 3. Financial Metrics Threshold

4. Is TL/NW (Exhibit 1, Item 11) less than the ratio threshold applicable to the CFT Criteria identified in Line 1 (and as specified in table below)? (Yes/No) _____

5. Is CA/CL (Exhibit 1, Item 16) greater than the ratio threshold applicable to the CFT Criteria identified in Line 1(and as specified in table below)? (Yes/No) _____

CFT Criteria	Line 4: Applicable TL/NW Ratio Threshold	Line 5: Applicable CA/CL Ratio Threshold
A	Not applicable	Not applicable
B	< 2.0	> 1.5
C	< 1.5	> 1.5
D	< 1.5	> 2.0

6. If CFT Criteria B is identified in Line 1, answer the following questions.

A. Is the 3-year rolling average for the operating cash flow (Exhibit 1, Item 18) greater than or equal to 1.5 times the sum of Phosphogypsum Stack System Closure costs in Current Dollars and NPV of Long Term Care costs minus current value of funds held in third-party instruments (Exhibit 1, Item 7)? (Yes/No) _____

B. Is the most recent fiscal year's operating cash flow (Exhibit 1, Item 17 Column A) greater than zero? (Yes/No) _____

7. If CFT Criteria C is identified by Line 1, answers the following questions.

A. Is the 3-year rolling average for the operating cash flow (Exhibit 1, Item 18) greater than or equal to 2.0 times the sum of Phosphogypsum Stack System Closure costs in Current Dollars and NPV for Long Term Care costs (in NPV) minus current value of funds held in Third-party Mechanisms (Exhibit 1, Item 7)? (Yes/No) _____

B. Is the most recent fiscal year's operating cash flow (Exhibit 1, Item 17 Column A) greater than zero? (Yes/No) _____

8. If CFT Criteria D is identified by Line 1, answer the following questions.

A. Is the most recent fiscal year's operating cash flow (Exhibit 1, Item 17, Column A) greater than or equal to 2.0 times the sum of Phosphogypsum Stack System Closure costs in Current Dollars and NPV for Long Term Care costs (in NPV) minus current value of funds held in Third-party Mechanisms (Exhibit 1, Item 7)? (Yes/No) _____

B. Is the most recent fiscal year's operating cash flow (Exhibit 1, Item 17 Column A) greater than zero? (Yes/No) _____

Part 4. Coverage Thresholds

9. Is TNW (Exhibit 1, Item 13) greater than or equal to six (6) times the sum of Phosphogypsum Stack System Closure costs in Current Dollars, NPV of Long Term Care and costs in Current Dollars for Environmental Obligations (Exhibit 1, Item 3)? (Yes/No) _____

If "Yes," proceed to Line 12 below.

10. Is Line 2 greater than or equal to 40 percent? (Yes/No) _____

10a. If "Yes," is TNW (Exhibit 1, Item 13) greater than or equal to four (4) times the sum of Phosphogypsum Stack System Closure costs in Current Dollars, NPV of Long Term Care and costs in Current Dollars for Environmental Obligations (Exhibit 1, Item 3)? (Yes/No) _____

If "Yes," proceed to Line 12.

11. Is Line 2 greater than or equal to 60 percent? (Yes/No) _____

11a. If "Yes," is TNW (Exhibit 1, Item 13) greater than or equal to two (2) times the sum of Phosphogypsum Stack System Closure costs in Current Dollars, NPV of Long Term Care and costs in Current Dollars for Environmental Obligations (Exhibit 1, Item 3)? (Yes/No) _____

12. Is TNW (Exhibit 1, Item 13) greater than or equal to $20 million? (Yes/No) ____

13. Is Tangible U.S. Assets (Exhibit 1, Item 20) greater than or equal to 90 percent of the sum of all Environmental Obligations in Current Dollars (Exhibit 1, Item 4)? (Yes/No) _____

Summary

14. Did you answer "Yes" for Lines 3, 12, and 13? (Yes/No) _____

15. Did you answer "Yes" for Lines 9, 10a, or 11a? (Yes/No) _____

16. If CFT Criteria B, did you answer "Yes" for Line 4 and "Yes" for Line 5 or Line 6A and 6B? (Yes/No) _____

17. If CFT Criteria C, did you answer "Yes" for Line 4 and "Yes" for Line 5 or Line 7A and 7B? (Yes/No) _____

18. If CFT Criteria D, did you answer "Yes" for Line, 4, Line 5, and Line 8A and 8B? (Yes/No) _____

Schedule A: Corporate Financial Test and Corporate Guarantee Cost Estimate Information

For each facility, generate a separate table for the information being provided. If information required in Schedule A is not applicable, please indicate by entering N/A.

Example A.1: Corporate Financial Test

Facility Name (EPA ID)	Activity (CL, WM-CL, LTC, WM-LTC)	Cost Estimate		Discount Rate (Date)	Time
		Current $	NPV $		
EPA123456789	CL	$1,000,000	N/A	N/A	2008-2013
EPA123456789	WM-CL	$10,000,000	N/A	N/A	2008-2013
EPA123456789	LTC	$100,000,000	$19,118,278	4.71% (May 2008)	2014-2064
Total		**$111,000,000**	**$19,118,278**		

Example A.2: Corporate Guarantee

Facility Name (EPA ID)	Activity (CL, WM-CL, LTC, WM-LTC)	Cost Estimate		Discount Rate (Date)	Time
		Current $	NPV $		
EPA987654321	CL	$1,000,000	N/A	N/A	2008-2013
EPA987654321	WM-CL	$10,000,000	N/A	N/A	2008-2013
EPA987654321	LTC	$100,000,000	$19,118,278	4.71% (May 2008)	2014-2064
Total		**$111,000,000**	**$19,118,278**		

Schedule B: Other Environmental Obligations Cost Estimate Information

Example B.1

Facility Name (EPA ID, Permit Number, or Site ID)	Statutory Obligation	Cost Estimate (Current $)
EPA123456789	CERCLA	$1,000,000
EPA987654321	SDWA (UIC)	$10,000,000

Total		**$11,000,000**

<u>Schedule C</u>: Asset Retirement Obligations Disclosure

Example C.1

Type of Obligation	Cost Estimate		Discount Rate (Date)	Time
	Current $	NPV $		
Property A	$1,000,000	$758,999	4.71% (May 2008)	2008-2013
Property B	$10,000,000	$4,372,445	…	2008-2013
Property C	$100,000,000	$19,118,278	…	2014-2064
Total	**$111,000,000**	**$24,249,722**		

Schedule D. Corporate Financial Test ("CFT") Criteria for Appendix 2, Section III.B.				
Part	**CFT Criteria A**	**CFT Criteria B**	**CFT Criteria C**	**CFT Criteria D**
1	**Ratings Threshold ***			
1A	• ≥A • ≥A2	• A-, BBB+ BBB • A3, Baa1, Baa2	• BBB-, BB+, BB • Baa3, Ba1, Ba2	• BB- • Ba3
2	**Third-Party Financial Assurance Mechanism (Trust Fund, Letter of Credit)**			
2A	None Required	• At least 20% of sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV.	• At least 25% of sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV.	• At least 30% of sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV.
3	**Financial Metrics Threshold**			
3A	None Required	• TL / NW < 2.0 (rolling)	• TL / NW < 1.5 (rolling)	• TL / NW < 1.5 (rolling)
		AND	**AND**	**AND**
3B-1	None Required	1. CA / CL > 1.5 (rolling)	1. CA / CL > 1.5 (rolling)	1. CA / CL > 2.0 (rolling)
		OR	**OR**	**AND**
3B-2	None Required	2. Operating Cash Flow ≥ 1.5 times [the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, minus the current market value of Third-Party Mechanism] (rolling)**	2. Operating Cash Flow ≥ 2.0 times [the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care In NPV, minus the current market value of Third-Party Mechanism] (rolling)**	2. Operating Cash Flow ≥ 2.0 times [the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care, minus the face value of Third-Party Mechanism] (annual)**
4	**Coverage Thresholds**			
4A-1	• TNW ≥ Six times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care, plus the sum of all other Environmental Obligations in Current Dollars.	• TNW ≥ Six times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars.	• TNW ≥ Six times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term care in NPV, plus the sum of all other Environmental Obligations in Current Dollars.	• TNW ≥ Six times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term care in NPV, plus the sum of all other Environmental Obligations in Current Dollars.
	OR	**OR**	**OR**	**OR**
4A-2	• TNW ≥ Four times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 40% in a Third-Party Mechanism.	• TNW ≥ Four times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 40% in a Third-Party Mechanism.	• TNW ≥ Four times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all Environmental Obligations in Current Dollars, plus 40% in a Third-Party Mechanism.	• TNW ≥ Four times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 40% in a Third-Party Mechanism.
	OR	**OR**	**OR**	**OR**

Schedule D. Corporate Financial Test ("CFT") Criteria for Appendix 2, Section III.B.				
Part	**CFT Criteria A**	**CFT Criteria B**	**CFT Criteria C**	**CFT Criteria D**
4A-3	• TNW ≥ Two times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 60% in a Third-Party Mechanism.	• TNW ≥ Two times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 60% in a Third-Party Mechanism.	• TNW ≥ Two times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 60% in a Third-Party Mechanism.	• TNW ≥ Two times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 60% in a Third-Party Mechanism.
	AND	**AND**	**AND**	**AND**
4B	• TNW of at least $20M	• TNW of at least $20M	• TNW of at least $20M	• TNW of at least $20M
	AND	**AND**	**AND**	**AND**
4C	• Tangible Assets located in the United States ≥ at least 90% of the sum of all Environmental Obligations in Current Dollars.	• Tangible Assets located in the United States ≥ at least 90% of the sum of all Environmental Obligations in Current Dollars.	• Tangible Assets located in the United States ≥ at least 90% of the sum of Environmental Obligations in Current Dollars.	• Tangible Assets located in the United States ≥ at least 90% of the sum of all Environmental Obligations in Current Dollars.

* Rating may consist of at least one of the following: (1) Standard & Poor's Long-Term Issuer Credit Rating; (2) Moody's long-term Corporate Family Rating; or (3) equivalent rating from a nationally recognized statistical rating organization ("NRSRO"). See Appendix 2, Section III.B, Paragraph 13.

** Cannot use the Operating Cash Flow ("OCF") financial metric to demonstrate Financial Assurance for a specific fiscal year if during that fiscal year there is a negative cash flow. See Appendix 2, Section III.B, Paragraph 15.e.(2)(c).

Attachment D, Form 4-C

Instructions: The letter from the Corporate Guarantor's Chief Financial Officer, as specified in Section VIII of Appendix 2 of the Consent Decree, must be worded as follows, except that instructions in the brackets are to be replaced with the relevant information and the brackets deleted. The CFO must provide supporting documentation, when required below. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated.

Letter from Corporate Guarantor's Chief Financial Officer

[*Address to Regional Administrator of every Region and State Agency Head of every State in which facilities for which financial responsibility is to be demonstrated through the corporate guarantee are located.*]

I am the Chief Financial Officer ("CFO") of [*insert name and address of firm*] (hereinafter, "the firm" or "this firm"). This letter is in support of this firm's use of the Corporate Guarantee to demonstrate Financial Assurance for costs associated with Phosphogypsum Stack System Closure and/or Long Term Care on behalf of [*insert name of Defendant*].[1]

I. General Information

1. This firm guarantees, through and in accordance with the Guarantee specified in Section VIII of Appendix 2 of the Florida and Louisiana Consent Decrees [*case names/docket information for each of the Consent Decrees*] ("Consent Decrees"), the Phosphogypsum Stack System Closure and/or Long Term Care of the Operating and Closing Facilities listed below, owned or operated by the guaranteed party [*insert name of Defendant*]. The [*initial or Updated Cost Estimate, as applicable, for each Facility*] for the Phosphogypsum Stack System Closure and/or Long Term Care so guaranteed are provided for each Operating and Closing Facility listed below in Schedule A, attached to this letter. [*Attach Schedule A. For informational purposes, see Schedule A, Example 1. Schedule A shall list each Facility, (including the EPA Identification Number, name, address), and designate for each Facility the initial or Updated Cost Estimate, as applicable, for Phosphogypsum Stack System Closure and/or Long Term Care for each Facility.*]

2. This firm is [*insert one of more of*: (A) The direct or higher-tier parent corporation of the owner or operator; (B) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of the Guarantee(s) (*insert description of value received*); or (C) engaged in the following Substantial Business Relationship with the owner or operator (*insert brief characterization of relationship*), and receiving the following value in consideration of Guarantees (*insert value received*). *If using option (C), attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter*].

3. In addition to providing Guarantees for Phosphogypsum Stack System Closure and Long Term Care at the Operating and Closing Facilities listed on Schedule A, this firm is using or providing a financial test or guarantee to secure the Environmental Obligations of the facilities or

[1] Unless otherwise defined in this letter, the capitalized items in this letter, including any attachments, have the meaning provided in the Consent Decrees, including Appendix 1 and 2.

sites listed in Schedule B for which Financial Assurance is required under programs that EPA directly operates and obligations under programs where EPA has delegated authority to the State or approved a State's program. The cost estimates by obligation are provided for each facility in Schedule B, attached to this letter. [*Attach Schedule B. For informational purposes, see Schedule B, Example 1.*]

A. The firm represents the total of all such Environmental Obligations in Current Dollars for the listed facilities in Schedule B of $_____ [*insert amount*], as of _____ [*insert date*].

4. Are there guarantees disclosed in accordance with FASB Interpretation No. 45[2] for which the firm is liable, but which are not explicitly accounted for on the balance sheet of the firm's latest completed Independently Audited financial statements? (Yes/No) _____

A. [*If yes:*] The firm discloses the information shown below for each such guarantee, as of the firm's latest completed fiscal year ended [*insert date*]:

i. [*The name of the entity for which the guarantee has been granted*];
ii. [*The nature of the relationship of the entity to the firm*];
iii. [*A description of the guarantee*]; and
iv. [*The fair value of the guarantee. If the fair value cannot be determined and in the alternative a range of the expected values cannot be provided, so indicate by stating "cannot be determined" with a brief explanation.*].

5. Are there asset retirement obligations, under FASB ASC 410, Asset Retirement and Environmental Obligations, which are not explicitly accounted for on the balance sheet of the firm's latest completed Independently Audited financial statements? (Yes/No) _____

A. [*If yes*:] The firm discloses for each such obligation, a description of the obligation and a current cost estimate [*If the Total Florida Cost Estimate or Total Louisiana Cost Estimate, as applicable, is not available, and in the alternative a range of the expected values cannot be provided, so indicate by stating "cannot be determined" with a brief explanation*] in Schedule C, attached to this letter. [*Attach Schedule C. For informational purposes, see Schedule C, Example 1.*]

6. Are there significant estimates and material concentrations known to management that are required to be disclosed in accordance with FASB ASC 275, Risks and Uncertainties, related to the firm's Environmental Obligations? (Yes/No) _____ [*Significant estimates are estimates as of the last completed fiscal year-end that could change materially during the up-coming fiscal year. If the answer to this question is "yes," answer 6.A and 6.B.*]

A. The firm discloses the following significant estimates and material concentrations, which are reported on the firm's latest completed Independently Audited financial

[2] FASB Interpretation 45 applies, unless otherwise superseded by Accounting Standards Codification (ASC) 460, Guarantees.

statements, as of the firm's latest completed fiscal year ended: [*insert date*] _____. [*Fill in the space provided following where the date is requested with a list identifying the section and exhibit number within the firm's latest completed Independently Audited financial statements where the information can be found. If this statement under Item 6 is not applicable, enter N/A in the space provided following where the date is requested.*]

B. The firm discloses the following significant estimates and material concentrations, which are not reported on the firm's latest completed Independently Audited financial statements, as of the firm's latest completed fiscal year ended: [*insert date*] _____. [*Provide the significant estimates and material concentrations. If this statement under Item 6 is not applicable, enter N/A in the space provided following where the date is requested.*]

7. Did the firm file a Form 10-K with the Securities and Exchange Commission ("SEC") for the latest fiscal year? (Yes/No) _____

8. Does the firm comply with the "Internal Control Evaluation and Reporting" requirements as set forth in Sarbanes-Oxley Section 404 and any accompanying regulations? (Yes/No) _____

A. Did the firm's independent auditors' report on of the firm's internal controls identify any material weaknesses? (Yes/No)_____ [*Attach a copy of the independent auditors' report on the company's internal controls, or if an exact copy of the independent report on the company's internal controls is included in the year-end audited financial statements (e.g., 10K), so include*].

9. The fiscal year of the firm ends on [*month, day*]. [*If not already provided, attach a copy of the firm's Independently Audited financial statements for the latest completed fiscal year. If the firm's Liquidity Buffer, defined as the sum of the firm's consolidated cash balances and the firm's unused committed lines of credit, falls below one billion dollars, the firm must also submit quarterly financial statements, which may be unaudited.*]

A. The firm's annual financial statements are Independently Audited by an independent Certified Public Accountant ("CPA")? (Yes/No) _____

B. The firm is using audited consolidated financial statements. (Yes/No) _____ [*If the response is yes, please attach to this letter either: (1) a list of the companies (with addresses) which are covered by the audited consolidated financial statements, or (2) a list identifying "the significant subsidiaries" by exhibit number within the firm's latest completed Independently Audited financial statements where the information can be found.*]

C. The firm received qualifications in the opinion expressed by the independent CPA on the report on examination of the audited financial statements, including but not limited to an adverse opinion, a disclaimer of opinion, or a "going concern

qualification." (Yes/No) _____ [*If the response is yes, attach to this letter, if not already included with documentation being submitted, a copy of the independent CPA's qualifications in its opinion.*]

* * *

10. The firm represents that the figures marked with an asterisk in the Reporting Information section are:

A. Exactly as represented in the firm's Independently Audited, year-end financial statements (as attached). (Yes/No) _____

B. In accordance with U.S. Generally Accepted Accounting Principles (GAAP). (Yes/No) _____

C. As of the latest completed fiscal year ended [*insert date*]. (Yes/No) _____

[*If one or more of the responses to paragraph 10 is no with respect to particular figures marked with an asterisk, the Agreed Upon Procedures Report described below shall specify whether such figures are in accord with the firm's Independently Audited financial statements (including attachments), as of the firm's latest completed fiscal year, and if they cannot be identified separately from the firm's Independently Audited Financial Statements, the firm shall provide an explanation for how the figures were calculated, unless such calculation is provided in the Agreed Upon Procedures Report. If they are not in such accord, then attach a line-by-line reconciliation of each discrepancy that crosswalks the value represented in this letter to the firm's Independently Audited year-end financial statements or list and attach referenced materials that provide requested information. This line-by-line reconciliation shall also include, as appropriate, figures represented in Reporting Information that are derived from figures marked with an asterisk.*]

11. Based on the firm's Independently Audited, fiscal year-end financial statements, the firm represents:

A. Total Assets located within the United States: $ _____ [*insert amount*]
   i. Percentage of Assets located within the United States as a proportion of the firm's total Assets: _____% [*insert percentage*]

B. Total Tangible Assets Located within the United States: $ _____ [*insert amount*]
   i. Percentage of Tangible Assets Located within the United States as a proportion of the firm's total Assets: _____% [*insert percentage*]

C. The Liquidity Buffer (the sum of the firm's consolidated cash balances and the firm's consolidated unused committed lines of credit): $_____ [*insert amount*]

[*The Agreed Upon Procedures Report described below shall specify whether the figures in Paragraph 11 are in accord with the firm's Independently Audited financial statements (including attachments), as of the firm's latest completed fiscal year, and if they cannot be identified separately, the firm shall provide an explanation for how the figures were calculated, unless such calculation is provided in the Agreed Upon Procedures Report. If they are not in such accord, then attach a line-by-line reconciliation of each discrepancy that crosswalks the value represented in this letter to the firm's Independently Audited year-end financial statements or list and attach referenced materials that provide requested information. This line-by-line reconciliation shall also include, as appropriate, figures represented in Reporting Information that are derived from figures marked with an asterisk.*]

12. The firm represents that no more than sixty percent (60%) of the firm's tangible assets are in the form of one or more note receivables from one or more Related Parties. (Yes/No) _____

[*If the response to paragraph 12 is no, attach an originally signed certification by the firm's CFO as specified in Paragraph 32.h.(2) of Appendix 2 of the Florida Consent Decree and Paragraph 31.h.(2) of the Louisiana Consent Decree, together with a list of each note receivable, the name of the Related Party and a description (along with any necessary documentation) of the Related Party's financial strength and capability to meet its obligations to the firm. Attach a line-by-line reconciliation that crosswalks the value(s) represented in this letter to the firm's Independently Audited year-end financial statements.*]

II. Reporting Information

1. Sum of current Cost Estimates (total of all Updated Cost Estimates shown in paragraphs 1 and 3 of Section I, above) $ [____]

2. The firm has a Long-Term Issuer Credit Rating[3] with Standard and Poor's of _____ [*insert rating*] as of _____ [*insert date*], and/or long-term Corporate Family Rating[4] with Moody's Investor Services of _____ [*insert rating*] as of _____ [*insert date*]. [*Attach documentation or certified letter from Standard and Poor's and Moody's, as appropriate, evidencing the rating.*]

*3. Total Liabilities $ [____]

*4. Total Assets $ [____]

*5. Intangible Assets $ [____]

*6. Current Assets $ [____]

---

[3] Standard and Poor's specifies that the Issuer Credit Ratings make a distinction between foreign currency ratings and local currency ratings. For purposes of this CFO letter, it is the Long Term Issuer Credit Rating for Local Currency that is being specified.

[4] Mosaic may provide its long-term Corporate Rating with Moody's for information purposes.

7. Tangible Assets [line 4 minus line 5] $ [____]

*8. Current Liabilities $ [____]

9. Net Working Capital [line 6 minus line 8] $ [____]

10. Net Worth [line 4 minus line 3] $ [____]

11. Tangible Net Worth [line 10 minus line 5] $ [____]

*12. Net Income (Net-Earnings attributable to Mosaic) $ [____]

*13. Depreciation, depletion, and amortization $ [____]

14. Net income plus depreciation, depletion, and amortization (line 12 plus line 13) $ [____]

[*For the figures represented in Reporting Information above marked with an asterisk, the Agreed Upon Procedures Report described below shall specify whether these figures are in accord with the firm's Independently Audited financial statements (including attachments), as of the firm's latest completed fiscal year, and if they cannot be identified separately from the firm's Independently Audited Financial Statements, the firm shall provide an explanation for how the figures were calculated, unless such calculation is provided in the Agreed Upon Procedures Report. If they are not in such accord, then attach a line-by-line reconciliation of each discrepancy that crosswalks the value represented in this letter to the firm's Independently Audited year-end financial statements or list and attach referenced materials that provide requested information. This line-by-line reconciliation shall also include, as appropriate, figures represented in Reporting Information that are derived from figures marked with an asterisk.*]

I hereby certify in my capacity as the Chief Financial Officer of the firm, based on my knowledge after reasonable due diligence, that the information included in this letter, including all attachments and exhibits, is true and accurate. I further certify in my capacity as the Chief Financial Officer of the firm, that the language of this letter is identical to the wording specified in Appendix 2, Attachment D, Form 4-C, of the Consent Decrees [*insert case names/docket information of the Consent Decrees*].

The following reports are attached:

1. An Agreed-Upon Procedures Report of procedures and findings from the firm's independent Certified Public Accountant ("CPA") resulting from an agreed-upon procedures engagement performed in accordance with the AICPA Statement on Standards for Attestation Engagements, AT Section 201 Agreed-Upon Procedures Engagements (including AICPA related attestation interpretations), as updated, that describes the procedures performed and related findings. The CPA's report on agreed-upon procedures discloses whether or not differences and/or discrepancies were found in the comparison of financial information disclosed in this letter (including all attachments and the information in the column marked with an asterisk in Schedule

C) with the Independently Audited financial statements (including attachments), as of the firm's latest completed fiscal year end [*insert date*]. Where differences or discrepancies exist between the financial information disclosed in this letter (including all attachments and exhibits) with the firm's Independently Audited year-end financial statements (including attachments), the CPA's report on agreed-upon procedures identifies and reconciles any difference or discrepancy between the values or information represented in this letter and the firm's Independently Audited year-end financial statements. The CPA's report on agreed-upon procedures shall also confirm that the firm's values represented in Section I, Paragraphs 11 and 12, and in Sections II, line items 3 and 5, are calculated correctly pursuant to the requirements under Section I, Paragraphs 11 and 12, and Section II, of this letter and are in accordance with GAAP.

2. A copy of the independent CPA report on examination of the firm's audited financial statements for the latest completed fiscal year that the firm is providing the Corporate Guarantee.

[Signature] _____

[Name] _____

[Title] Chief Financial Officer

[Date] _____

Schedule A: Corporate Guarantee Cost Estimate Information

Example A.1: Corporate Guarantee

Facility Name (EPA ID)		Cost Estimate (Current $)
EPA123456789		$1,000,000
EPA234567910		$10,000,000
EPA345678911		$100,000,000
Total		**$111,000,000**

Schedule B: Other Environmental Obligations Using a Financial Test or Guarantee Cost Estimate Information

Example B.1

Facility Name (EPA ID, Permit Number, or Site ID)	Statutory Obligation	Cost Estimate (Current $)
EPA123456789	CERCLA	$1,000,000
EPA123456789	SDWA (UIC)	$10,000,000
Total		**$11,000,000**

Schedule C: Asset Retirement Obligations Disclosure

Example C.1

Type of Obligation	Cost Estimate		Discount Rate Range	Time
	Current $	*NPV $		
Property A	$1,000,000	$758,999	4.71% - 6.18%	2008-2013
Property B	$10,000,000	$4,372,445	…	2008-2013
Property C	$100,000,000	$19,118,278	…	2014-2064
Total	**$111,000,000**	**$24,249,722**		

Attachment D, Form 5-A

CORPORATE GUARANTEE

Instructions: The Corporate Guarantee, as specified in Appendix 2 of the Consent Decree, must be worded as follows, except the instructions in the brackets are to be replaced with the relevant information, if applicable, and the brackets deleted.

Corporate Guarantee for Phosphogypsum Stack System Closure and Long Term Care [*or/and Corrective Action*]

Guarantee made this [*date*] by [*name of guaranteeing entity*], a business corporation organized under the laws of the State of [*insert name of State*], herein referred to as Guarantor. This Guarantee is made on behalf of the [*owner or operator*] of [*business address*], which is [*one of the following: "our subsidiary"; "a subsidiary of (insert name and address of common parent corporation), of which guarantor is a subsidiary"; or "an entity with which guarantor has a 'Substantial Business Relationship,'" as defined in Section I, Appendix 2, of the Consent Decree (insert citation/docket information of Consent Decree)*] to the United States Environmental Protection Agency ("EPA") and [*State*].

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for Guarantors as specified in Appendix 2 of the Consent Decree [*insert citation/docket information of Consent Decree*] ("Consent Decree" or "Decree"), as applicable.

2. [*Owner or operator*] owns or operates the following Facility(ies) covered by this Guarantee: [*List for each facility: EPA Identification Number, name, and address. Indicate for each whether Guarantee is for Phosphogypsum Stack System Closure, Long Term Care, or both Phosphogypsum Stack System Closure and Long Term Care (and/or Corrective Action*).]

3. "Initial Stack Closure Plan" and "Permanent Stack Closure Plan" [*and/or "Risk Assessment Plan," "Interim Measures Plan" and/or "Corrective Action Plan*"], as applicable, as used below refer to the plans maintained as required by the Consent Decree for the Phosphogypsum Stack System Closure and Long Term Care [*and/or Corrective Action*] of the Facility(ies) identified above.

4. For value received from [*owner or operator*], Guarantor guarantees to EPA [*and State*] that in the event that [*owner or operator*] fails to perform [*insert "Phosphogypsum Stack System Closure," "Long Term Care," or both "Phosphogypsum Stack System Closure and Long Term Care" (and/or "Corrective Action"*)]of the above Facility(ies) in accordance with the Initial Stack Closure Plan or Permanent Stack Closure Plan [*or and/or Risk Assessment Plan, Interim Measures Plan and/or Corrective Action Plan*], as applicable, the Guarantor shall do so or establish a trust fund as specified in Appendix 2 of the Consent Decree, as applicable, in the name of [*owner or operator*] in the amount of the Total [*insert State name*] Phosphogypsum Stack System Closure and Long Term Care [*and/or Corrective Action*] Cost Estimates as specified in the Consent Decree, Appendix 2.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this Guarantee, the Guarantor fails to meet the financial test criteria, Guarantor shall send within ninety (90) Days, by certified mail, notice to EPA [*and State*] as provided for in Section XIV (Notices) of the Consent Decree, the [*insert appropriate EPA Regional Administrator*], and to [*owner or operator*] that the Guarantor intends to provide alternate Financial Assurance as specified in Appendix 2 of the Consent Decree, as applicable, in the name of [*owner or operator*]. Within 120 Days after the end of such fiscal year, the Guarantor shall establish such Financial Assurance unless [*owner or operator*] has done so. Guarantor also agrees that if it determines that it no longer meets the financial test criteria, it shall notify EPA [*and State*] as provided for in Section XIV (Notices) of the Consent Decree, the [*insert appropriate EPA Regional Administrator*], and [*owner or operator*] that it intends to provide alternate Financial Assurance as specified in Appendix 2 of the Consent Decree, as applicable, in the name of [*owner or operator*]. Within thirty (30) Days after the guarantor provides notice, the Guarantor shall establish such Financial Assurance unless [*owner or operator*] has done so.

6. The Guarantor agrees to notify the EPA [*and State*] as provided for in Section III, Appendix 2 of the Consent Decree (Paragraph 10 or Paragraph 15, as applicable), and the [*insert appropriate EPA Regional Administrator*], by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within ten (10) Days after commencement of the proceeding.

7. Guarantor agrees that within thirty (30) Days after being notified by the EPA [*(or State)*] of a determination that Guarantor no longer meets the financial test criteria or that it is disallowed from continuing as a Guarantor of Phosphogypsum Stack System Closure and/or Long Term Care [*and/or Corrective Action*], it shall establish alternate Financial Assurance as specified in Appendix 2 of the Consent Decree, as applicable, in the name of [*owner or operator*] unless [*owner or operator*] has done so.

8. Guarantor agrees to remain bound under this Guarantee notwithstanding any or all of the following: amendment or modification of the Initial Stack Closure Plan or Permanent Stack Closure Plan [*and/or Risk Assessment Plan, Interim Measures Plan and/or Corrective Action Plan*], as applicable, amendment or modification of the Consent Decree, the extension or reduction of the time of performance of Phosphogypsum Stack System Closure or Long Term Care [*or Corrective Action*], or any other modification or alteration of an obligation of the owner or operator pursuant to the Consent Decree.

9. Guarantor agrees to remain bound under this Guarantee for as long as [*owner or operator*] must comply with the applicable Financial Assurance requirements of the Consent Decree, including Appendix 2 of the Decree, for the above-listed Facilit(ies), except as provided in Recital 10 of this agreement.

10. [*Insert the following language if the Guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator:*

Guarantor may terminate this Guarantee by sending notice to EPA and the State of Florida as provided for under Section XIV (Notices) of the Consent Decree, the [*insert appropriate EPA Regional Administrator*], and to [*owner or operator*], by certified mail, provided that this guarantee may not be terminated unless and until [*owner or operator*] obtains, and the EPA [*and State*] approve(s), alternate Financial Assurance for Phosphogypsum Stack System Closure and/or Long Term Care [*and/or Corrective Action*] in compliance with the Consent Decree, including Appendix 2.]

[*Insert the following language if the Guarantor is a firm qualifying as a Guarantor due to its "substantial business relationship" with its owner or operator*

Guarantor may terminate this guarantee 120 Days following the receipt of notification, through certified mail, by the EPA [*and State*] and by [*owner or operator*].]

11. Guarantor agrees that if [*owner or operator*] fails to provide alternate Financial Assurance as specified in the Consent Decree, Appendix 2, as applicable, and obtain written approval of such Financial Assurance from the EPA [*and State*] within 90 Days after a notice of cancellation by the Guarantor is received by the notificants in Recital 10, above, from Guarantor, Guarantor shall provide such alternate Financial Assurance in the name of [*owner or operator*].

12. Guarantor expressly waives notice of acceptance of this Guarantee by the EPA [*and State*] or by [*owner or operator*]. Guarantor also expressly waives notice of amendments or modifications of the Initial Stack Closure Plan or Permanent Stack Closure Plan [*and/or Risk Assessment Plan, Interim Measures Plan and/or Corrective Action Plan*], as applicable and of amendments or modifications of the Consent Decree.

I hereby certify that the wording of this Guarantee is identical to the wording required under Attachment D, Form 5-A of the Consent Decree.

Effective Date: _____

Name of Guarantor _____

Authorized signature for Guarantor _____

Name of person signing _____

Title of person signing _____

Signature of witness or notary: _____

Attachment D, Form 5-B

CORPORATE GUARANTEE

Instructions: The Corporate Guarantee for Phosphogypsum Stack System Closure and Long Term Care, as specified in Appendix 2 of the Consent Decree, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information, if applicable, and the brackets deleted.

Corporate Guarantee for Phosphogypsum Stack System Closure and Long Term Care

Guarantee made this [*date*] by The Mosaic Company, a business corporation organized under the laws of the State of Delaware, herein referred to as "Guarantor." This Guarantee is made on behalf of Mosaic Fertilizer, LLC ("Mosaic Fertilizer") of 3033 Campus Dr., Plymouth, Minnesota 55441, which is our wholly-owned subsidiary, to the United States Environmental Protection Agency ("EPA") and [*insert appropriate State designation*].

Whereas, pursuant to the Resource Conservation and Recovery Act ("RCRA"), as amended, 42 U.S.C. §§ 6901 et seq., Mosaic Fertilizer has entered into a Consent Decree with EPA and [*insert appropriate State designation*] (dated [*insert date*], Docket No. [*insert case information*]), to resolve the civil claims asserted by EPA, and [*insert appropriate State designation*] by establishing certain injunctive relief, including Financial Assurance, under the Consent Decree;[1]

Whereas, the Effective Date of the Consent Decree is defined in Section XVI (Effective Date) of the Consent Decree;

Whereas, the Consent Decree requires Mosaic Fertilizer to provide Financial Assurance to EPA and [*insert appropriate State designation*] to address Phosphogypsum Stack System Closure and Long Term Care, whenever required to do so, at the Operating and/or Closing Facilities;

Whereas, in order to provide a portion of the Financial Assurance required by the Consent Decree, Mosaic Fertilizer has agreed to provide EPA and [*insert appropriate State designation*] with a Guarantee, issued by the Guarantor, as set forth more fully in this Guarantee, below.

I. Recitals

Now therefore, in consideration of the promises contained herein and for the other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Guarantor agrees to the following:

1. Mosaic Fertilizer owns or operates the Operating and Closing Facilities identified in the Consent Decree covered by this Guarantee: [*List for each facility: EPA Identification Number,*

[1] Unless otherwise defined herein, the capitalized items in this Guarantee, including the preamble and recitals, have the meaning provided in the Consent Decree, including Appendix 1 and Appendix 2.

name, address and Cost Estimate for each Facility].

2. For value received from Mosaic Fertilizer, Guarantor guarantees to EPA and [*insert appropriate State designation*] that, in the event Mosaic Fertilizer fails to perform Phosphogypsum Stack Closure and/or Long Term Care at any or all of the Operating and/or Closing Facilities in accordance with the Initial Phosphogypsum Stack System Closure Plan or Permanent Phosphogypsum Stack System Closure Plan and other terms of the Consent Decree, whenever required to do so, the Guarantor shall do so, or shall establish alternate Financial Assurance in the name of Mosaic Fertilizer in accordance within Section III.A of Appendix 2 (except for Paragraph 10.a.(1)(c)), of the Consent Decree, in an amount at least equal to the Total [*insert State name*] Cost Estimate less the sum of: (i) the most recent value of the [*insert State name*] Phosphogypsum Trust Fund established in accordance with Appendix 2 of the Consent Decree and as represented by the Trustee in its most recent valuation statement to Grantor and (ii) the aggregate value of any other Third-Party Mechanism secured to establish Financial Assurance in accordance with Appendix 2 of the Consent Decree ("[*insert State name*] Financial Assurance Delta").

3. Guarantor shall comply with the reporting requirements of Paragraph 32.h. of Appendix 2 of the Consent Decree, including an annual Representation and Certification from the Chief Financial Officer of Guarantor stating that Guarantor has the financial resources for the next fiscal year to fund the lesser of: (i) $415 million or (ii) the Financial Assurance Delta.

4. In the event that Guarantor determines, at any time for the duration of the Guarantee, for any reason, that: (i) the Guarantor is unable to meet the terms of the Guarantee, including Recital 2; (ii) the Guarantor is unable to provide the Representation and Certification required under Recital 3 of this Guarantee; (iii) the Guarantor becomes aware of any changes in the Total Cost Estimate or the Guarantor's financial conditions that would invalidate or otherwise be inconsistent with the Representation and Certification; or (iv) the Guarantor becomes aware of any changes in the Total Cost Estimate that would invalidate or otherwise be inconsistent with the Representation and Certification, then Guarantor shall, within five (5) Days of such a determination, provide notice of such determination by certified mail to Mosaic Fertilizer, EPA and [*insert appropriate State designation*]. Such notice shall be admissible in evidence in any litigation and create a presumption that the Guarantor cannot provide the required Representation and Certification, and that the Guarantor cannot perform Phosphogypsum Stack System Closure and/or Long Term Care at the Operating and Closing Facilities or establish alternate Financial Assurance in accordance with Appendix 2 in an amount that is at least equal to the Financial Assurance Delta. The Guarantor may rebut this presumption only by clear and convincing evidence.

5. Any notice provided by Guarantor of Guarantor's inability to comply with the requirements of this Guarantee, shall include a statement of the value of the guaranteed obligations based on current Updated Cost Estimates, and the amount of financial resources that the Guarantor expects to have available for the next fiscal year either to perform Phosphogypsum Stack System Closure and/or Long Term Care activities at the Operating and Closing Facilities or to provide alternate Financial Assurance.

6. Guarantor agrees that, within thirty (30) Days after providing the notice required by Recitals 4 and 5, or after being notified by Mosaic Fertilizer, EPA, or [*insert appropriate State designation*] of a determination that the Guarantor no longer is able to meet its obligations under Recital 2 of this Guarantee or is disallowed from continuing as a Guarantor as specified in Paragraph 32.k. of Appendix 2 because the independent Certified Public Accountant has issued in the report on examination of the Guarantor's audited financial statements an adverse opinion or a disclaimer of opinion, or has failed to provide a Representation and Certification as required pursuant to Recital 3 or provided an invalid Representation and Certification, and if Mosaic Fertilizer during that time has not provided alternate Financial Assurance for the [*insert State name*] Financial Assurance Delta (including written approval by EPA and [*insert appropriate State designation*]), then Guarantor shall provide alternate Financial Assurance in accordance with Section III.A of Appendix 2 (except for Paragraph 10.a(1)(c)), in the name of Mosaic Fertilizer, in an amount at least equal to the [*insert State name*] Financial Assurance Delta. In the event that Mosaic Fertilizer invokes dispute resolution, subject to the terms set forth in Appendix 2, of a determination by EPA or [*insert appropriate State designation*], Guarantor agrees that it shall be bound by the final outcome of the dispute resolution.

7. In the event that Guarantor provides notice under Recital 4, Guarantor shall make financial resources available to Mosaic Fertilizer to meet its obligation under Paragraphs 32.j. and 32.l. of Appendix 2 of the Consent Decree to establish alternate Financial Assurance in accordance with Section III.A of Appendix 2 (except for Paragraph 10.a.(1)(c)), or to return Mosaic Fertilizer to compliance if EPA approves a compliance plan and schedule pursuant to Section VII (Temporary Non-Compliance) of Appendix 2 of the Consent Decree. Acceptance by EPA and [*insert appropriate State designation*] of any compliance plan and schedule shall not relieve The Mosaic Company of its obligations under this Corporate Guarantee.

8. In the event that EPA approves a compliance plan and schedule pursuant to Section VII (Temporary Non-Compliance) of Appendix 2 to return Mosaic Fertilizer to compliance with its Financial Assurance obligations under the Consent Decree, and such plan requires the Guarantor to undertake certain activities or provide financial resources, in addition to that specified in Recital 7 above, then Guarantor shall carry out those activities in a timely manner in accordance with the approved compliance plan and schedule.

9. The Guarantor shall notify Mosaic Fertilizer, EPA, and [*insert appropriate State designation*] by e-mail as well as by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming Guarantor as debtor, within twenty-four (24) hours after commencement of the proceeding.

10. Guarantor shall remain bound under this Guarantee notwithstanding any or all of the following: amendment or modification of the Phosphogypsum Stack System Closure Plan or Permanent Phosphogypsum Stack System Closure Plan, as applicable, amendment or modification of the Consent Decree, the extension or reduction of the time of performance of Phosphogypsum Stack System Closure or Long Term Care, or any other modification or alteration of an obligation of Mosaic Fertilizer pursuant to the Consent Decree.

11. Guarantor shall remain bound under this Guarantee for as long as Mosaic Fertilizer must comply with the applicable Financial Assurance requirements of the Consent Decree (including

appendices and attachments of the Consent Decree) for the Operating and Closing Facilities, except as provided in Recital 12 of this Guarantee.

12. Guarantor may terminate this Guarantee by sending notice of cancellation by certified mail to Mosaic Fertilizer, EPA, and [*insert appropriate State designation*], provided that Mosaic Fertilizer or the Guarantor obtains, and EPA and [*insert appropriate State designation*] approves, alternate Financial Assurance in accordance with Section III.A of Appendix 2 (except for Paragraph 10.a.(1)(c)), of the Consent Decree, in an amount at least equal to the [*insert State name*] Financial Assurance Delta. In the event that Mosaic Fertilizer fails to provide alternate Financial Assurance or obtain EPA's and [*insert appropriate State designation*] written approval of the alternate Financial Assurance, Guarantor agrees and shall provide alternate Financial Assurance in the name of Mosaic Fertilizer. This Guarantee shall not terminate unless and until EPA and [*insert appropriate State designation*] has approved the alternate Financial Assurance in writing and such approved alternate Financial Assurance is in place.

13. Guarantor expressly waives notice of acceptance of this Guarantee by EPA, [*insert appropriate State designation*], or by Mosaic Fertilizer. Guarantor also expressly waives notice of amendments or modifications of the Phosphogypsum Stack System Closure Plan and/or Permanent Phosphogypsum Stack System Closure Plan and of amendments or modifications of the Consent Decree.

14. Guarantor shall, when required to provide information regarding obligations under federal and state law that are assured through the use of a financial test or a guarantee, include the obligations under this Guarantee.

II. Representations and Affirmations

Guarantor hereby acknowledges, represents and affirms on this date of the Guarantee the following:

15. Guarantor is duly organized and validly existing under the laws of the jurisdiction of its incorporation and is qualified to do business in such jurisdiction and in each jurisdiction in which the Guarantor conducts its business.

16. Guarantor has full power and authority to enter into and execute this Guarantee. This Guarantee has been duly authorized, executed, and delivered by Guarantor.

17. This Guarantee constitutes a legal, valid, and binding obligation of Guarantor, enforceable in accordance with its terms.

18. This Guarantee may be modified by the Parties only with the approval, in the sole discretion and written consent of EPA and [*insert appropriate State designation*], and otherwise in accordance with the terms of the Consent Decree.

19. The Guarantor is prohibited from assigning, transferring, delegating, or conveying the obligations or the terms of this Guarantee to its successor, another person or entity, or a corporate affiliate, unless after notice to EPA and [*insert appropriate State designation*], EPA and [*insert appropriate State designation*], in their sole unreviewable discretion, approve the change in

Guarantor.

20. The submittals and notifications required by this Guarantee shall be done in accordance with Section XV (Notices) of the Consent Decree.

21. The Guarantor has been provided with a copy of the Consent Decree and all Appendices and has read and is familiar with the provisions of the Consent Decrees and Appendices.

22. This Guarantee and the rights and obligations of EPA and [*insert appropriate State designation*] and Guarantor shall be governed by and construed in accordance with the laws of the State of [*insert State designation*] and applicable U.S. federal law.

23. This Guarantee shall be in effect as of the Effective Date of the Consent Decree.

I hereby certify that the wording of this Guarantee is identical to the wording required under Attachment D, Form 5-B, of Appendix 2, of the Consent Decree.

Effective date: _____

Name of Guarantor _____

Authorized signature for Guarantor _____

Name of person signing _____

Title of person signing _____

Signature of witness or notary: _____

Attachment D, Form 6-A

Letter from Corporate Guarantor's Chief Financial Officer

Instructions: The letter from the Corporate Guarantor's Chief Financial Officer, as specified in Appendix 2, Section V of the Consent Decrees, must be worded as follows, except that instructions in the brackets are to be replaced with the relevant information and the brackets deleted. The CFO must provide supporting documentation, when required below. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated.

[*Address to Regional Administrator of every Region and State Agency Head of every State in which facilities for which financial responsibility is to be demonstrated through the corporate guarantee are located*].

I am the Chief Financial Officer of [*insert name and address of firm*] (hereinafter, "the firm" or "this firm"). This letter is in support of the use of the Corporate Guarantee to demonstrate Financial Assurance for liability coverage on behalf of [*insert name of Defendant*] as specified in Appendix 2, Section V of the Consent Decrees [*case names/docket information for the Consent Decrees*] ("Consent Decrees").[1]

I. General Information

1. The firm identified above guarantees, through and in accordance with the Guarantee specified in Section V of Appendix 2 of the Consent Decrees, liability coverage for both sudden and nonsudden accidental occurrences at the following Operating and Closing Facilities owned or operated by the guaranteed party, [*insert name of Defendant*], listed below in Schedule A, attached to this letter. [*Attach Schedule A. For informational purposes, see Schedule A, Example 1. Schedule A shall list each Facility, (including the EPA Identification Number, name, address), and designate for each Facility the liability coverage.*]

2. The firm identified above is the direct or higher-tier parent corporation of the owner or operator.

3. In addition to providing Guarantees for liability coverage at the Operating and Closing Facilities listed in Schedule A, this firm is using or providing a financial test or guarantee to secure the Environmental Obligations of the facilities or sites listed in Schedule B for which Financial Assurance is required under programs that EPA directly operates and obligations under programs where EPA has delegated authority to the State or approved a State's program. The cost estimates by obligation are provided for each facility in Schedule B, attached to this letter. [*Attach Schedule B. For informational purposes, see Schedule B, Example 1.*]

A. The firm represents the total of all such Environmental Obligations in Current Dollars for the listed facilities in Schedule B of $_____ [*insert amount*], as of _____ [*insert date*].

4. This firm [*insert "is required" or "is not required"*] to file a Form 10K with the Securities

[1] Unless otherwise defined in this letter, the capitalized items in this letter, including any attachments, have the meaning provided in the Consent Decrees, including Appendix 1 and 2.

and Exchange Commission (SEC) for the latest fiscal year.

5. The fiscal year of this firm ends on [*month, day*]. [*If not already provided, attach a copy of the firm's Independently Audited financial statements for the latest completed fiscal year.]*

A. The firm's annual financial statements are Independently Audited by an independent Certified Public Accountant ("CPA")? (Yes/No) _____

B. The firm is using audited consolidated financial statements. (Yes/No)_____ [*If the response is yes, please attach to this letter either: (1) a list of the companies (with addresses) which are covered by the audited consolidated financial statements, or (2) a list identifying "the significant subsidiaries" by exhibit number within the firm's latest completed Independently Audited financial statements where the information can be found.*]

C. The firm received qualifications in the opinion expressed by the independent CPA on the report on examination of the audited financial statements, including but not limited to an adverse opinion, a disclaimer of opinion or a "going concern qualification." (Yes/No) _____ [*If the response is yes, attach to this letter, if not already included with documentation being submitted, a copy of the independent CPA's qualifications in its opinion.*]

* * *

6. The firm represents that the figures marked with an asterisk in the Reporting Information Section are:

A. Exactly as represented in the firm's Independently Audited, year-end financial statements (as attached). (Yes/No) _____

B. In accordance with U.S. Generally Accepted Accounting Principles (GAAP). (Yes/No) _____

C. As of the latest completed fiscal year ended [*insert date*]. (Yes/No) _____

[*If one or more of the responses to paragraph 6 is no, with respect to particular figures marked with an asterisk, the Agreed Upon Procedures Report described below shall specify whether such figures are in accord with the firm's Independently Audited financial statements (including attachments), as of the firm's latest completed fiscal year, and if they cannot be identified separately, the firm shall provide an explanation for how the figures were calculated, unless such calculation is provided in the Agreed Upon Procedures Report. If they are not in such accord, then attach a line-by-line reconciliation of each discrepancy that crosswalks the value represented in this letter to the firm's Independently Audited year-end financial statements or list and attach referenced materials that provide requested information. This line-by-line reconciliation shall also include, as appropriate, figures represented in Reporting Information that are derived from figures marked with an asterisk.*]

II. Reporting Information for Liability Coverage for Sudden and Nonsudden Accidental Occurrences

[*Fill in Alternative I if the criteria of paragraph (f)(1)(i) of 264.147 or 265.147, as adopted by reference in Section 62-730.180, F.A.C. or the first criteria of LAC 33:V.3715.1, are used. Fill in Alternative II if the criteria of paragraph (f)(1)(ii) of 264.147 or 265.147, as adopted by reference in Section 62-730.180, or the first criteria of LAC 33:V.3715.1 are used, except as modified in Paragraph 25(c) of Appendix 2 of the Consent Decree.*]

ALTERNATIVE I

1. Amount of annual aggregate liability coverage to be demonstrated: $ [___]

*2. Current Assets: $ [___]

*3. Current Liabilities: $ [___]

4. Net working capital (line 2 minus line 3): $ [___]

*5. Total Liabilities: $ [___]

*6. Total Assets: $ [___]

*7. Intangible Assets: $ [___]

8. Net Worth (line 6 minus line 5) : $ [___]

9. Tangible Net Worth (line 8 minus line 7): $ [___]

*10. Total Assets located within the United States: $ [___]

11. Is line 9 at least $10 million? (Yes/No) _____

12. Is line 4 at least six times line 1? (Yes/No) _____

13. Is line 9 at least six times line 1? (Yes/No) _____

14. Are at least 90 percent of the firm's Assets located within the United States? (Yes/No) _____ If not, complete line 15.

15. Is line 10 at least six times line 1? (Yes/No) _____

ALTERNATIVE II

1. Amount of annual aggregate liability coverage to be demonstrated: $ [___]

2. The firm has a Long-Term Issuer Credit Rating[2] with Standard and Poor's of _____ [*insert rating*] as of _____ [*insert date*], and/or long-term Corporate Family Rating[3] with Moody's Investor Services of _____ [*insert rating*] as of _____ [*insert date*]. [*Attach documentation or certified letter from Standard and Poor's and Moody's, as appropriate, evidencing the rating*.]

*3. Total Liabilities: $ [___]

*4. Total Assets: $ [___]

*5. Intangible Assets: $ [___]

6. Net Worth (line 4 minus line 3): $ [___]

7. Tangible Net Worth (line 6 minus line 5): $ [___]

*8. Total Assets located within the United States: $ [___]

9. Is line 7 at least $ 10 million? (Yes/No) _____

10. Is line 7 at least six times line 1? (Yes/No) _____

11. Are at least 90 percent of the firm's Assets located within the United States? (Yes/No) _____ If not, complete line 12.

12. Is line 8 at least six times line 1? (Yes/No) _____

[*For the figures represented in Reporting Information above marked with an asterisk, the Agreed Upon Procedures Report described below shall specify whether these figures are in accord with the firm's Independently Audited financial statements (including attachments), as of the firm's latest completed fiscal year, and if they cannot be identified separately from the firm's Independently Audited Financial Statements, the firm shall provide an explanation for how the figures were calculated, unless such calculation is provided in the Agreed Upon Procedures Report. If they are not in such accord, then attach a line-by-line reconciliation of each discrepancy that crosswalks the value represented in this letter to the firm's Independently Audited year-end financial statements or list and attach referenced materials that provide requested information. This line-by-line reconciliation shall also include, as appropriate, figures represented in Reporting Information that are derived from figures marked with an asterisk. As the figures represented in line items Alternative I, 9, 10, and, 14 and Alternative II, 7, 8, and 11 above, are embedded within the firm's Independently Audited financial statements and cannot be identified separately from those statements, the Agreed Upon Procedures report*

[2] Standard & Poor's specifies that the Issuer Credit Ratings make a distinction between foreign currency ratings and local currency ratings. For purposes of this CFO letter, it is the Long Term Issuer Credit Rating for Local Currency that is being specified.

[3] Mosaic may provide its long-term Corporate Rating with Moody's for information purposes.

referenced below shall provide an explanation for how the figures were calculated as well as the calculations.]

I hereby certify in my capacity as the Chief Financial Officer of the firm, based on my knowledge after reasonable due diligence, that the information included in this letter, including all attachments and exhibits, is true and accurate. I further certify in my capacity as the Chief Financial Officer of the firm that the language of this letter is identical to the wording specified in Appendix 2, Attachment D, Form 6-A of the Consent Decrees.

The following reports are attached:

1. An Agreed-Upon Procedures of procedures and findings from the firm's independent Certified Public Accountant ("CPA") resulting from an agreed-upon procedures engagement performed in accordance with the AICPA Statement on Standards for Attestation Engagements, AT Section 201 - Agreed Upon Procedures Engagements (including AICPA related attestation interpretations), as updated, that describes the procedures performed and related findings. The CPA's report on agreed-upon procedures discloses whether or not differences or discrepancies were found in the comparison of financial information included in this letter with the Independently Audited financial statements (including attachments), as of the firm's latest completed fiscal year end [*insert date*]. Where differences or discrepancies exist between the financial information disclosed in this letter with the firm's Independently Audited year-end financial statements (including attachments), the CPA's report on agreed-upon procedures identifies and reconciles any difference or discrepancy between the values or information represented in this letter and the firm's Independently Audited year-end financial statements. The CPA's report on agreed-upon procedures shall also confirm that the firm's values represented in line items Alternative I, 9, 10, and 14, and Alternative II, 7, 8,and 11, are calculated correctly pursuant to the requirements under Section II of this letter and are in accordance with GAAP.

2. A copy of the independent CPA report on examination of the firm's audited financial statements for the latest completed fiscal year that the firm is providing the corporate Guarantee.

[Signature]

[Name]

[Title] Chief Financial Officer

[Date]

Schedule A: Corporate Guarantee Liability Coverage Information

Example A.1: Corporate Guarantee

Facility Name (EPA ID)	Activity (Sudden/Non-Sudden Occurrences)	Liability Coverage $
EPA123456789	Sudden	$1,000,000 per occurrence/$2,000,000 annual aggregate
EPA123456789	Non-Sudden Occurrences	$3,000,000 per occurrence/$6,000,000 annual aggregate
Total		$4,000,000 per occurrence/$8,000,000 annual aggregate

Schedule B: Other Environmental Obligations Using a Financial Test or Guarantee Cost Estimate Information

Example B.1

Facility Name (EPA ID, Permit Number, or Site ID)	Statutory Obligation	Cost Estimate (Current $)
EPA123456789	CERCLA	$1,000,000
EPA123456789	SDWA (UIC)	$10,000,000
Total		**$11,000,000**

Attachment D, Form 6-B

CORPORATE GUARANTEE FOR LIABILITY COVERAGE

Instructions: The Corporate Guarantee for liability coverage, as specified in Appendix 2 of the Consent Decree, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information, if applicable, and the brackets deleted.

Guarantee made this [*date*] by The Mosaic Company, a business corporation organized under the laws of the State of Delaware, herein referred to as "Guarantor." This Guarantee is made on behalf of Mosaic Fertilizer, LLC ("Mosaic Fertilizer") of 3033 Campus Dr., Plymouth, Minnesota 55441, which is our wholly-owned subsidiary, to any and all third parties who have sustained or may sustain bodily injury or property damage caused by sudden and/or nonsudden accidental occurrences arising from Phosphogypsum Stack System Closure and/or Long-Term Care of the Operating and Closing Facilities covered by this Guarantee.

Whereas, pursuant to the Resource Conservation and Recovery Act ("RCRA"), as amended, 42 U.S.C. §§ 6901 et seq., Mosaic Fertilizer has entered into a Consent Decree with EPA and [*insert appropriate State designation*] (dated [*insert date*], Docket No. [*insert case information*]) ("Consent Decree") to resolve the civil claims asserted by EPA, and [*insert appropriate State designation*] by establishing certain injunctive relief, including Financial Assurance, under the Consent Decree.[1]

I. Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for Guarantors as specified in 40 CFR 264.147(g), as adopted by reference in Section 62-730.180, Florida Administrative Code (F.A.C.), except as modified in Paragraph 24 and 25 of Appendix 2 of the Consent Decree.

2. Mosaic Fertilizer owns or operates the following Operating and Closing Facilities covered by this Guarantee: [*List for each facility: EPA Identification Number, name, and address.*] This corporate Guarantee satisfies RCRA third-party liability requirements for both sudden and non-sudden accidental occurrences in the above-named Operating and Closing Facilities in the amount of $4 million for each occurrence and $8 million annual aggregate.[2]

3. For value received from Mosaic Fertilizer, Guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by sudden and/or nonsudden accidental occurrences arising from Phosphogypsum Stack System Closure and/or Long Term Care of the Operating and Closing Facilities covered by this Guarantee that in the event that Mosaic Fertilizer fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by sudden and/or nonsudden accidental occurrences, arising from Phosphogypsum Stack System Closure and/or Long Term

[1] Unless otherwise defined herein, the capitalized items in this Guarantee, including the preamble and recitals, have the meaning provided in the Consent Decrees, including Appendix 1 and 2.
[2] If Guarantor is guaranteeing RCRA third-party liability coverage for Facilities owned or operated by Mosaic Fertilizer in another State, the $8 million annual aggregate covers all such Facilities guaranteed, unless such other State has different liability coverage requirements.

Care of the above-named Operating and Closing Facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the Guarantor will satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage identified above.

4. Guarantor agrees that if, at the end of any fiscal year before termination of this Guarantee, the Guarantor fails to meet the financial test criteria, Guarantor shall send within ninety (90) Days, by certified mail, notice to EPA, FDEP, and to Mosaic Fertilizer that Guarantor intends to provide alternate liability coverage as specified in Appendix 2, Section V of the Consent Decree, as applicable, in the name of Mosaic Fertilizer. Within 120 Days after the end of such fiscal year, the Guarantor shall establish such liability coverage unless Mosaic Fertilizer has done so.

5. The Guarantor agrees to notify Mosaic Fertilizer, EPA, and FDEP by e-mail as well as by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming Guarantor as debtor, within twenty-four (24) hours after commencement of the proceeding.

6. Guarantor agrees that within thirty (30) Days after being notified by EPA or FDEP of a determination that Guarantor no longer meets the financial test criteria or is disallowed from continuing as a Guarantor, Guarantor shall establish alternate liability coverage as specified in Appendix 2, Section V of the Consent Decree, in the name of Mosaic Fertilizer unless Mosaic Fertilizer has done so.

7. Guarantor agrees to remain bound under this Guarantee for so long as Mosaic Fertilizer must comply with the applicable requirements of the Consent Decree for the above-listed Operating and Closing Facilities, except as provided in Recital 8 of this agreement.

8. Guarantor may terminate this Guarantee by sending notice by certified mail to EPA, FDEP, and to Mosaic Fertilizer, provided that this Guarantee may not be terminated unless and until Mosaic Fertilizer obtains, and EPA and FDEP Secretary approves, alternate liability coverage complying with Appendix 2, Section V of the Consent Decree.

9. Guarantor hereby expressly waives notice of acceptance of this Guarantee by any party.

10. Guarantor agrees that this Guarantee is in addition to and does not affect any other responsibility or liability of the Guarantor with respect to the covered facilities.

11. Exclusions

This corporate Guarantee does not apply to:

i. Bodily injury or property damage for which Mosaic Fertilizer is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that Mosaic Fertilizer would be obligated to pay in the absence of the contract or agreement.

ii. Any obligation of Mosaic Fertilizer under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

iii. Bodily injury to:

[A] An employee of Mosaic Fertilizer arising from and in the course of, employment by Mosaic Fertilizer; or

[B] The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from and in the course of employment by Mosaic Fertilizer.

The exclusion applies:

(1) Whether Mosaic Fertilizer may be liable as an employer or in any other capacity; and

(2) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs [A] and [B].

iv. Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

v. Property damage to:

[A] Any property owned, rented, or occupied by Mosaic Fertilizer;

[B] Premises that are sold, given away or abandoned by Mosaic Fertilizer if the property damage arises out of any part of those premises;

[C] Property loaned to Mosaic Fertilizer;

[D] Personal property in the care, custody or control of Mosaic Fertilizer;

[E] That particular part of real property on which Mosaic Fertilizer or any contractors or subcontractors working directly or indirectly on behalf of Mosaic Fertilizer are performing Phosphogypsum Stack System Closure and/or Long Term Care, if the property damage arises out of these activities.

12. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents.

i. Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [*insert Principal*] and [*insert name and address of third-party claimant(s)*], hereby certify that the claim of bodily injury and/or property damage caused by a sudden or non-sudden accidental occurrence arising from the Phosphogypsum Stack System Closure and/or Long Term Care of the [*Principal's*] Operating and Closing Facilities should be paid in the amount of $ [*insert amount*].

[Signatures]

Principal

[Notary] [Date]

[Signatures]

Claimant(s)

[Notary] [Date]

ii. A valid final court order establishing a judgement against the Principal for bodily injury or property damage caused by sudden or non-sudden accidental occurrences arising from the Phosphogypsum Stack System Closure and/or Long Term Care of the Principal's Operating and Closing Facilities.

II. Representations and Affirmations

Guarantor hereby acknowledges, represents and affirms on this date of the Guarantee the following:

13. Guarantor is duly organized and validly existing under the laws of the jurisdiction of its incorporation and is qualified to do business in such jurisdiction and in each jurisdiction in which the Guarantor conducts its business.

14. Guarantor has full power and authority to enter into and execute this Guarantee. This Guarantee has been duly authorized, executed and delivered by Guarantor.

15. This Guarantee constitutes a legal, valid and binding obligation of Guarantor, enforceable in accordance with its terms.

16. This Guarantee may be modified by the Parties only with the approval, in the sole discretion and written consent of the EPA and FDEP, and otherwise in accordance with the terms of the Consent Decree.

17. The Guarantor is prohibited from assigning, transferring, delegating, or conveying the obligations or the terms of this Guarantee to its successor, another person or entity, or a corporate affiliate, unless after notice to EPA and FDEP, EPA and FDEP, in their sole unreviewable

discretion, approve the change in Guarantor.

18. The submittals and notifications required by this Guarantee shall be done in accordance with Section XV (Notices) of the Consent Decree.

19. The Guarantor has been provided with a copy of the Consent Decree and all Appendices and has read and is familiar with the provisions of the Consent Decrees and Appendices.

20. This Guarantee and the rights and obligations of EPA and FDEP and Guarantor shall be governed by and construed in accordance with the laws of the State of Florida and applicable U.S. federal law.

I hereby certify that the wording of this Guarantee is identical to the wording required under Attachment D, Form 6-B of Appendix 2 of the Consent Decree.

Effective Date: _____

Name of Guarantor _____

Authorized Signature for Guarantor _____

Name of Person Signing _____

Title of Person Signing _____

Signature of Witness or Notary: _____

Attachment E

Corporate Financial Test ("CFT") Criteria for Appendix 2, Section III.B				
Part	**CFT Criteria A**	**CFT Criteria B**	**CFT Criteria C**	**CFT Criteria D**
1	**Ratings Threshold ***			
1A	• ≥A • ≥A2	• A-, BBB+ BBB • A3, Baa1, Baa2	• BBB-, BB+, BB • Baa3, Ba1, Ba2	• BB- • Ba3
2	**Third-Party Financial Assurance Mechanism (Trust Fund, Letter of Credit)**			
2A	None Required	• At least 20% of sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV.	• At least 25% of sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV.	• At least 30% of sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV.
3	**Financial Metrics Threshold**			
3A	None Required	• TL / NW < 2.0 (rolling)	• TL / NW < 1.5 (rolling)	• TL / NW < 1.5 (rolling)
		AND	**AND**	**AND**
3B-1	None Required	1. CA / CL > 1.5 (rolling)	1. CA / CL > 1.5 (rolling)	1. CA / CL > 2.0 (rolling)
		OR	**OR**	**AND**
3B-2	None Required	2. Operating Cash Flow ≥ 1.5 times [the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, minus the current market value of Third-Party Mechanism] (rolling)**	2. Operating Cash Flow ≥ 2.0 times [the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care In NPV, minus the current market value of Third-Party Mechanism] (rolling)**	2. Operating Cash Flow ≥ 2.0 times [the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care, minus the face value of Third-Party Mechanism] (annual)**
4	**Coverage Thresholds**			
4A-1	• TNW ≥ Six times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care, plus the sum of all other Environmental Obligations in Current Dollars.	• TNW ≥ Six times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars.	• TNW ≥ Six times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term care in NPV, plus the sum of all other Environmental Obligations in Current Dollars.	• TNW ≥ Six times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term care in NPV, plus the sum of all other Environmental Obligations in Current Dollars.
	OR	**OR**	**OR**	**OR**
4A-2	• TNW ≥ Four times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 40% in a Third-Party Mechanism.	• TNW ≥ Four times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 40% in a Third-Party Mechanism.	• TNW ≥ Four times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all Environmental Obligations in Current Dollars, plus 40% in a Third-Party Mechanism.	• TNW ≥ Four times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 40% in a Third-Party Mechanism.
	OR	**OR**	**OR**	**OR**

4A-3	• TNW ≥ Two times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 60% in a Third-Party Mechanism.	• TNW ≥ Two times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 60% in a Third-Party Mechanism.	• TNW ≥ Two times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 60% in a Third-Party Mechanism.	• TNW ≥ Two times the sum of total costs for Phosphogypsum Stack System Closure in Current Dollars and Long Term Care in NPV, plus the sum of all other Environmental Obligations in Current Dollars, plus 60% in a Third-Party Mechanism.
	AND	**AND**	**AND**	**AND**
4B	• TNW of at least $20M	• TNW of at least $20M	• TNW of at least $20M	• TNW of at least $20M
	AND	**AND**	**AND**	**AND**
4C	• Tangible Assets located in the United States ≥ at least 90% of the sum of all Environmental Obligations in Current Dollars.	• Tangible Assets located in the United States ≥ at least 90% of the sum of all Environmental Obligations in Current Dollars.	• Tangible Assets located in the United States ≥ at least 90% of the sum of Environmental Obligations in Current Dollars.	• Tangible Assets located in the United States ≥ at least 90% of the sum of all Environmental Obligations in Current Dollars.

* Rating shall consist of at least one of the following: (1) Standard & Poor's Long-Term Issuer Credit Rating; (2) Moody's long-term Corporate Family Rating; or (3) equivalent rating from a nationally recognized statistical rating organization ("NRSRO"). See Appendix 2, Section III.B, Paragraph 13.

** Cannot use the Operating Cash Flow ("OCF") financial metric to demonstrate Financial Assurance for a specific fiscal year if during that fiscal year there is a negative cash flow. See Appendix 2, Section III.B, Paragraph 15.e.(2)(b).

Attachment F

Attachment F

The information contained in these Figures facilitates the execution of the requirements found in Paragraph 29.b., Appendix 2, of the Consent Decree. Nothing in these Figures shall be construed to: (1) limit, alter, or supersede the permitting and approval authorities of the State; or (2) commit Mosaic to construct the Planned Expansion or intermediate liners depicted herein.

Information contained within this Attachment has been redacted as it is considered Confidential Business Information. An un-redacted version of this Attachment is filed under Seal with the Court.

Attachment F: Bartow Facility

Figure 1: Configuration of the currently permitted Phosphogypsum Stack System.

Figure 2: Configuration of the Phosphogypsum Stack System with the proposed lateral expansion ("Planned Expansion").

Figure 3: Cross-section of the Phosphogypsum Stack System with the proposed lateral expansion.

Note: The Planned Expansion is the Lateral Expansion and the LSP so noted Figure 2 of this Attachment.

Figure 1 - Bartow

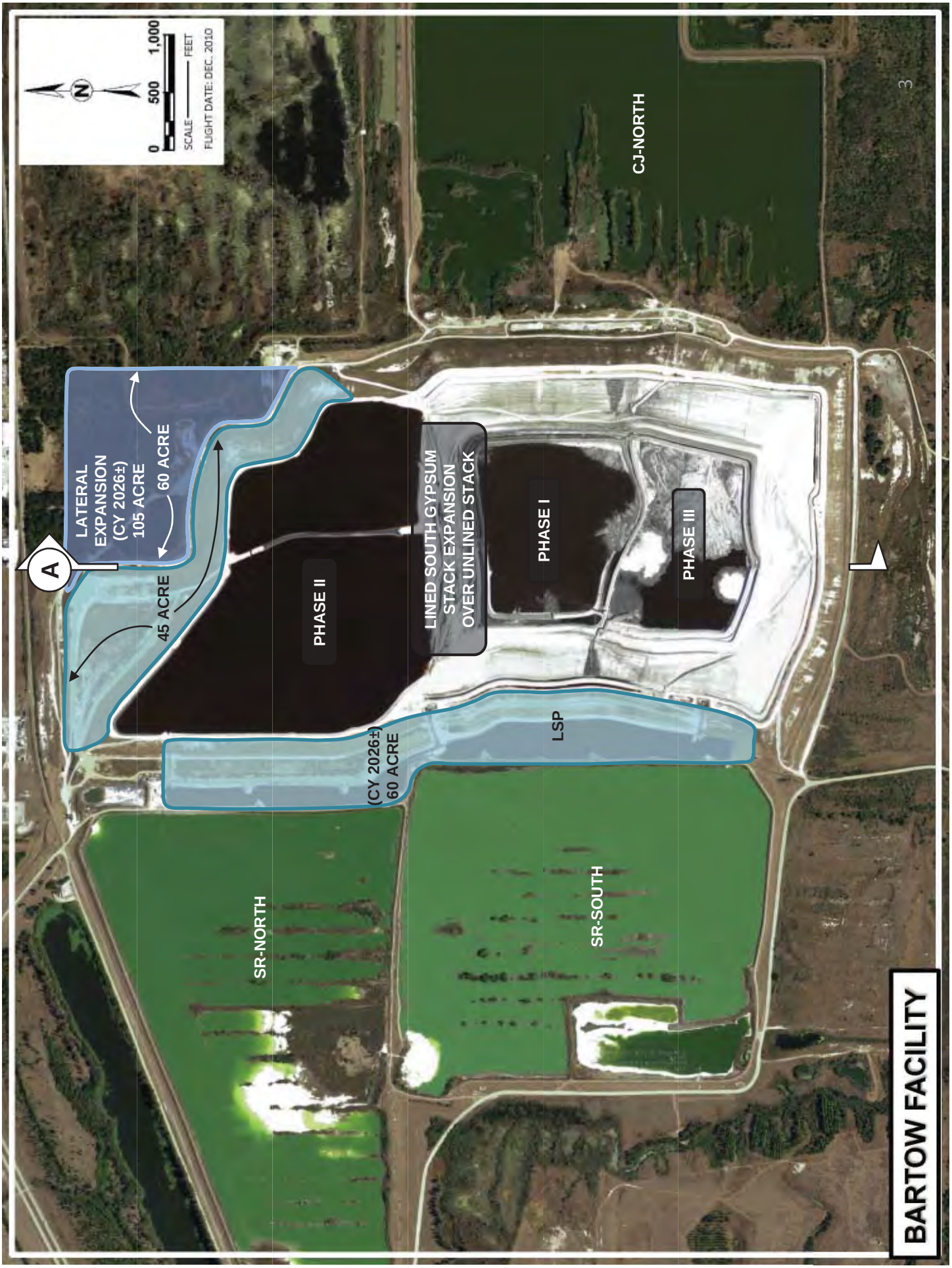
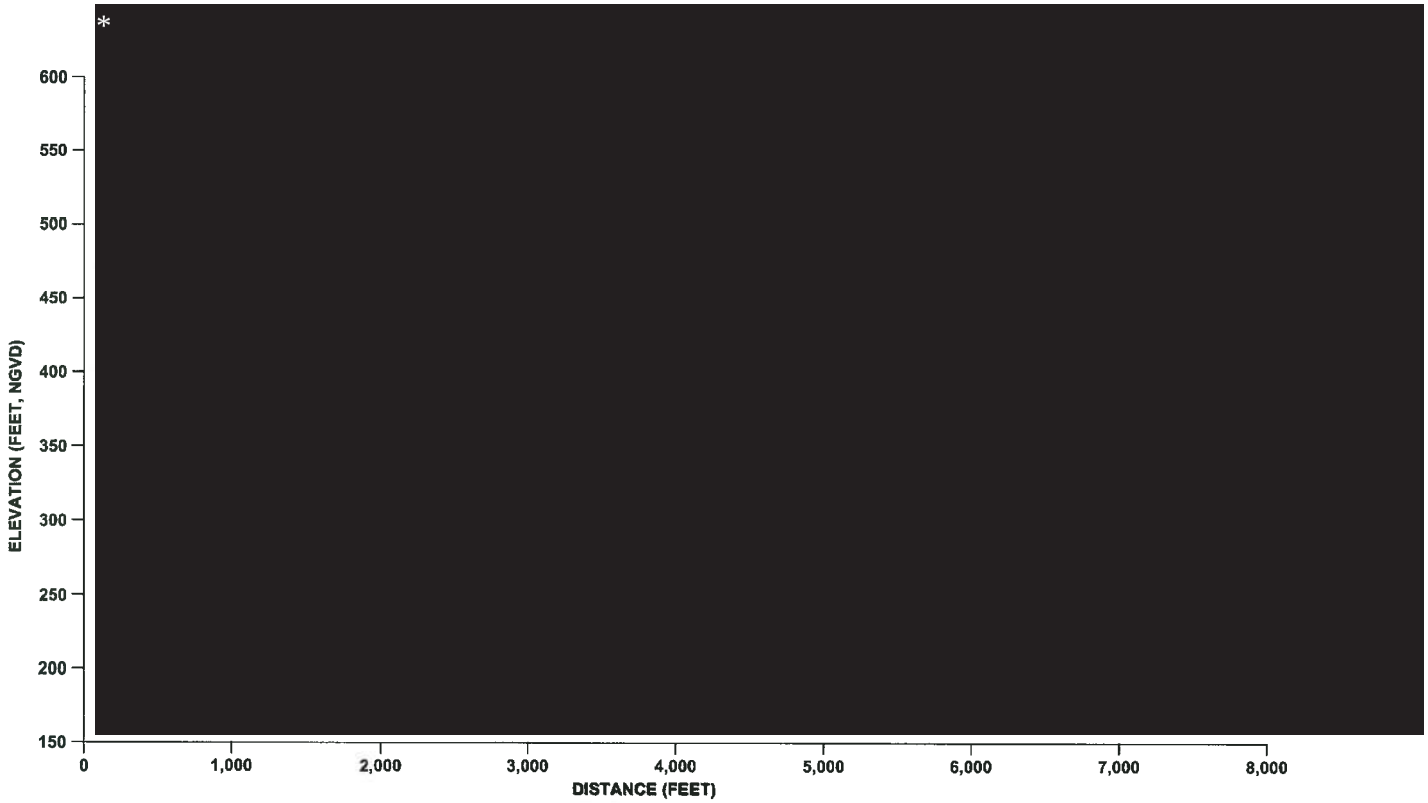


Figure 2 - Bartow

Figure 3 - Bartow



** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

The planned changes or expansions include dates when construction is currently estimated to begin. These dates are subject to change based on numerous factors, including years for attaining intermediate stack elevations and reaching terminal stack elevations, changes in market conditions, changes in production rates and Mosaic's business plans, and changes to Mosaic's long–term operating plans for the Facilities. In any event, activation of the planned changes or expansions will likely occur approximately 2 years after the beginning of construction.

The planned changes or expansions also include Mosaic's best estimate of the locations, area, and acreage for each planned change or expansion. These estimates are based on Mosaic's projected long–term operating plans and projected availability of rock sources for each Facility. The acreages for planned expansions are based upon either: (1) the lined area and area of surrounding perimeter containment dikes for lateral expansions beyond the existing phosphogypsum stack system footprint; or (2) lined areas atop existing stack surfaces for lateral expansions contained within the existing phosphogypsum stack system.

NORTH-SOUTH CROSS SECTION *
[redacted]

BARTOW FACILITY

Attachment F: New Wales Facility

Figure 1: Configuration of the currently permitted Phosphogypsum Stack System.

Figure 2: Configuration of the Phosphogypsum Stack System with the proposed lateral expansion ("Planned Expansion").

Figure 3: Cross-section of the Phosphogypsum Stack System with the proposed lateral expansion.

Note: The Planned Expansion is the Phase III and Phase IV so noted in Figure 2 of this Attachment.

Figure 1 - New Wales

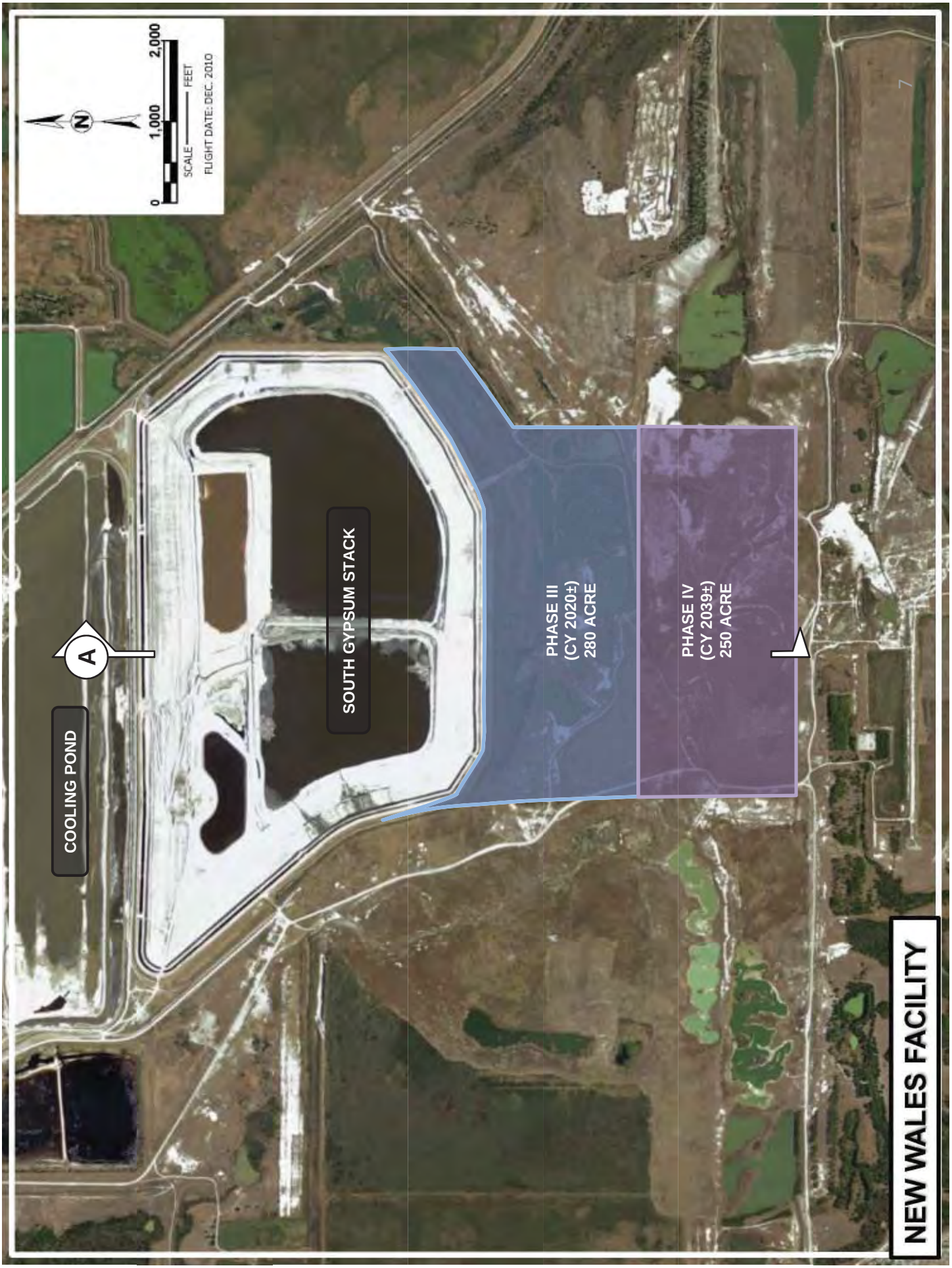
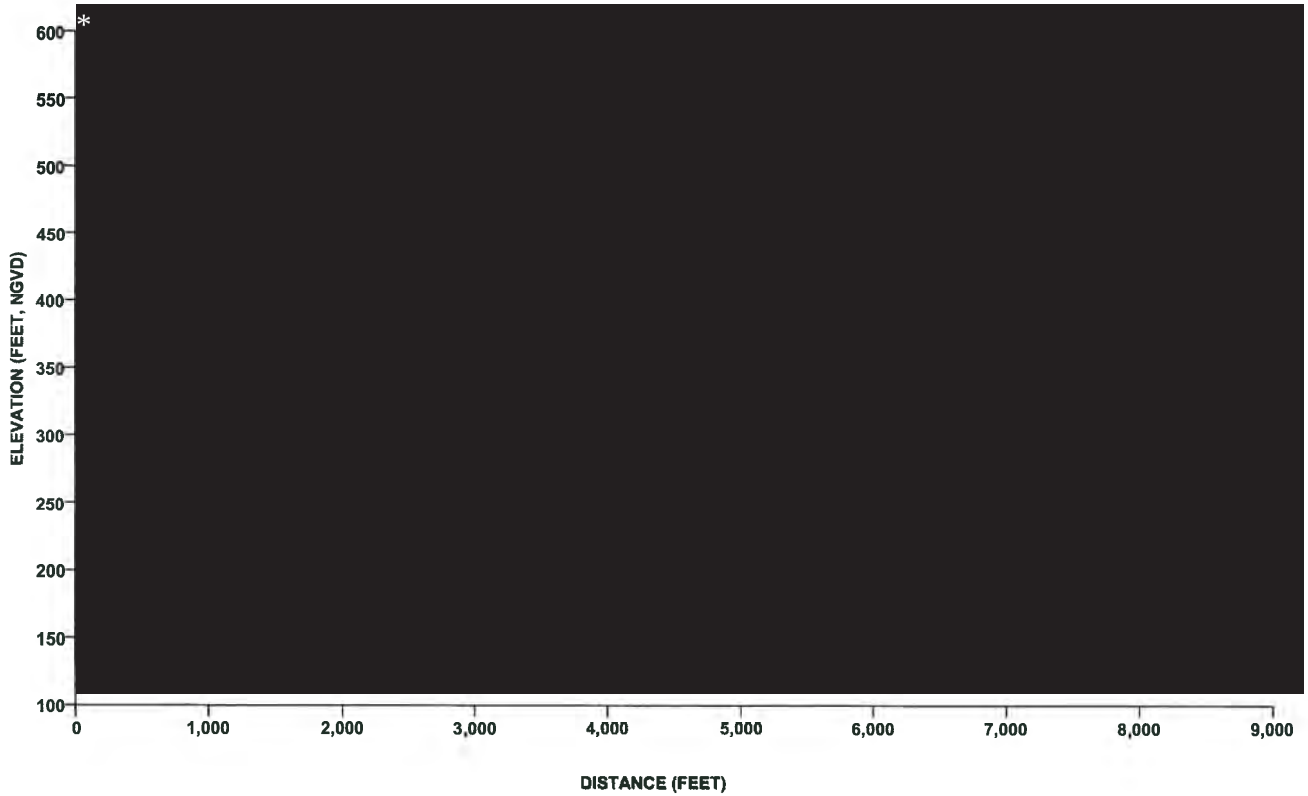


Figure 2 - New Wales

Figure 3 - New Wales



** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

The planned changes or expansions include dates when construction is currently estimated to begin. These dates are subject to change based on numerous factors, including years for attaining intermediate stack elevations and reaching terminal stack elevations, changes in market conditions, changes in production rates and Mosaic's business plans, and changes to Mosaic's long–term operating plans for the Facilities. In any event, activation of the planned changes or expansions will likely occur approximately 2 years after the beginning of construction.

The planned changes or expansions also include Mosaic's best estimate of the locations, area, and acreage for each planned change or expansion. These estimates are based on Mosaic's projected long–term operating plans and projected availability of rock sources for each Facility. The acreages for planned expansions are based upon either: (1) the lined area and area of surrounding perimeter containment dikes for lateral expansions beyond the existing phosphogypsum stack system footprint; or (2) lined areas atop existing stack surfaces for lateral expansions contained within the existing phosphogypsum stack system.

NORTH-SOUTH CROSS SECTION*
*

NEW WALES FACILITY

T:\Corporate\09\09-13-0092X\NEW WALES FACILITY_CURRENT SHEET SET\6 NORTH-SOUTH CROSS SECTION *dwg 2015/09/22 7:30 PM, Clemons, Richard

Attachment F: Riverview Facility

Figure 1: Configuration of the currently permitted Phosphogypsum Stack System.

Figure 2: Configuration of the Phosphogypsum Stack System with the proposed lateral expansion ("Planned Expansion").

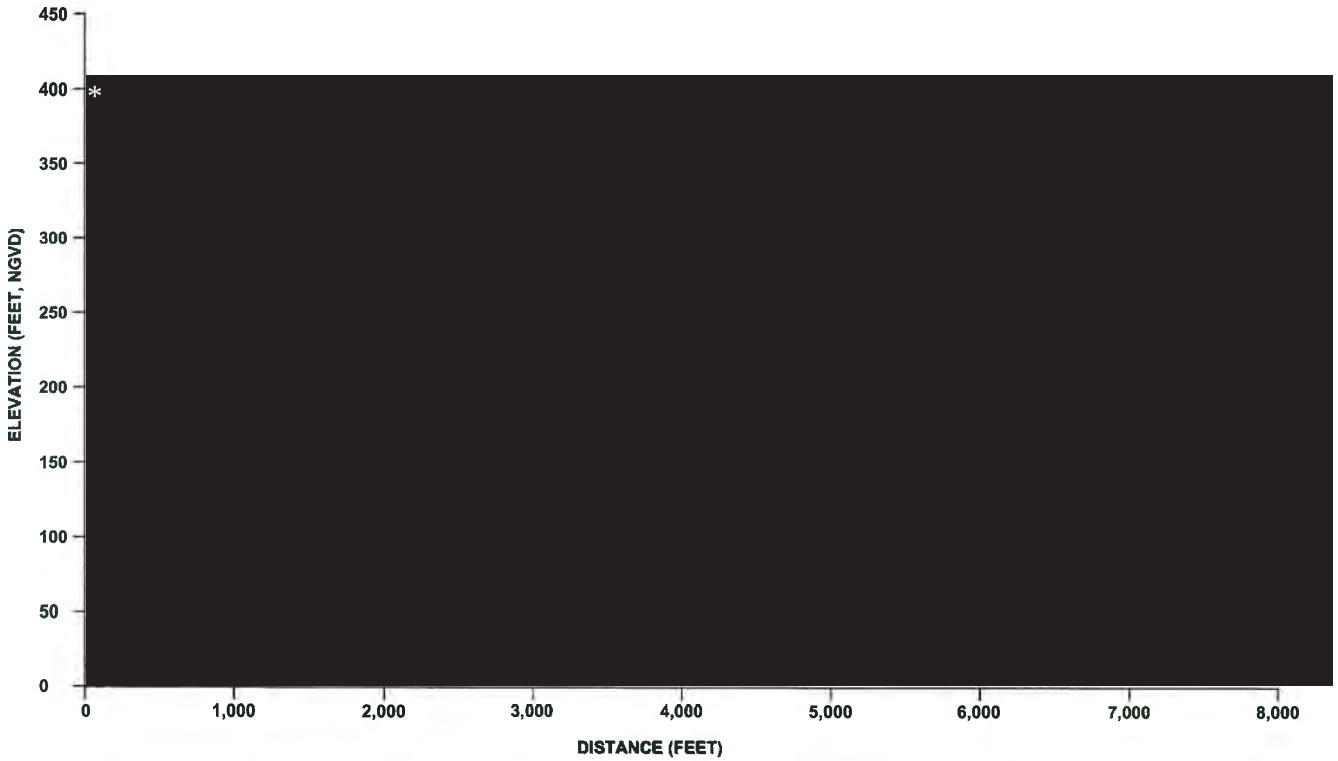
Figure 3: Cross-section of the Phosphogypsum Stack System with the proposed lateral expansion.

Note: The Planned Expansion will occur at the location of the Lined Cooling Pond so noted on Figure 2 of this Attachment.

Figure 1 - Riverview

Figure 2 - Riverview

Figure 3 - Riverview



** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

The planned changes or expansions include dates when construction is currently estimated to begin. These dates are subject to change based on numerous factors, including years for attaining intermediate stack elevations and reaching terminal stack elevations, changes in market conditions, changes in production rates and Mosaic's business plans, and changes to Mosaic's long–term operating plans for the Facilities. In any event, activation of the planned changes or expansions will likely occur approximately 2 years after the beginning of construction.

The planned changes or expansions also include Mosaic's best estimate of the locations, area, and acreage for each planned change or expansion. These estimates are based on Mosaic's projected long–term operating plans and projected availability of rock sources for each Facility. The acreages for planned expansions are based upon either: (1) the lined area and area of surrounding perimeter containment dikes for lateral expansions beyond the existing phosphogypsum stack system footprint; or (2) lined areas atop existing stack surfaces for lateral expansions contained within the existing phosphogypsum stack system.

NORTH-SOUTH CROSS SECTION *

*

RIVERVIEW FACILITY

I:\Corporate\09\09-13-0092X\GYPS VOLUME FIGURES\RIVERVIEW_Current Sheet Set\FIGURE 6 NORTH-SOUTH CROSS SECTION dwg 2015/09/22 7:02 PM, Clemons, Richard

Attachment G

Attachment G

The information contained in the Tables and Figures facilitates the execution of the requirements found in Paragraph 29.b., Appendix 2, of the Consent Decree. Nothing in these Figures shall be construed to: (1) limit, alter, or supersede the permitting and approval authorities of the State; or
(2) commit Mosaic to construct the Planned Expansion or intermediate liners depicted herein.

Attachment G: Baseline

Table – Total Phosphogypsum Volumes and Total Future Closure Areas for Paragraph 29.b.(2)(a)

Table – Proposed Future Intermediate Liner for Paragraph 29.b.(3)(a)

Table – Summary of Baseline Phosphogypsum Stack Volumes and Closure Areas for Bartow Facility and Regional Holding Pond

Table – Summary of Baseline Phosphogypsum Stack Volumes and Closure Areas for New Wales Facility

Table – Summary of Baseline Phosphogypsum Stack Volumes and Closure Areas for Riverview Facility

Attachment G: Updated

Table – Total Phosphogypsum Volumes and Total Future Closure Area at Determination Date Prior to Lateral Expansion for Paragraph 29.b.(2)(a) – Bartow Facility

Table – Total Phosphogypsum Volumes and Total Future Closure Area at Determination Date Prior to Lateral Expansion for Paragraph 29.b.(2)(a) – New Wales Facility

Table – Total Phosphogypsum Volumes and Total Future Closure Area at Determination Date Prior to Lateral Expansion for Paragraph 29.b.(2)(a) – Riverview Facility

Table – Summary of Updated Phosphogypsum Stack Volumes and Closure Areas for Bartow Facility and Regional Holding Pond

Table – Summary of Updated Phosphogypsum Stack Volumes and Closure Areas for New Wales Facility

Table – Summary of Updated Phosphogypsum Stack Volumes and Closure Areas for Riverview Facility

Figures

Bartow Facility: Figures 1-8

New Wales Facility: Figures 1-6

Riverview Facility: Figures 1-6

Information contained within this Attachment has been redacted as it is considered Confidential Business Information. An un-redacted version of this Attachment is filed with the Court under Seal.

Attachment G: Baseline

Attachment G: Baseline

TOTAL PHOSPHOGYPSUM VOLUMES AND TOTAL FUTURE CLOSURE AREAS FOR PARAGRAPH 29.b(2)(a)

Facility	Phosphogypsum Volume (acre-feet)			Future Closure Area (acre)		
	Existing Permitted Phosphogypsum Volume	Planned Future Expansion Phosphogypsum Volume	**Total Phosphogypsum Volume**	Existing Permitted Future Closure Area	Planned Future Expansion Closure Area	**Total Future Closure Area**
Bartow	* [redacted]					
New Wales						
Riverview						

PROPOSED FUTURE INTERMEDIATE LINERS FOR PARAGRAPH 29.b(3)(a)

Facility	Phosphogypsum Stack Component Planned to Receive Future Intermediate Liner	Future Expansion Component Triggering Revision to Total Phosphogypsum Volume if Intermediate Liner is not Installed as Planned	Average Elevation at which Future Intermediate Liner is to be Installed (feet, NGVD)	**Phosphogypsum Volume to be Added if Intermediate Liner is not Installed as Planned (acre-feet)**
Bartow	South Stack	Lateral Expansion	* [redacted]	
New Wales	Phase I & II Stack & Phase III Expansion	Phase IV Expansion		
Riverview	Current Expansion Stack	Additional Expansion into Cooling Pond		

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09/23/15

** = Portions of this table have been omitted pursuant to a request for confidential treatment. An unredacted version of this table has been filed separately.*

SUMMARY OF BASELINE PHOSPHOGYPSUM STACK VOLUMES AND CLOSURE AREAS FOR BARTOW FACILITY & REGIONAL HOLDING POND

Facility	Closure Area Criteria							Phosphogypsum Volume Criteria						
	Area (acres)							Phosphogypsum Stack Volume (acre-feet)						
	Stack System Total Area	Total Closure Area [A_t]	Components of Total Closure Area [2]					Phosphogypsum Volume Below Future Intermediate Liner	Phosphogypsum Volume In All Other Portions of Stack System	Total Phosphogypsum Volume [$V_t = V_o + V_e$]	Components of Total Phosphogypsum Volume			
			Existing Permitted Areas		Future Expansion Closure Area [A_e]	Total Future Closure Area $A_{ft}=[A_f + A_e]$	Individual Components				Individual Components	South Stack Cumulative Volume	Existing Permitted Phosphogypsum Volume [V_o]	Future Expansion Phosphogypsum Volume [V_e]
			Existing Permanently Closed Area [A_o]	Future Closure Area [A_f]										
Bartow	*													
			South Phosphogypsum Stack System		South Gypsum Stack		*				*		Closed North Stack [Figure 4] [8]	
					Booster Pump Area								South Gypsum Stack to El. 510' [Figure 5]	
			North Phosphogypsum Stack System		Cooling Pond R-3								South Gypsum Stack Expansion [Figure 6]	
					Cooling Pond R-5									
					Cooling Pond R-6									
					Cooling Pond R-7									
					Auxiliary Holding Ponds									
					R2 Canal Upland Area									
			Regional Holding Pond											
*														

By: AHR/tsi
Date: 09/22/15
Rev.: 6

** Portions of this table have been omitted pursuant to a request for confidential treatment. An unredacted version of this table has been filed separately.*

SUMMARY OF BASELINE PHOSPHOGYPSUM STACK VOLUMES AND CLOSURE AREAS FOR NEW WALES FACILITY

Facility	Closure Area Criteria							Phosphogypsum Volume Criteria						
	Area (acres)							Phosphogypsum Stack Volume (acre-feet)						
	Stack System Total Area	Total Closure Area [A_t]	Components of Total Closure Area [2]					Phosphogypsum Volume Below Future Intermediate Liner	Phosphogypsum Volume in All Other Portions of Stack System	Total Phosphogypsum Volume [$V_t = V_o + V_e$]	Components of Total Phosphogypsum Volume			
			Existing Permitted Areas		Future Expansion Closure Area [A_e]	Total Future Closure Area A_{ft}=[A_f + A_e]	Individual Components				Individual Components	South Stack Cumulative Volume	Existing Permitted Phosphogypsum Volume [V_o]	Future Expansion Phosphogypsum Volume [V_e]
			Existing Permanently Closed Area [A_o]	Future Closure Area [A_f]										
New Wales	*	[redacted]												
					Northeast Sump		*				*		Closed North Stack [Figure 2] [7]	
					LESP-3								South Stack Phase I/II to El. 520' [Figure 3]	
					NW Early Closure								South Stack Phase III to El. 520' [Figure 4]	
					LESP-1 & LESP-2								South Stack Phase IV to El. 520' [Figure 5]	
					Auxiliary Holding Pond									
					Cooling Pond & Channels									
					Cooling Pond Upland Areas									
					South Stack									
* [redacted]														

By: TSI
Date: 09/23/15
Rev.: 6

Portions of this table have been omitted pursuant to a request for confidential treatment. An unredacted version of this table has been filed separately.

SUMMARY OF BASELINE PHOSPHOGYPSUM STACK VOLUMES AND CLOSURE AREAS FOR RIVERVIEW FACILITY

Facility	Closure Area Criteria							Phosphogypsum Volume Criteria						
	Area (acres)							Phosphogypsum Stack Volume (acre-feet)						
	Stack System Total Area	Total Closure Area [A_t]	Components of Total Closure Area [2]					Phosphogypsum Volume Below Future Intermediate Liner	Phosphogypsum Volume in All Other Portions of Stack System	Total Phosphogypsum Volume [$V_t = V_o + V_e$]	Components of Total Phosphogypsum Volume			
			Existing Permitted Areas		Future Expansion Closure Area [A_e]	Total Future Closure Area $A_{tt}=[A_f + A_e]$	Individual Components				Individual Components	Active Stack Cumulative Volume	Existing Permitted Phosphogypsum Volume [V_o]	Future Expansion Phosphogypsum Volume [V_e]
			Existing Permanently Closed Area [A_o]	Future Closure Area [A_f]										
Riverview	*	[redacted]												
					Active Gypsum Stack		*				*		Closed Gypsum Stack [Figure 2]	
					Cooling Pond								Northeast Gypsum Stack to El. 210' [Figure 3]	
					Cooling Pond Upland								Current Expansion Stack [Figure 4]	
					Auxiliary Holding Pond								Expansion Stack into Cooling Pond [Figure 5]	
* [redacted]														

By: AHR/tsi
Date: 09/22/15
Rev.: 6

Portions of this table have been omitted pursuant to a request for confidential treatment. An unredacted version of this table has been filed separately.

Attachment G: Updated

Attachment G: Updated

TOTAL PHOSPHOGYPSUM VOLUME AND TOTAL FUTURE CLOSURE AREA AT DETERMINATION DATE PRIOR TO LATERAL EXPANSION FOR PARAGRAPH 29.b(3)(b)

Facility	Phosphogypsum Volume (acre-feet)				Future Closure Area (acre)		
	Existing Permitted Phosphogypsum Volume	Expansion Phosphogypsum Volume	When Applicable, Phosphogypsum Volume to Add if Intermediate Liner is not Installed as Planned	**Total Phosphogypsum Volume**	Existing Permitted Future Closure Area	Expansion Closure Area	**Total Future Closure Area**
Bartow							
2015 Baseline Values				*			
Increase (%)							

REV. 0
09/22/15

** = Portions of this table have been omitted pursuant to a request for confidential treatment. An unredacted version of this table has been filed separately.*

Attachment G: Updated

TOTAL PHOSPHOGYPSUM VOLUME AND TOTAL FUTURE CLOSURE AREA AT DETERMINATION DATE PRIOR TO LATERAL EXPANSION FOR PARAGRAPH 29.b(3)(b)

Facility	Phosphogypsum Volume (acre-feet)					Future Closure Area (acre)			
	Existing Permitted Phosphogypsum Volume	Expansion Phosphogypsum Volume	Planned Future Expansion Phosphogypsum Volume	When Applicable, Phosphogypsum Volume to Add if Intermediate Liner is not Installed as Planned	**Total Phosphogypsum Volume**	Existing Permitted Future Closure Area	Expansion Closure Area	Planned Future Expansion Closure Area	**Total Future Closure Area**
New Wales									
2015 Baseline Values					*				
Increase (%)									

REV. 0
09/22/15

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Attachment G: Updated

TOTAL PHOSPHOGYPSUM VOLUME AND TOTAL FUTURE CLOSURE AREA AT DETERMINATION DATE PRIOR TO LATERAL EXPANSION FOR PARAGRAPH 29.b(3)(b)

Facility	Phosphogypsum Volume (acre-feet)				Future Closure Area (acre)		
	Existing Permitted Phosphogypsum Volume	Expansion Phosphogypsum Volume	When Applicable, Phosphogypsum Volume to Add if Intermediate Liner is not Installed as Planned	**Total Phosphogypsum Volume**	Existing Permitted Future Closure Area	Expansion Closure Area	**Total Future Closure Area**
Riverview							
2015 Baseline Values				[redacted]			
Increase (%)							

REV. 0
09/22/15

** = Portions of this table have been omitted pursuant to a request for confidential treatment. An unredacted version of this table has been filed separately.*

SUMMARY OF UPDATED PHOSPHOGYPSUM STACK VOLUMES AND CLOSURE AREAS FOR BARTOW FACILITY & REGIONAL HOLDING POND

Facility	Closure Area Criteria							Phosphogypsum Volume Criteria						
	Area (acres)							Phosphogypsum Stack Volume (acre-feet)						
	Stack System Total Area	Total Closure Area [A_t]	Components of Total Closure Area					Phosphogypsum Volume Below Future Intermediate Liner	Phosphogypsum Volume in All Other Portions of Stack System	Total Phosphogypsum Volume [$V_t = V_o + V_e$]	Components of Total Phosphogypsum Volume			
			Existing Permitted Areas		Expansion Closure Area [A_e]	Total Future Closure Area $A_{tf}=[A_f + A_e]$	Individual Components				Individual Components	South Stack Cumulative Volume	Existing Permitted Phosphogypsum Volume [V_o]	Expansion Phosphogypsum Volume [V_e]
			Existing Permanently Closed Area [A_o]	Future Closure Area [A_f]										
Bartow	*													
			South Phosphogypsum Stack System		South Gypsum Stack		*				*		Closed North Stack	
					Booster Pump Area								South Gypsum Stack to El. 510'	
			North Phosphogypsum Stack System		Cooling Pond R-3								South Gypsum Stack Expansion	
					Cooling Pond R-5									
					Cooling Pond R-6									
					Cooling Pond R-7									
					Auxiliary Holding Ponds									
					R2 Canal Upland Area									
			Regional Holding Pond											
*														

By: AHR/tsi
Date: 09/22/15
Rev.: 0

** Portions of this table have been omitted pursuant to a request for confidential treatment. An unredacted version of this table has been filed separately.*

SUMMARY OF UPDATED PHOSPHOGYPSUM STACK VOLUMES AND CLOSURE AREAS FOR NEW WALES FACILITY

Facility	Closure Area Criteria								Phosphogypsum Volume Criteria								
	Area (acres)								Phosphogypsum Stack Volume (acre-feet)								
	Stack System Total Area	Total Closure Area [A_t]	Components of Total Closure Area						Phosphogypsum Volume Below Future Intermediate Liner	Phosphogypsum Volume in All Other Portions of Stack System	Total Phosphogypsum Volume [$V_t = V_o + V_e + V_{ef}$]	Components of Total Phosphogypsum Volume				
			Existing Permitted Areas		Expansion Closure Area [A_e]	Future Expansion Closure Area [A_{ef}]	Total Future Closure Area $A_{tf}=[A_f + A_e + A_{ef}]$	Individual Components				Individual Components	South Stack Cumulative Volume	Existing Permitted Phosphogypsum Volume [V_o]	Expansion Phosphogypsum Volume [V_e]	Future Expansion Phosphogypsum Volume [V_{ef}]
			Existing Permanently Closed Area [A_o]	Future Closure Area [A_f]												
New Wales	* [redacted]															
							Northeast Sump	[redacted]				[redacted]		Closed North Stack		
							LESP-3	*						South Stack Phase I/II to El. 520'		
							NW Early Closure							South Stack Phase III to El. 520'		
							LESP-1 & LESP-2							South Stack Phase IV to El. 520'		
							Auxiliary Holding Pond									
							Cooling Pond & Channels									
							Cooling Pond Upland Areas									
							South Stack									
[redacted]																

By: TSI
Date: 09/22/15
Rev.: 0

* Portions of this table have been omitted pursuant to a request for confidential treatment. An unredacted version of this table has been filed separately.

SUMMARY OF UPDATED PHOSPHOGYPSUM STACK VOLUMES AND CLOSURE AREAS FOR RIVERVIEW FACILITY

Facility	Closure Area Criteria							Phosphogypsum Volume Criteria						
	Area (acres)							Phosphogypsum Stack Volume (acre-feet)						
	Stack System Total Area	Total Closure Area [A_t]	Components of Total Closure Area					Phosphogypsum Volume Below Future Intermediate Liner	Phosphogypsum Volume in All Other Portions of Stack System	Total Phosphogypsum Volume [$V_t = V_o + V_e$]	Components of Total Phosphogypsum Volume			
			Existing Permitted Areas		Expansion Closure Area [A_e]	Total Future Closure Area $A_{ft}=[A_f + A_e]$	Individual Components				Individual Components	Active Stack Cumulative Volume	Existing Permitted Phosphogypsum Volume [V_o]	Expansion Phosphogypsum Volume [V_e]
			Existing Permanently Closed Area [A_o]	Future Closure Area [A_f]										
Riverview	*	[redacted]												
					Active Gypsum Stack		*				*		Closed Gypsum Stack	
					Cooling Pond								Northeast Gypsum Stack to El. 210'	
					Cooling Pond Upland								Current Expansion Stack	
					Auxiliary Holding Pond								Expansion Stack into Cooling Pond	
[redacted]														

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Date: 09/22/15
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** = portions of this table have been omitted pursuant to a request for confidential treatment. An unredacted version of this table has been filed separately.*

Attachment G: Bartow Facility

Figure 1: North Phosphogypsum Stack System Areas

Figure 2: South Phosphogypsum Stack System Areas

Figure 3: Regional Holding pond Areas

Figure 4: Topography of North Gypsum Stack Prior to Closure

Figure 5: South Gypsum Stack Base Area and Top Area at El. 510’

Figure 6: South Gypsum Stack Base Area and Top Area

Figure 7: Volume of South Gypsum Stack Below Environmental Liner

Figure 8: North-South Cross Section

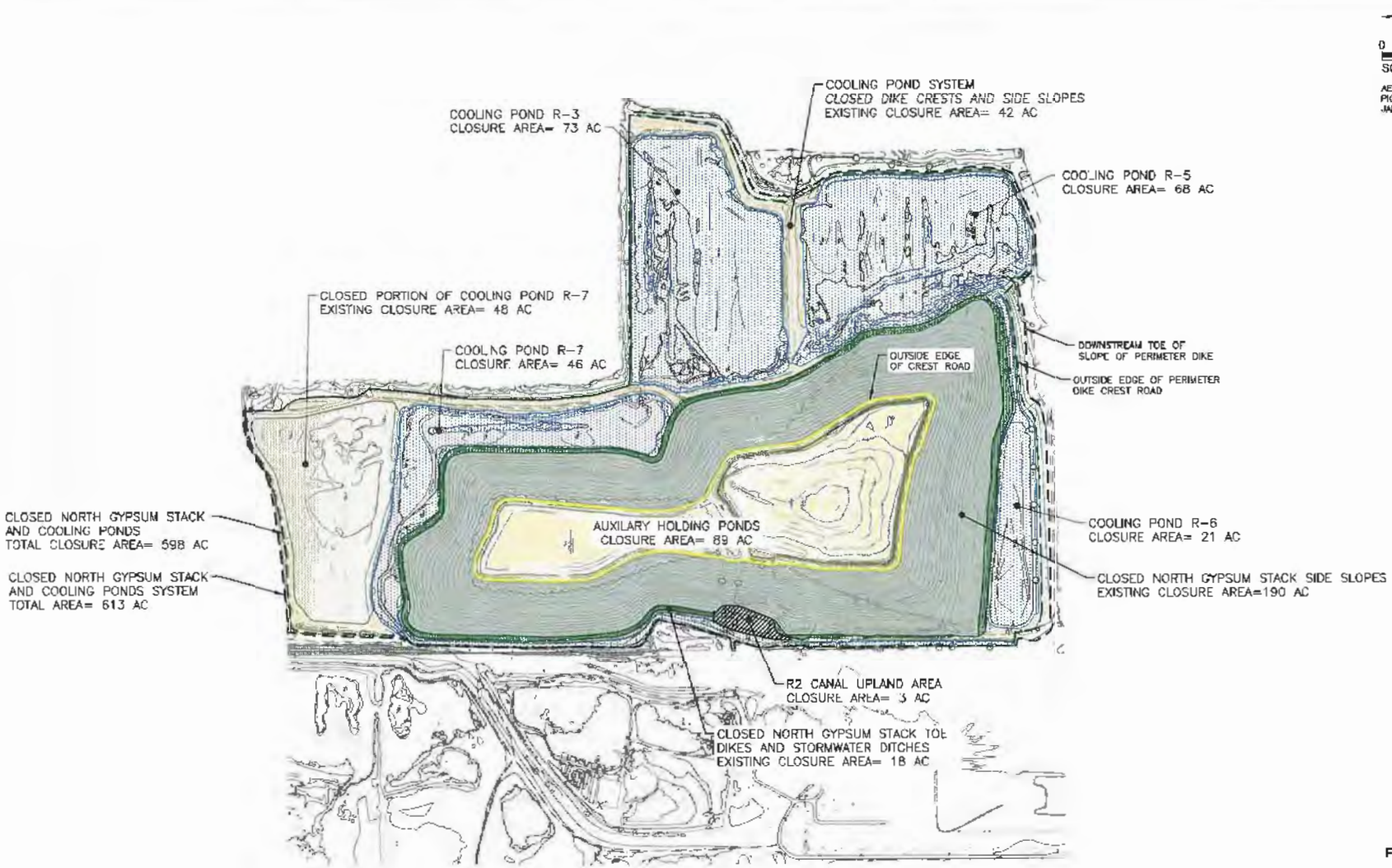
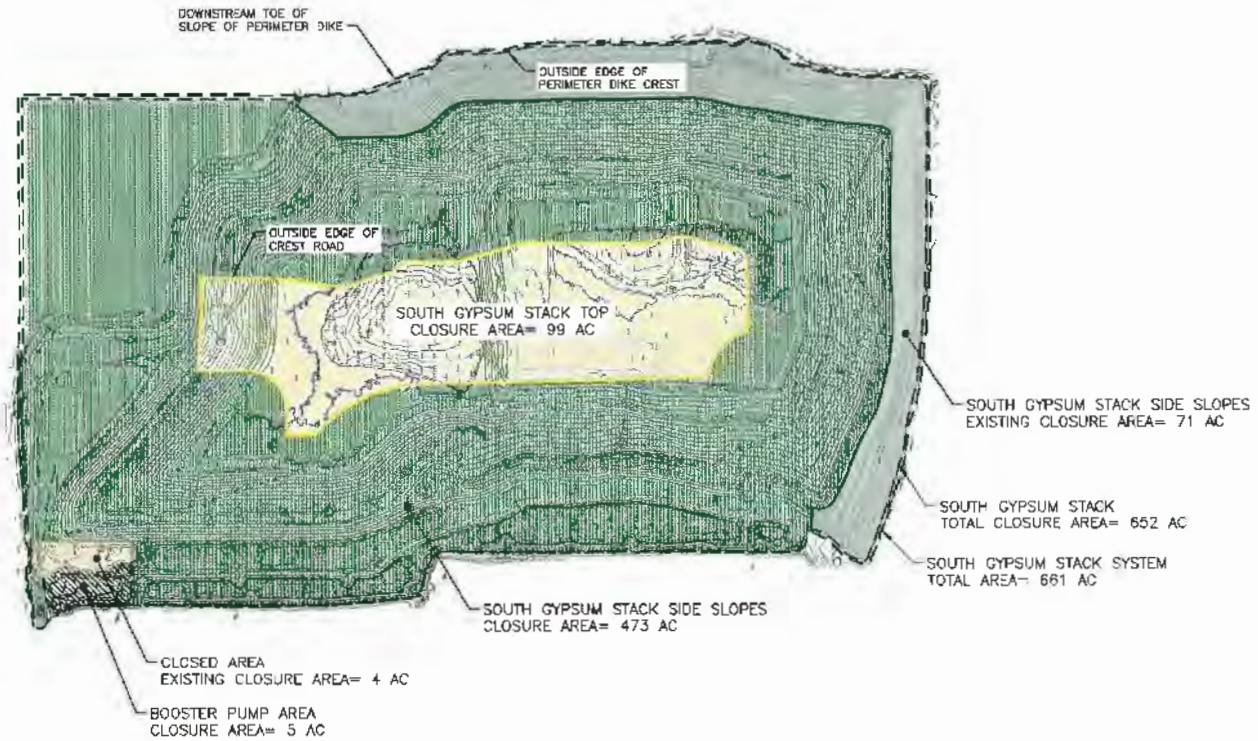


FIGURE 1

NORTH PHOSPHOGYPSUM STACK SYSTEM AREAS

BARTOW FACILITY

T:\Corporate\09\09-13-0092X\GYPSUM VOLUME FIGURES\BARTOW_CURRENT SHEET SET\FIGURE 1 and 2 SOUTH PHOSPHOGYPSUM STACK SYSTEM AREAS.dwg 2015/09/22 6:09 PM, Clemons, Richard



N

0 500 1000
SCALE: FEET

AERIAL TOPOGRAPHY:
PICKETT & ASSOCIATES, INC.
JANUARY 2015

FIGURE 2

SOUTH PHOSPHOGYPSUM
STACK SYSTEM AREAS

BARTOW FACILITY

T:\Corporate\08\08-13-0092X\GYPSUM VOLUME FIGURES\BARTOW_CURRENT SHEET SET\FIG.RC and 2 SOUTH PHOSPHOGYPSUM STACK SYSTEM AREAS.dwg 2015/09/22 6:10 PM, Clemons, Richard

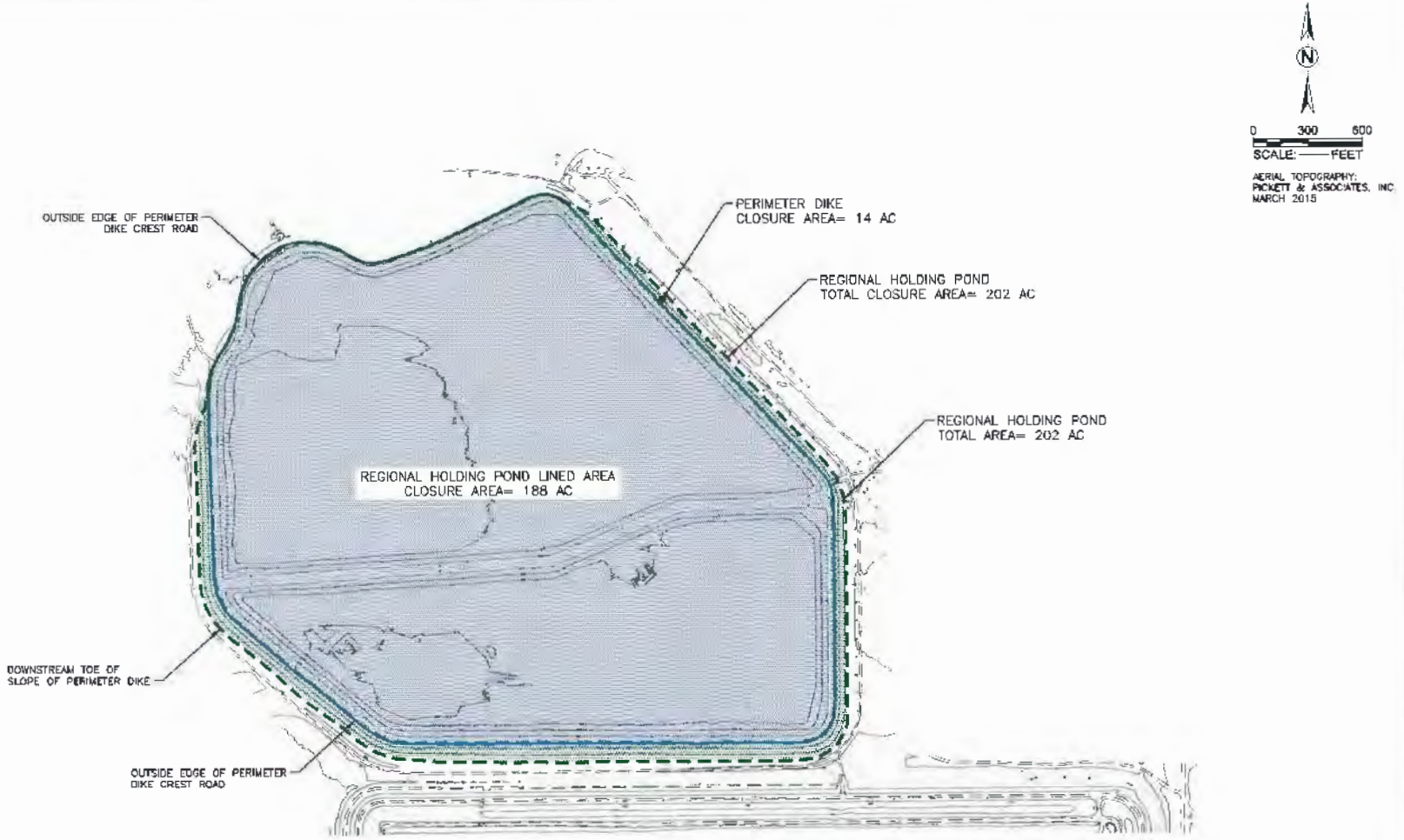


FIGURE 3

REGIONAL HOLDING POND AREAS

BARTOW FACILITY

f:\Corporate\09\09-13-00822\CITYSUN VOLUME FIGURES\BARTOW_CURRENT SHEET SET\3 REGIONAL HOLDING POND AREAS.dwg 2015/09/22 8:10 PM, Clemons, Richard

	AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
	TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
ABOVE-GRADE	89	260	355	208	*		
BELOW-GRADE	275	275	208	190			

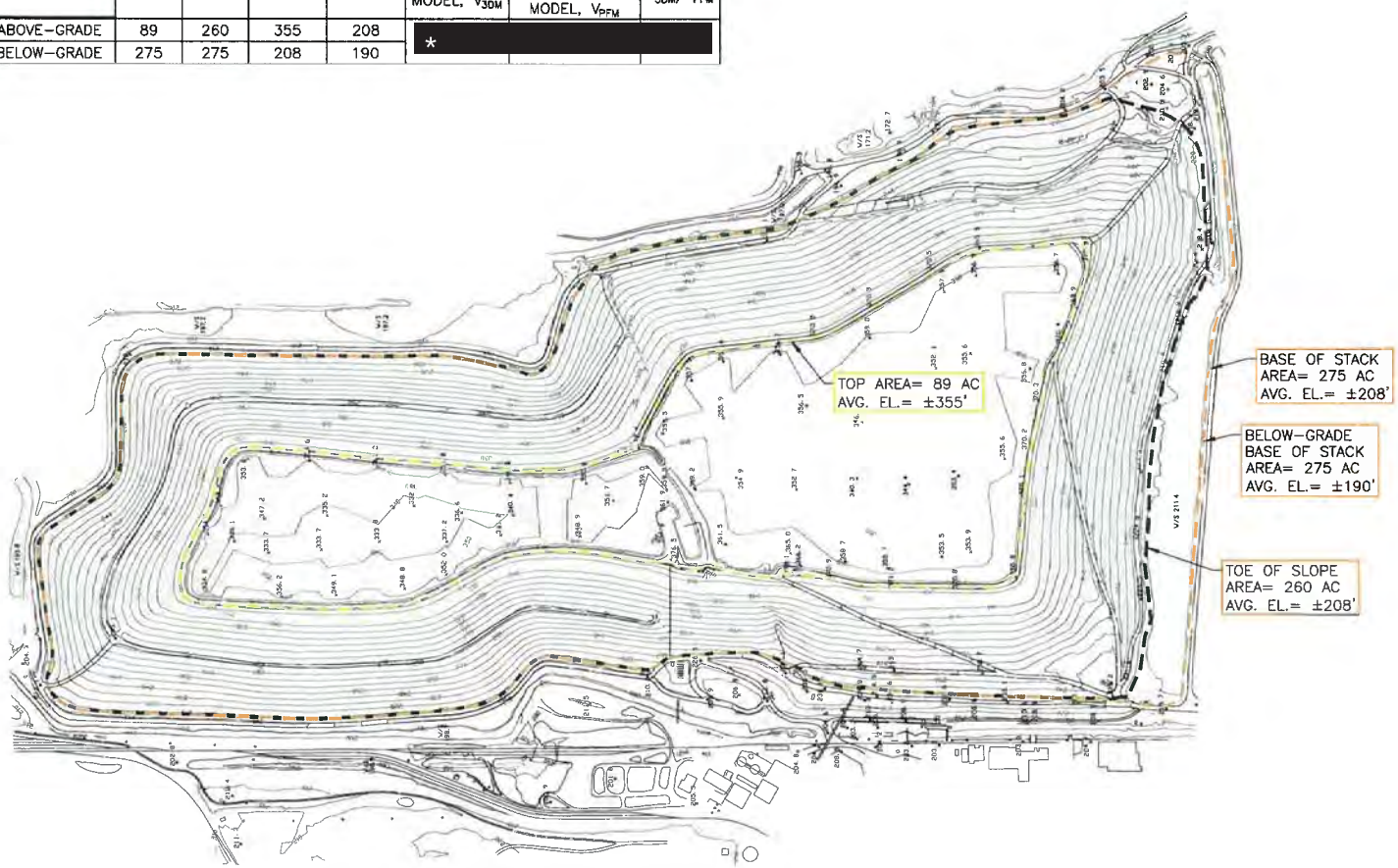


FIGURE 4

TOPOGRAPHY OF NORTH GYPSUM STACK PRIOR TO CLOSURE

BARTOW FACILITY

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

T:\Corporate\09\09-13-0092X\GYPSUM VOLUME FIGURES\BARTOW_CURRENT SHEET SET\4 TOPOGRAPHY OF NORTH GYPSUM STACK PRIOR TO CLOSURE.dwg 2015/09/22 6:11 PM, Clemons, Richard

AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
85	203	510	340	[redacted]		
203	463	340	180			

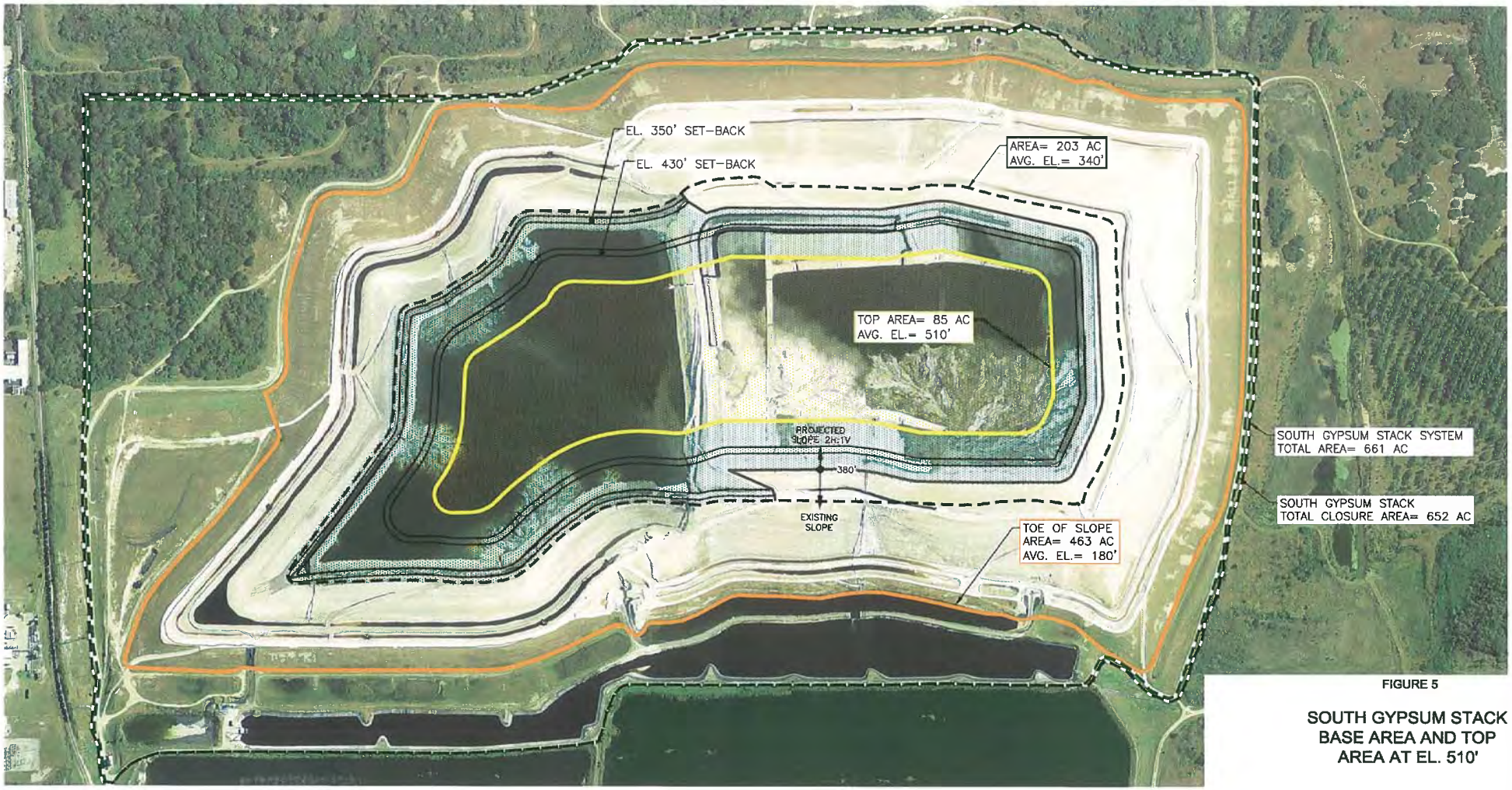


FIGURE 5

SOUTH GYPSUM STACK BASE AREA AND TOP AREA AT EL. 510'

BARTOW FACILITY

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

T:\Corporate\09\09-13-0092X\GYPSUM VOLUME FIGURES\BARTOW_CURRENT SHEET SET\5 SOUTH GYPSUM STACK BASE AREA AND TOP AREA AT EL. 510'.dwg 2015/09/22 6:12 PM, Clemons, Richard

AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
[redacted]						

*

[redacted]

*

N

0 300 600

SCALE: ——FEET

AERIAL PHOTOGRAPHY: KUCERA INTERNATIONAL, INC. DECEMBER 2014

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

FIGURE 6

SOUTH GYPSUM STACK BASE AREA AND TOP AREA *

BARTOW FACILITY

T:\Corporate\09\09-13-0092X\GYPSUM VOLUME FIGURES\BARTOW_CURRENT SHEET SET\6 SOUTH GYPSUM STACK BASE AREA AND TOP AREA * dwg 2015/09/22 6:13 PM, Clemons, Richard

AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
388	463	235	180	*	[redacted]	

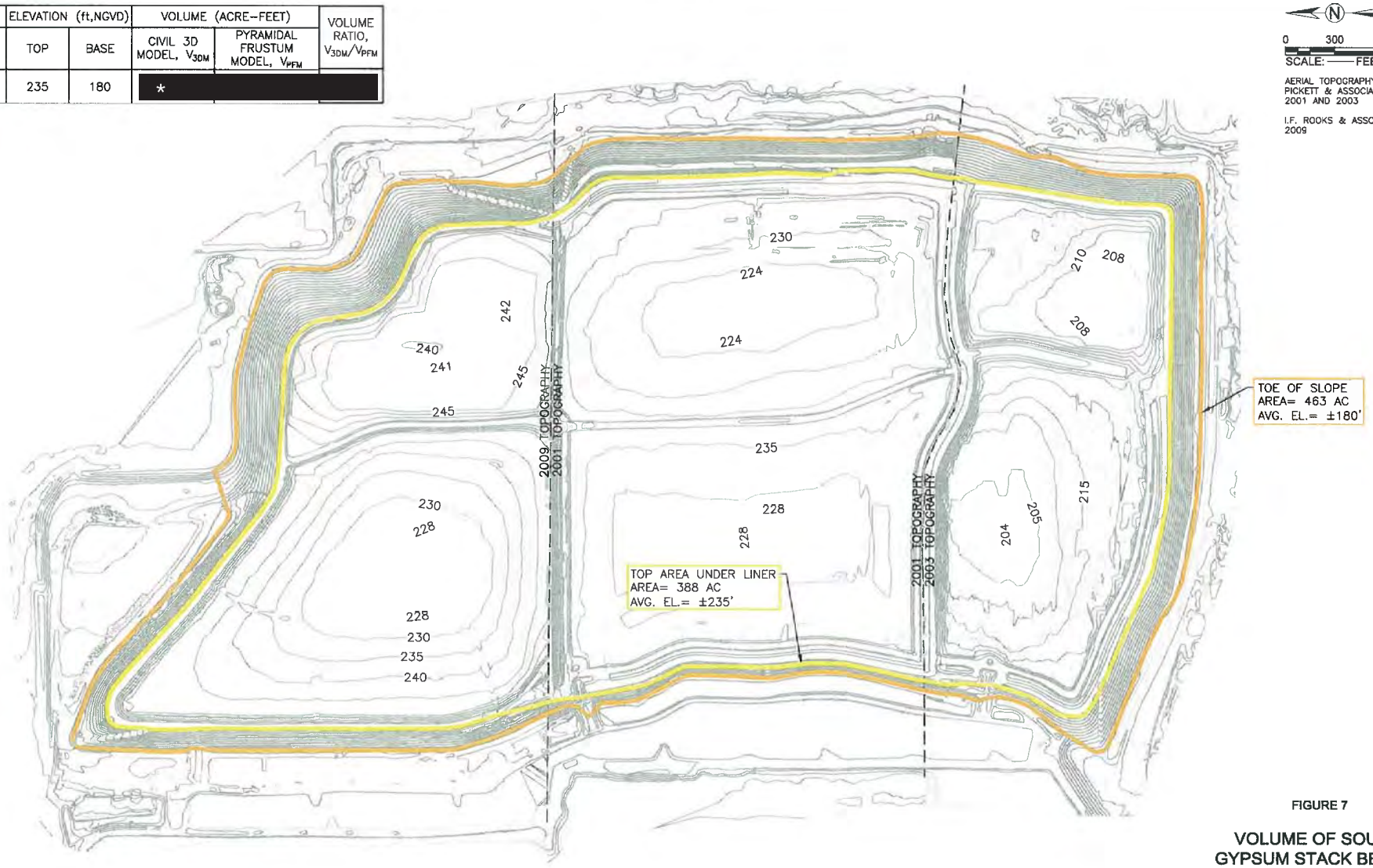


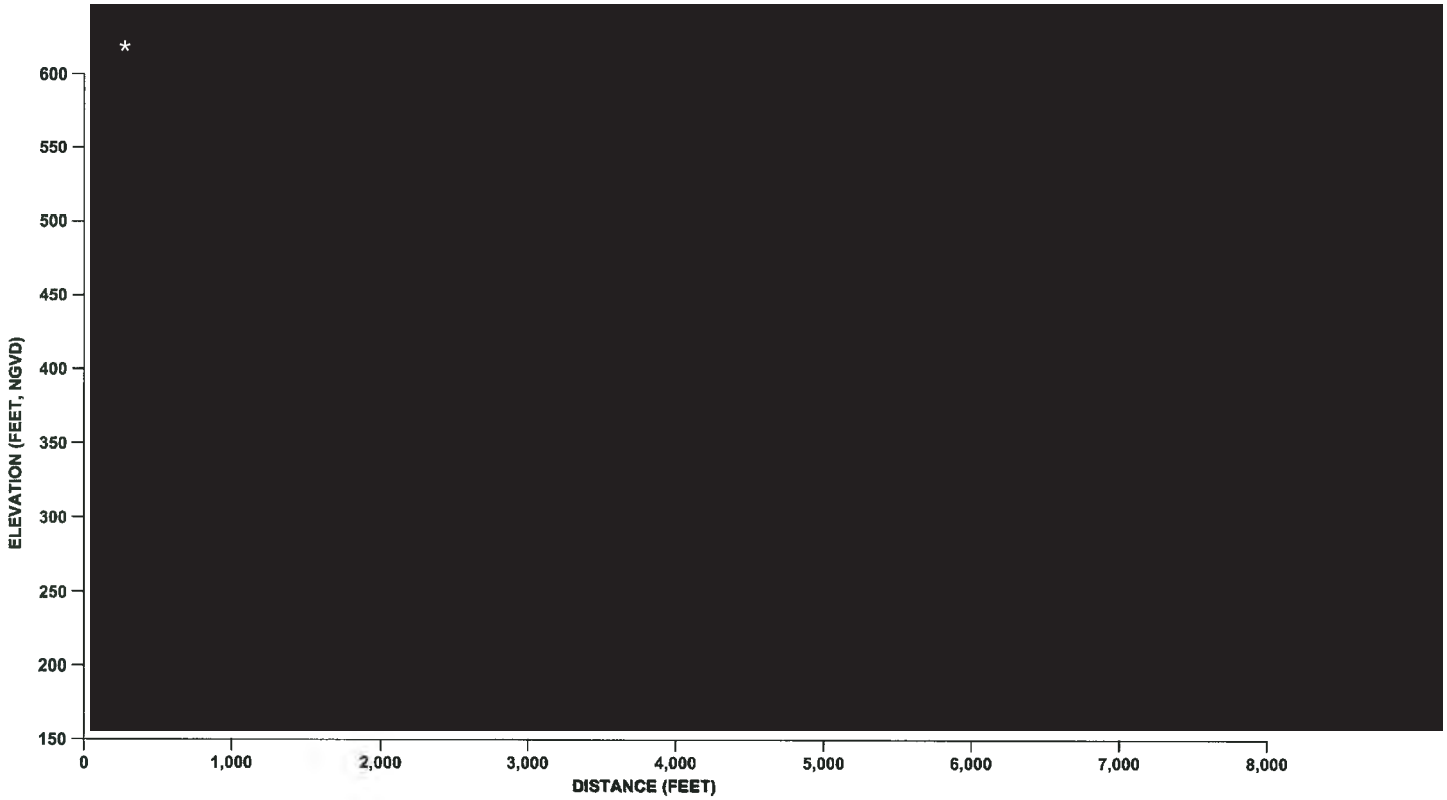
FIGURE 7

VOLUME OF SOUTH GYPSUM STACK BELOW ENVIRONMENTAL LINER

BARTOW FACILITY

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

T:\Corporate\09\09-13-0092X\GYPSUM VOLUME FIGURES\BARTOW_CURRENT SHEET SET\7 VOLUME OF SOUTH GYPSUM STACK BELOW ENVIRONMENTAL LINER.dwg 2015/09/22 6:14 PM, Clemons, Richard



The planned changes or expansions include dates when construction is currently estimated to begin. These dates are subject to change based on numerous factors, including years for attaining intermediate stack elevations and reaching terminal stack elevations, changes in market conditions, changes in production rates and Mosaic's business plans, and changes to Mosaic's long–term operating plans for the Facilities. In any event, activation of the planned changes or expansions will likely occur approximately 2 years after the beginning of construction.

The planned changes or expansions also include Mosaic's best estimate of the locations, area, and acreage for each planned change or expansion. These estimates are based on Mosaic's projected long–term operating plans and projected availability of rock sources for each Facility. The acreages for planned expansions are based upon either: (1) the lined area and area of surrounding perimeter containment dikes for lateral expansions beyond the existing phosphogypsum stack system footprint; or (2) lined areas atop existing stack surfaces for lateral expansions contained within the existing phosphogypsum stack system.

FIGURE 8

NORTH-SOUTH CROSS SECTION * [redacted]

BARTOW FACILITY

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

T:\Corporate\09\09–13–0092X\GYPSUM VOLUME FIGURES\BARTOW_CURRENT SHEET SET\8 NORTH–SOUTH CROSS SECTION [redacted] dwg 2015/09/22 7:27 PM, Clemons, Richard

Attachment G: New Wales Facility

Figure 1: Phosphogypsum Stack System Areas

Figure 2: Topography of North Gypsum Stack Prior to Closure

Figure 3: Phase I & II Gypsum Stack Base Area and Top Area at El. 520’

Figure 4: Phase III Gypsum Stack expansion Base Area and Top Area at El. 520’

Figure 5: Phase IV Gypsum Stack Expansion Base Area and Top Area at El. 520’

Figure 6: North-South Cross Section

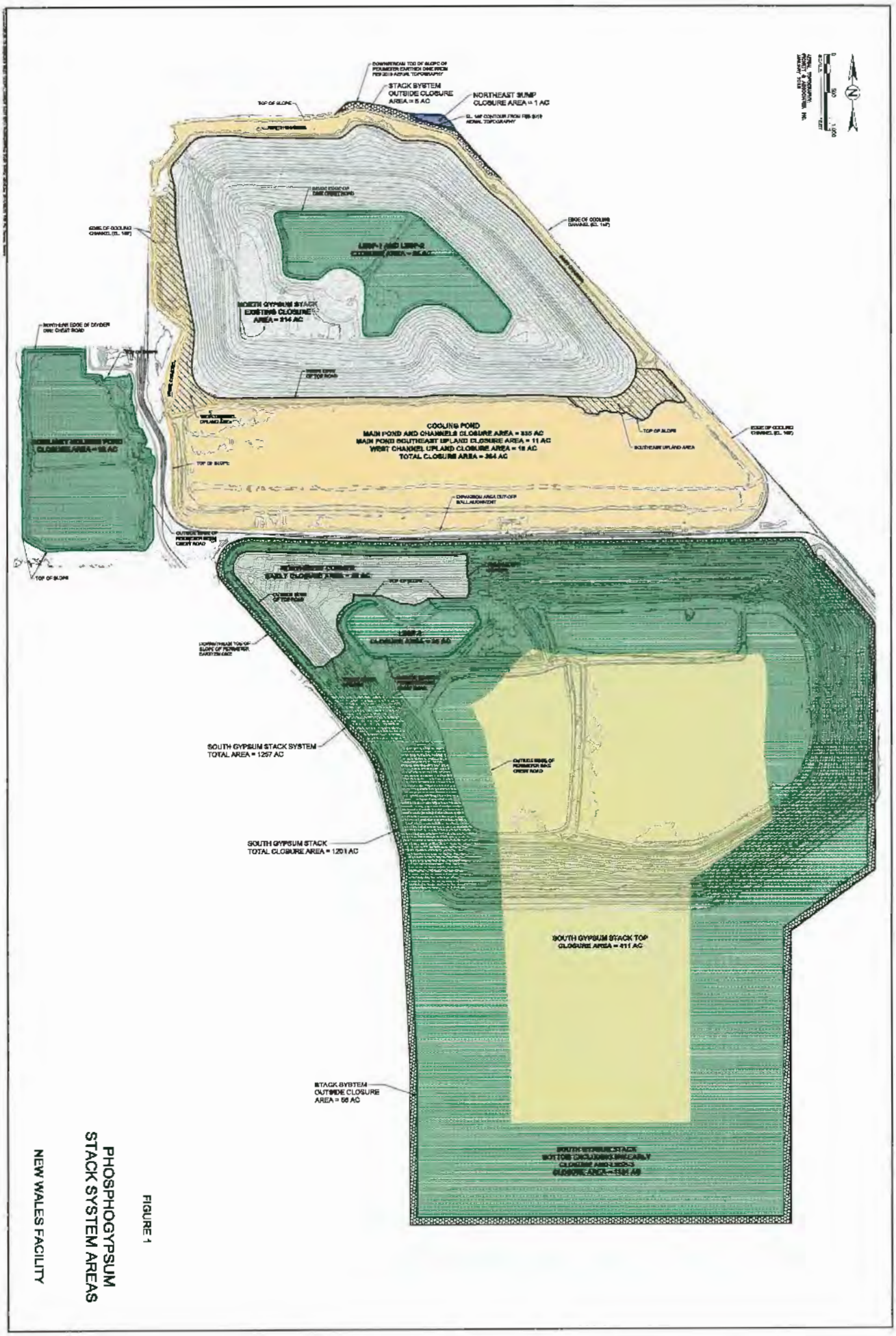
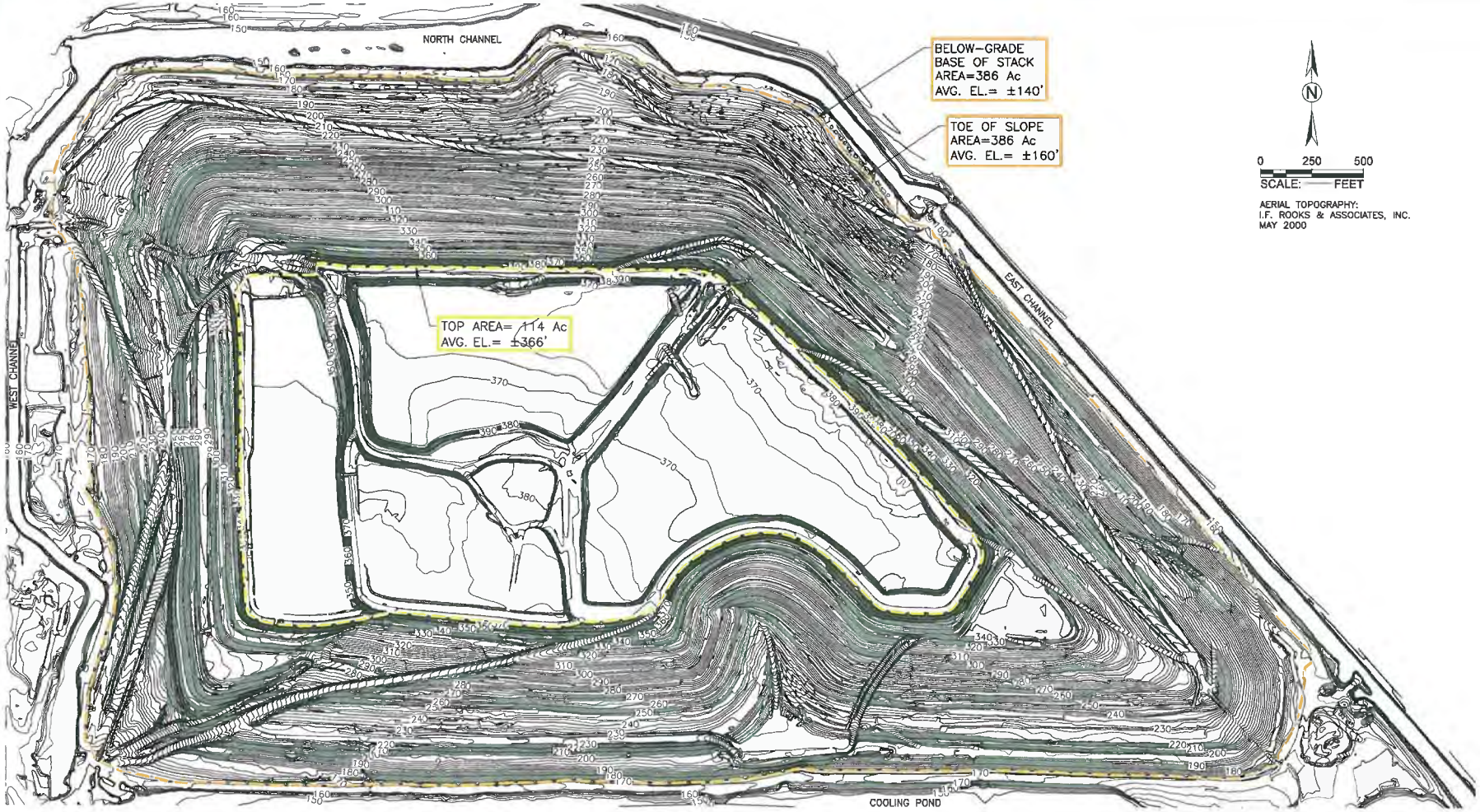


FIGURE 1

PHOSPHOGYPSUM
STACK SYSTEM AREAS

NEW WALES FACILITY



	AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
	TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
ABOVE-GRADE	114	386	366	160	*		
BELOW-GRADE	386	386	160	140			

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

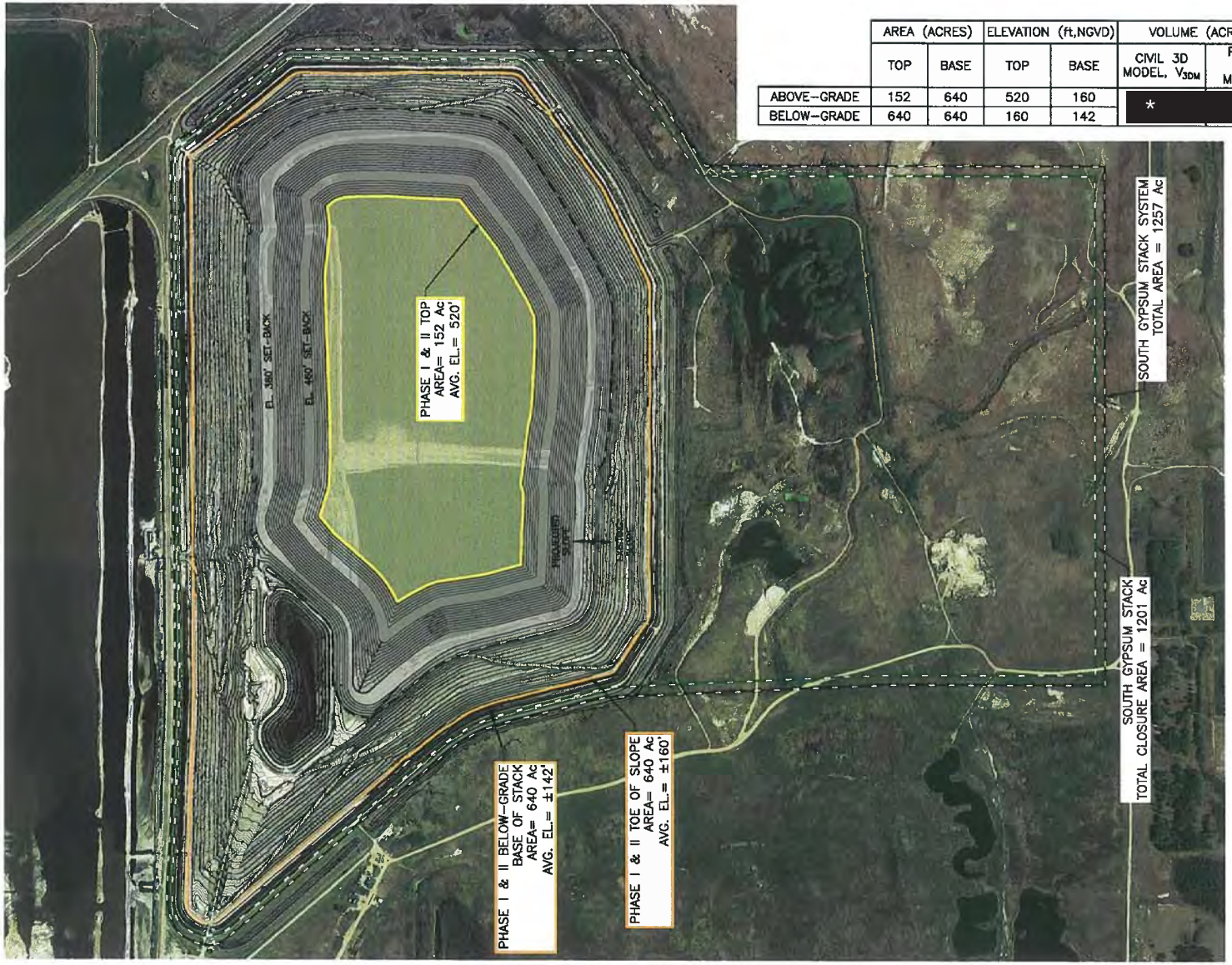
FIGURE 2

TOPOGRAPHY OF NORTH GYPSUM STACK PRIOR TO CLOSURE

NEW WALES FACILITY

I:\Corporate\09\09-13-0092X\NEW WALES FACILITY_CURRENT SHEET SET\2 TOPOGRAPHY OF NORTH GYPSUM STACK.dwg 2015/09/22 6:03 PM, Clemons, Richard

	AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
	TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
ABOVE-GRADE	152	640	520	160	*		
BELOW-GRADE	640	640	160	142			



N

0 500 1000
SCALE: —— FEET

AERIAL TOPOGRAPHY:
I.F. ROOKS & ASSOCIATES, INC.
JANUARY 2012
AERIAL PHOTOGRAPHY:
KUCERA INTERNATIONAL, INC
DECEMBER 2014

FIGURE 3

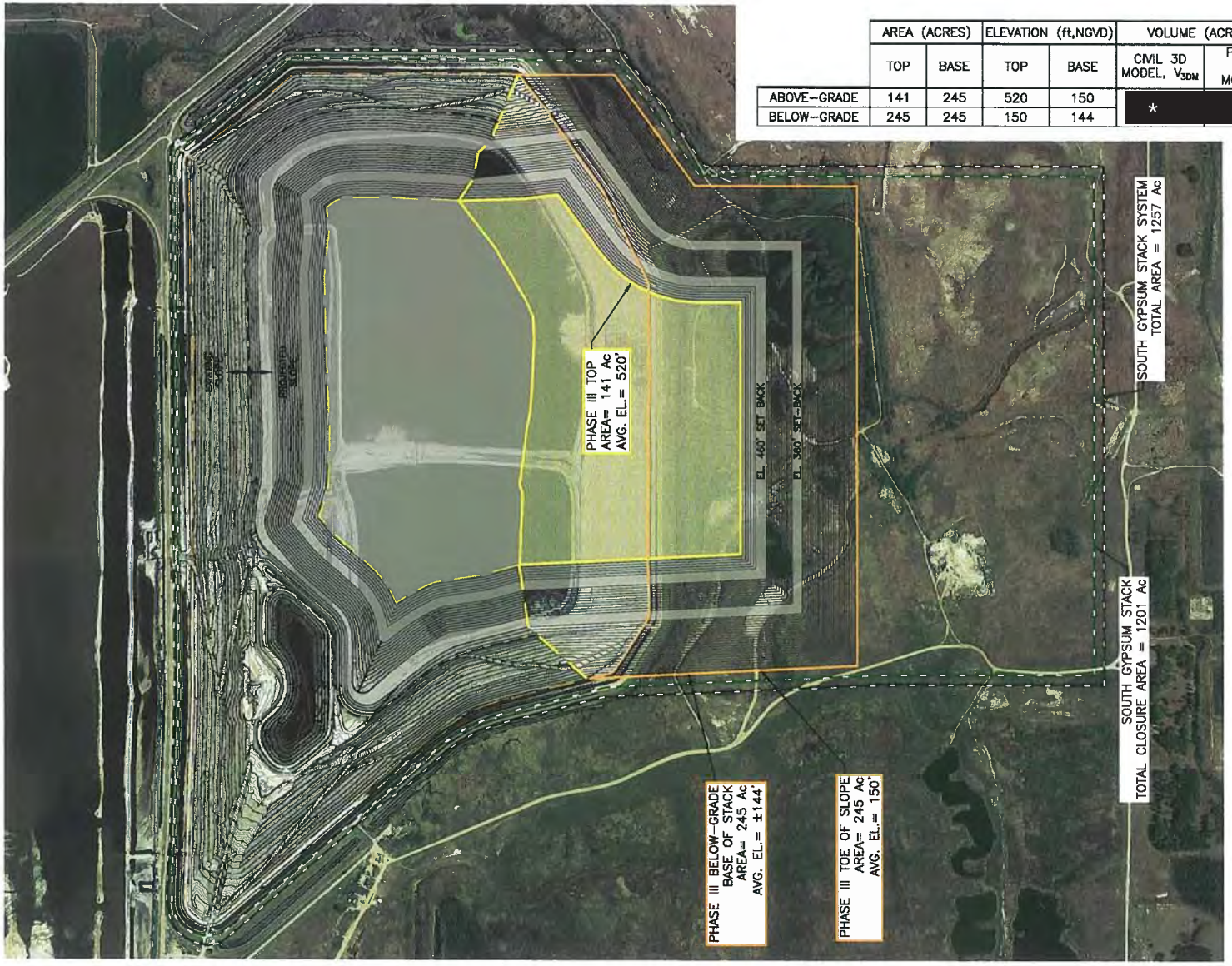
PHASE I & II GYPSUM STACK BASE AREA AND TOP AREA AT EL. 520'

NEW WALES FACILITY

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

T:\Corporate\09\09-13-0092X\NEW WALES FACILITY_CURRENT SHEET SET\3 PHASE I & II GYPSUM STACK BASE AREA AND TOP AREA AT EL 520'.dwg 9/22/2015 6:03:34 PM, richard.clemons

	AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
	TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
ABOVE-GRADE	141	245	520	150	*		
BELOW-GRADE	245	245	150	144			



N

0 500 1000
SCALE: —— FEET

AERIAL TOPOGRAPHY:
I.F. ROOKS & ASSOCIATES, INC.
JANUARY 2012
AERIAL PHOTOGRAPHY:
KUCERA INTERNATIONAL, INC
DECEMBER 2014

FIGURE 4

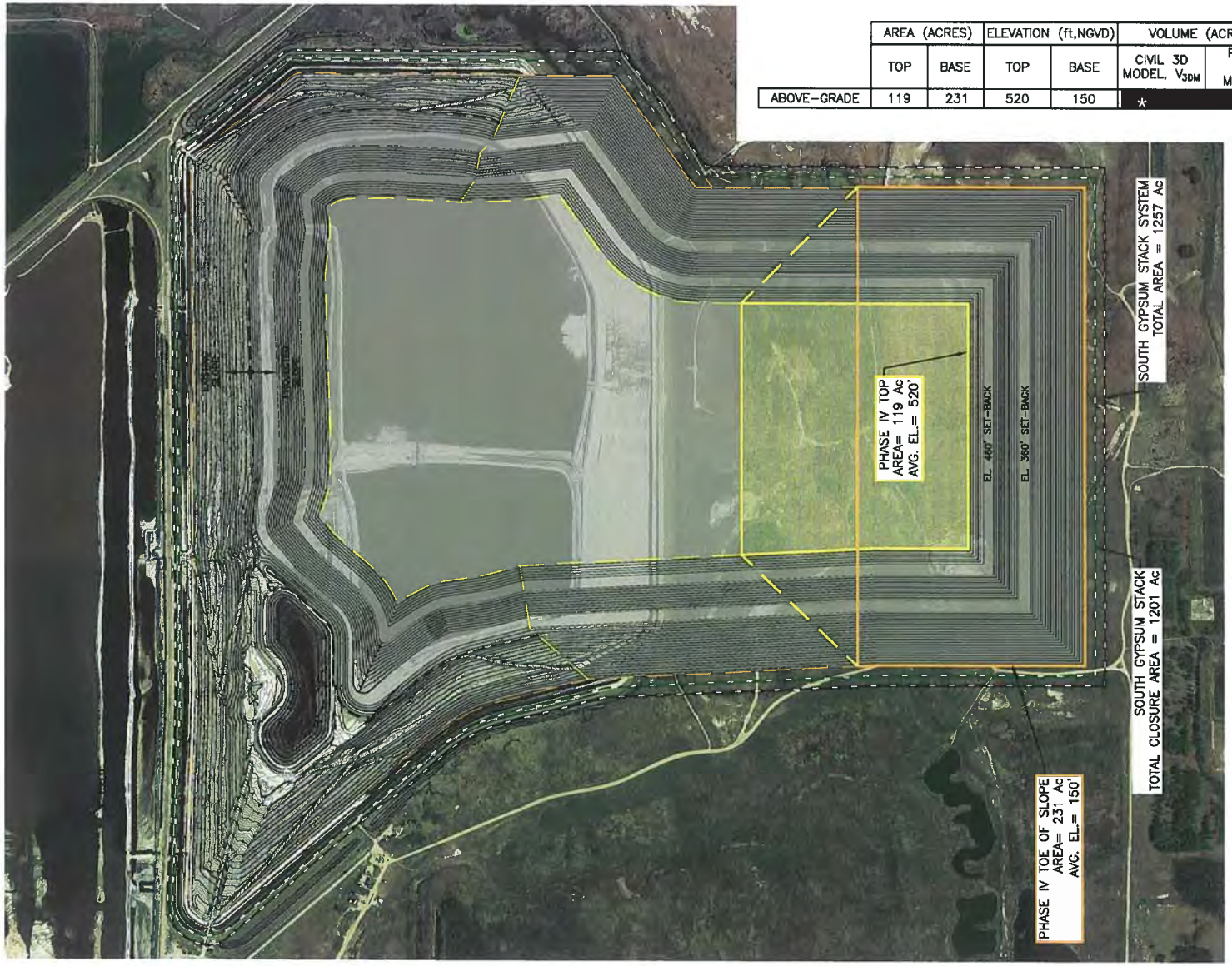
PHASE III GYPSUM STACK EXPANSION BASE AREA AND TOP AREA AT EL. 520'

NEW WALES FACILITY

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

F:\Corporate\09\09-13-0092X\NEW WALES FACILITY_CURRENT SHEET SET\4 PHASE III GYPSUM STACK BASE AREA AND TOP AREA AT EL 520'.dwg 9/22/2015 6:03:58 PM, richard.clemons

	AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
	TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
ABOVE-GRADE	119	231	520	150	*		



N

0 500 1000
SCALE: —— FEET

AERIAL TOPOGRAPHY:
I.F. ROOKS & ASSOCIATES, INC.
JANUARY 2012
AERIAL PHOTOGRAPHY:
KUCERA INTERNATIONAL, INC
DECEMBER 2014

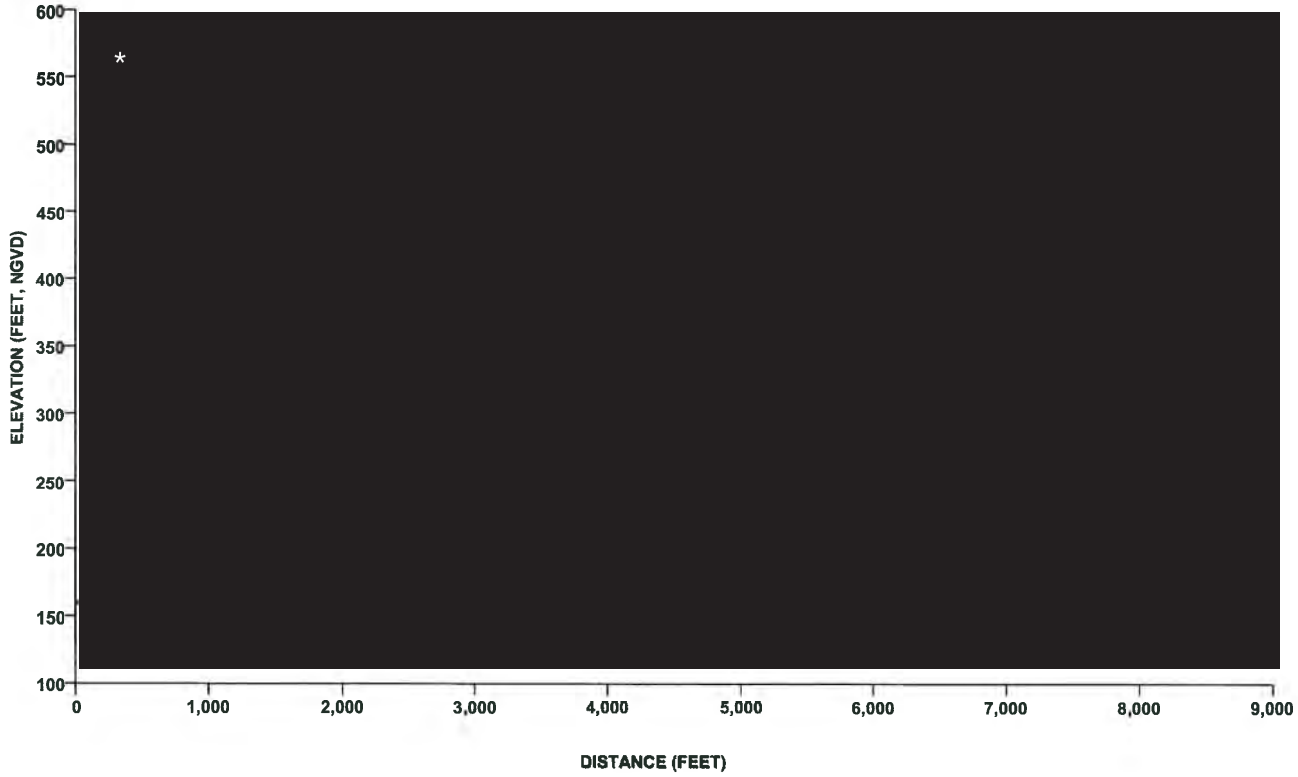
FIGURE 5

PHASE IV GYPSUM STACK EXPANSION BASE AREA AND TOP AREA AT EL. 520'

NEW WALES FACILITY

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

T:\Corporate\09\09-13-0092X\NEW WALES FACILITY_CURRENT SHEET SET\5 PHASE IV GYPSUM STACK BASE AREA AND TOP AREA AT EL 520'.dwg 9/22/2015 6:04:18 PM, richard.clemons



** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

The planned changes or expansions include dates when construction is currently estimated to begin. These dates are subject to change based on numerous factors, including years for attaining intermediate stack elevations and reaching terminal stack elevations, changes in market conditions, changes in production rates and Mosaic's business plans, and changes to Mosaic's long–term operating plans for the Facilities. In any event, activation of the planned changes or expansions will likely occur approximately 2 years after the beginning of construction.

The planned changes or expansions also include Mosaic's best estimate of the locations, area, and acreage for each planned change or expansion. These estimates are based on Mosaic's projected long–term operating plans and projected availability of rock sources for each Facility. The acreages for planned expansions are based upon either: (1) the lined area and area of surrounding perimeter containment dikes for lateral expansions beyond the existing phosphogypsum stack system footprint; or (2) lined areas atop existing stack surfaces for lateral expansions contained within the existing phosphogypsum stack system.

FIGURE 6

NORTH-SOUTH CROSS SECTION * [redacted]

NEW WALES FACILITY

T:\Corporate\09\09-13-0092X\NEW WALES FACILITY_CURRENT SHEET SET\6 NORTH-SOUTH CROSS SECTION * [redacted] dwg 2015/09/22 7:30 PM, Clemons, Richard

Attachment G: Riverview Facility

Figure 1: Phosphogypsum Stack System Areas

Figure 2: Topography of Closed Gypsum Stack Prior to Closure

Figure 3: Northeast Gypsum Stack Base Area and Top Area at El. 210’

Figure 4: Current Expansion Stack Base Area and Top Area at El. 260’

Figure 5: Expansion into Cooling Pond Base Area and Top Area at El. 260’

Figure 6: North-South Cross Section

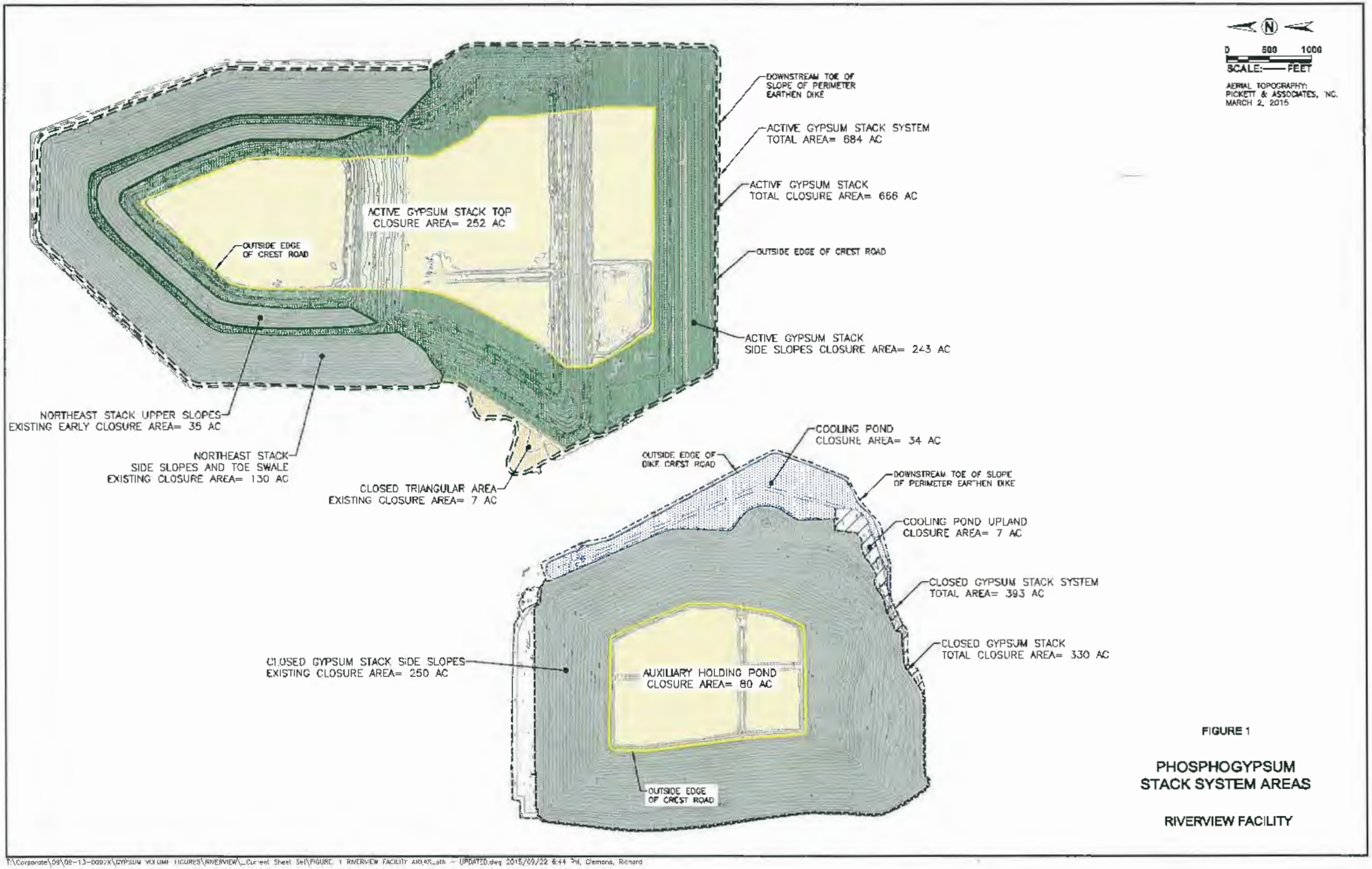


FIGURE 1

PHOSPHOGYPSUM STACK SYSTEM AREAS

RIVERVIEW FACILITY

F:\Corporate\09\09-13-0092X\GYPSUM VOLUME FIGURES\RIVERVIEW_Current Sheet Set\FIGURE 1 RIVERVIEW FACILITY AREAS_sth - UPDATED.dwg 2015/09/22 6:44 PM, Clemons, Richard

	AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
	TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
ABOVE-GRADE	100	317	180	15	*		
BELOW-GRADE	317	317	15	5			

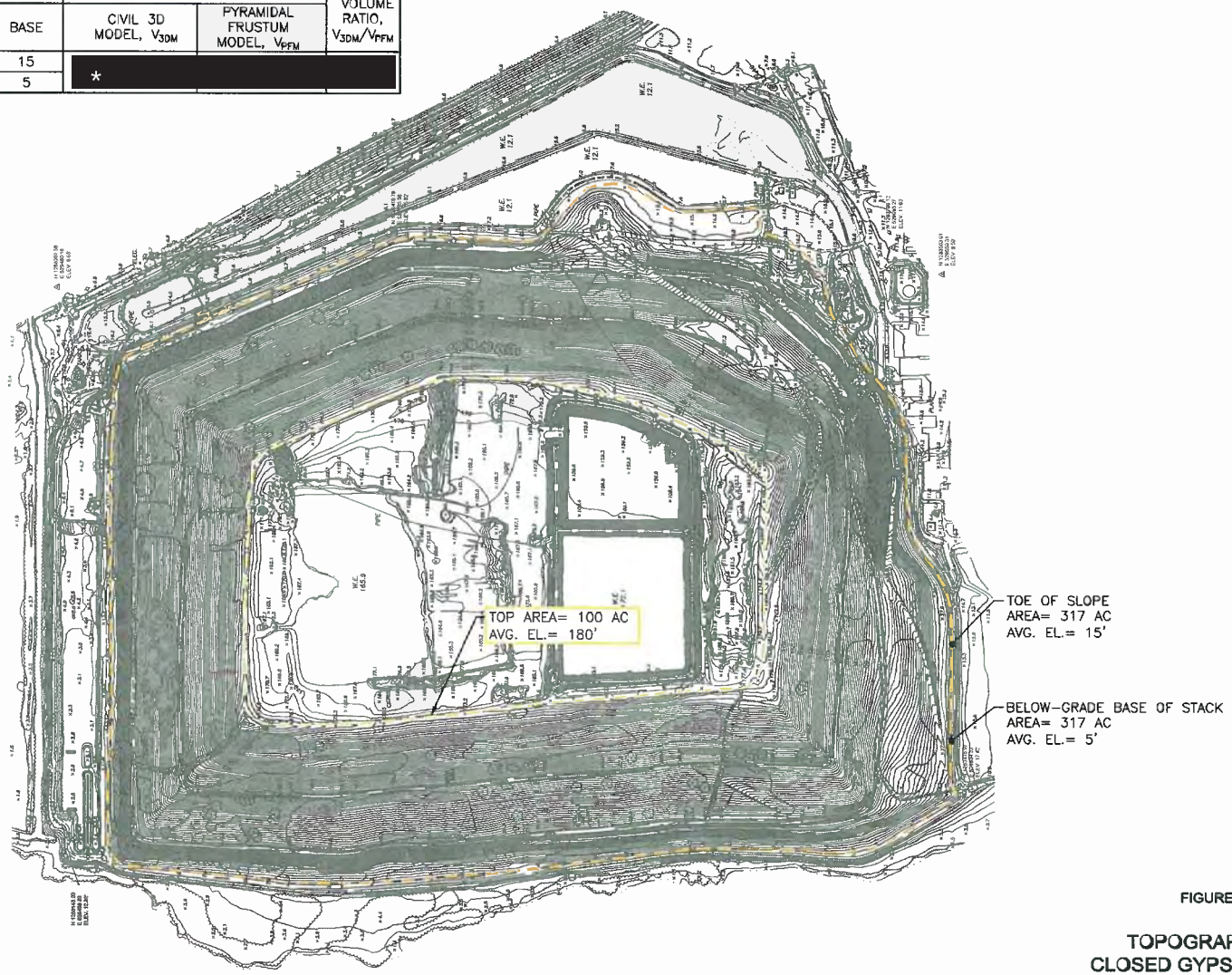


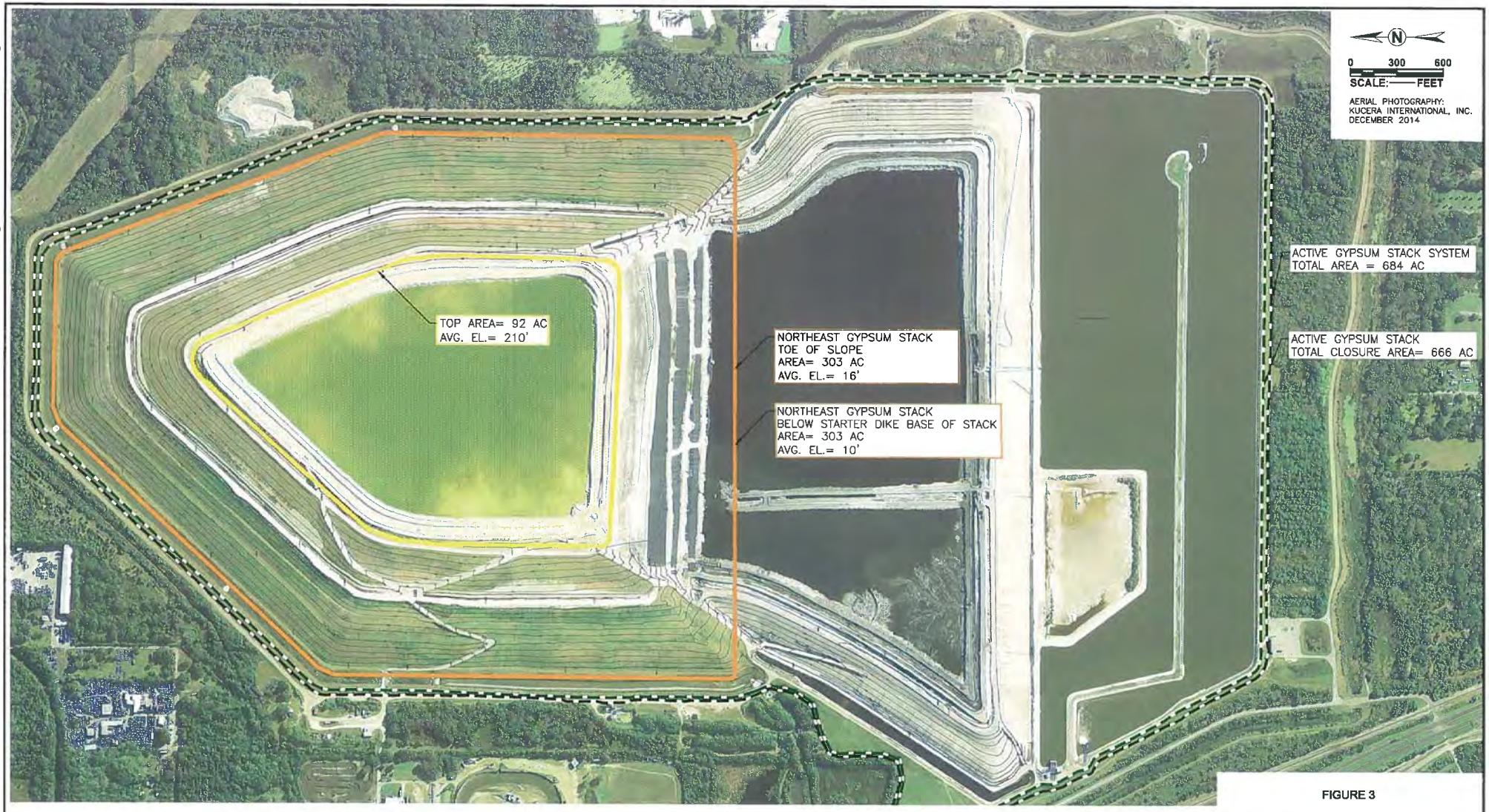
FIGURE 2

TOPOGRAPHY OF CLOSED GYPSUM STACK PRIOR TO CLOSURE

RIVERVIEW FACILITY

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

T:\Corporate\09\09-13-0092X\GYPSUM VOLUME FIGURES\RIVERVIEW_Current Sheet Set\FIGURE 2 TOTAL GYPSUM VOLUME- CLOSED STACK_.stb - UPDATED.dwg 2015/09/22 6:44 PM, Clemons, Richard



	AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
	TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
ABOVE STARTER DIKE	92	303	210	16	*		
BELOW STARTER DIKE	303	303	16	10			

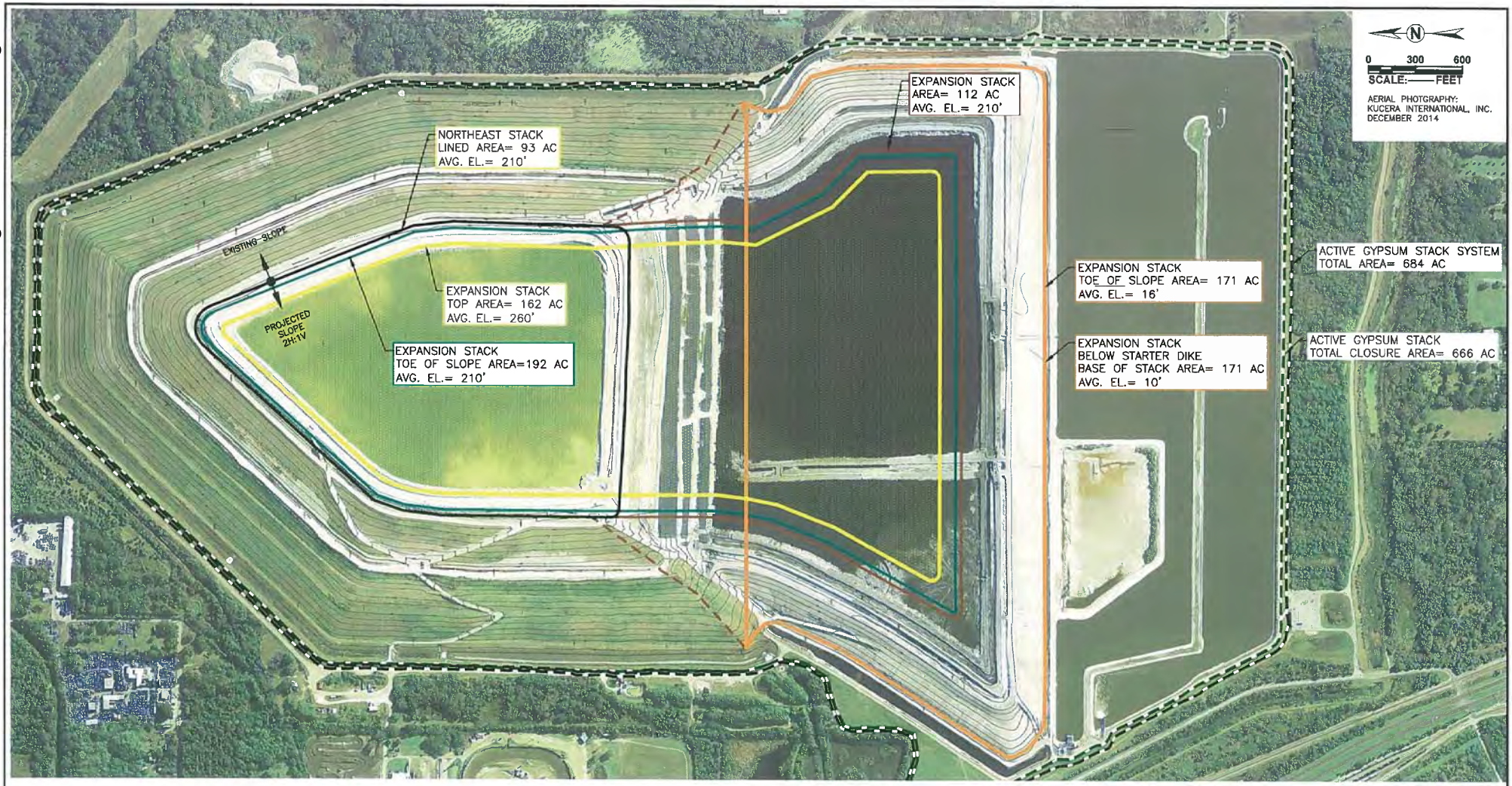
** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

FIGURE 3

NORTHEAST GYPSUM STACK BASE AREA AND TOP AREA AT EL. 210'

RIVERVIEW FACILITY

T:\Corporate\09\09-13-0092X\GYPSUM VOLUME FIGURES\RIVERVIEW_Current Sheet Set\FIGURE 3 NORTHEAST STACK VOLUME.dwg 2015/09/22 6:43 PM, Clemons, Richard



	AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
	TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
ABOVE STARTER DIKE	162	192	260	210	*		
	112	171	210	16			
BELOW STARTER DIKE	171	171	16	10			

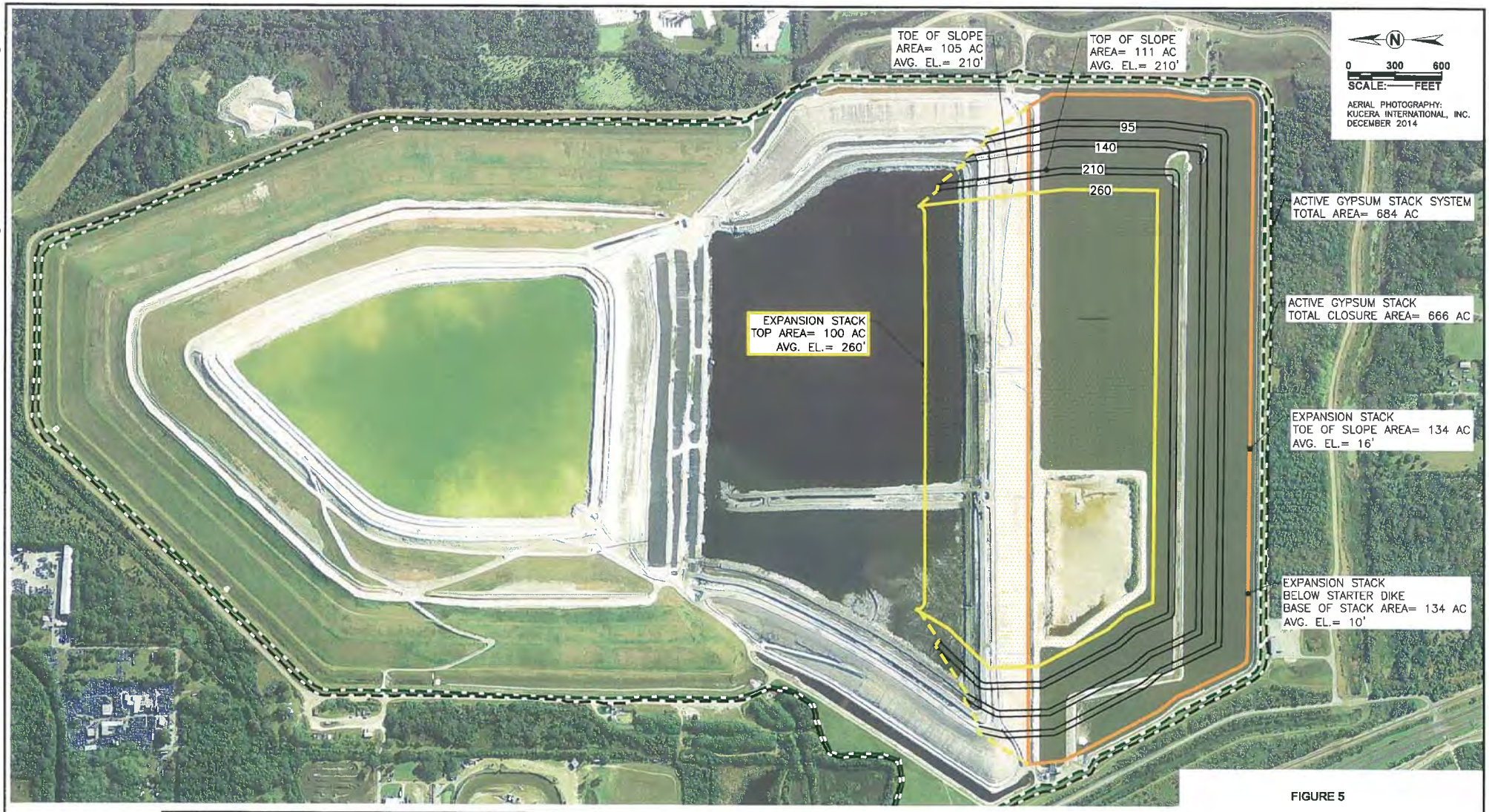
** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

FIGURE 4

CURRENT EXPANSION STACK BASE AREA AND TOP AREA AT EL. 260'

RIVERVIEW FACILITY

T:\Corporate\09\09-13-0092X\GYPSUM VOLUME FIGURES\RIVERVIEW_Current Sheet Set\FIGURE 4 EXPANSION NORTHEAST STACK VOLUME AT EL.260.dwg 2015/09/22 6:42 PM, Clemons, Richard



	AREA (ACRES)		ELEVATION (ft,NGVD)		VOLUME (ACRE-FEET)		VOLUME RATIO, V_{3DM}/V_{PFM}
	TOP	BASE	TOP	BASE	CIVIL 3D MODEL, V_{3DM}	PYRAMIDAL FRUSTUM MODEL, V_{PFM}	
ABOVE STARTER DIKE	100	105	260	210	*		
	111	134	210	16			
BELOW STARTER DIKE	134	134	16	10			

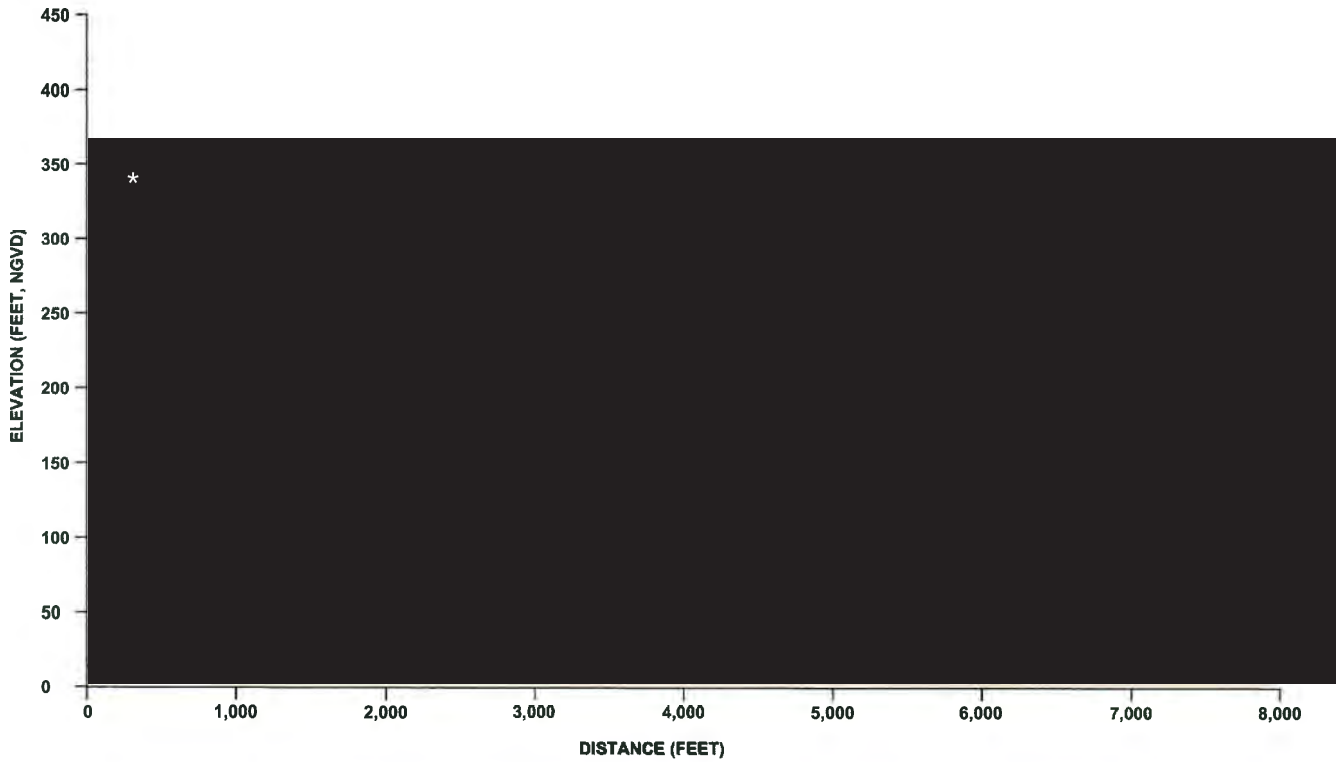
** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

FIGURE 5

EXPANSION STACK INTO COOLING POND BASE AREA AND TOP AREA AT EL. 260'

RIVERVIEW FACILITY

T:\Corporate\08\09-13-0092X\GYPSUM VOLUME FIGURES\RIVERVIEW_Current Sheet Set\FIGURE 5 FUTURE EXTENSION BASE AND TOP AREA AT 260.dwg 2015/09/22 6:40 PM, Clemons, Richard



** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

The planned changes or expansions include dates when construction is currently estimated to begin. These dates are subject to change based on numerous factors, including years for attaining intermediate stack elevations and reaching terminal stack elevations, changes in market conditions, changes in production rates and Mosaic's business plans, and changes to Mosaic's long–term operating plans for the Facilities. In any event, activation of the planned changes or expansions will likely occur approximately 2 years after the beginning of construction.

The planned changes or expansions also include Mosaic's best estimate of the locations, area, and acreage for each planned change or expansion. These estimates are based on Mosaic's projected long–term operating plans and projected availability of rock sources for each Facility. The acreages for planned expansions are based upon either: (1) the lined area and area of surrounding perimeter containment dikes for lateral expansions beyond the existing phosphogypsum stack system footprint; or (2) lined areas atop existing stack surfaces for lateral expansions contained within the existing phosphogypsum stack system.

FIGURE 6

NORTH-SOUTH CROSS SECTION *

RIVERVIEW FACILITY

Attachment H

Representation and Certification

I hereby certify, in my capacity as the Chief Financial Officer of the Mosaic Company, after due diligence, that to the best of my knowledge and belief, The Mosaic Company has the financial resources for the fiscal year beginning _____ and ending _____, to fund the lesser of: (1) $415 million, or (2) the Total Cost Estimate less the sum of: (i) the most recent value of the Florida Phosphogypsum Trust Fund established in accordance with the Consent Decree [*insert Consent Decree name and designation*] and as represented by the Trustee in its most recent valuation statement to the Grantor, (ii) the most recent value of the Louisiana Phosphogypsum Trust Fund established in accordance with the Consent Decree [*insert Consent Decree name and designation*] and as represented by the Trustee in its most recent valuation statement to the Grantor, and (iii) the aggregate value of any other Third-Party Mechanism secured to establish Financial Assurance in accordance with Appendix 2 of the two Consent Decrees.

[Signature] _____

[Name] _____

[Title] Chief Financial Officer

[Date] _____

Attachment I

CORPORATE GUARANTEE

Instructions: The Corporate Guarantee for Phosphogypsum Stack System Closure and Long Term Care, as specified in Appendix 2 of the Consent Decree, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information, if applicable, and the brackets deleted.

Corporate Guarantee for Phosphogypsum Stack System Closure and Long Term Care

Guarantee made this September 28, 2015 by The Mosaic Company, a business corporation organized under the laws of the State of Delaware, herein referred to as "Guarantor." This Guarantee is made on behalf of Mosaic Fertilizer, LLC ("Mosaic Fertilizer") of 3033 Campus Dr., Plymouth, Minnesota 55441, which is our wholly-owned subsidiary, to the United States Environmental Protection Agency ("EPA") and Florida Department of Environmental Protection ("FDEP").

Whereas, pursuant to the Resource Conservation and Recovery Act ("RCRA"), as amended, 42 U.S.C. §§ 6901 et seq., Mosaic Fertilizer has entered into a Consent Decree with EPA and FDEP (dated [*insert date*], Docket No. [*insert case information*]), to resolve the civil claims asserted by EPA, and FDEP by establishing certain injunctive relief, including Financial Assurance, under the Consent Decree;[1]

Whereas, the Effective Date of the Consent Decree is defined in Section XVI (Effective Date) of the Consent Decree;

Whereas, the Consent Decree requires Mosaic Fertilizer to provide Financial Assurance to EPA and FDEP to address Phosphogypsum Stack System Closure and Long Term Care, whenever required to do so, at the Operating and/or Closing Facilities;

Whereas, in order to provide a portion of the Financial Assurance required by the Consent Decree, Mosaic Fertilizer has agreed to provide EPA and FDEP with a Guarantee, issued by the Guarantor, as set forth more fully in this Guarantee, below.

I. Recitals

Now therefore, in consideration of the promises contained herein and for the other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Guarantor agrees to the following:

1. Mosaic Fertilizer owns or operates the Operating and Closing Facilities identified in the Consent Decree covered by this Guarantee:

---

[1] Unless otherwise defined herein, the capitalized items in this Guarantee, including the preamble and recitals, have the meaning provided in the Consent Decree, including Appendix 1 and Appendix 2.

Bartow
3200 State Road South 60 W
Bartow, FL 33830
FLD 003 952 033
[*insert cost estimate information*]

Green Bay Complex
4390 State Road 640 West
Bartow, FL 33830
FLD 043 055 003
[*insert cost estimate information*]

New Wales
3095 County Road 640 West
Mulberry, FL 33860
FLD 084 717 545
[*insert cost estimate information*]

Riverview
8813 Highway 41 South
Riverview, FL 33578
FLD 064 696 107
[*insert cost estimate information*]

South Pierce
7450 County Road 630
Mulberry, FL 33860
FLD 092 980 150
[*insert cost estimate information*]

2. For value received from Mosaic Fertilizer, Guarantor guarantees to EPA and FDEP that, in the event Mosaic Fertilizer fails to perform Phosphogypsum Stack Closure and/or Long Term Care at any or all of the Operating and/or Closing Facilities in accordance with the Initial Phosphogypsum Stack System Closure Plan or Permanent Phosphogypsum Stack System Closure Plan and other terms of the Consent Decree, whenever required to do so, the Guarantor shall do so, or shall establish alternate Financial Assurance in the name of Mosaic Fertilizer in accordance within Section III.A of Appendix 2 (except for Paragraph 10.a.(1)(c)), of the Consent Decree, in an amount at least equal to the Total Florida Cost Estimate less the sum of: (i) the most recent value of the Florida Phosphogypsum Trust Fund established in accordance with Appendix 2 of the Consent Decree and as represented by the Trustee in its most recent valuation statement to Grantor and (ii) the aggregate value of any other Third-Party Mechanism secured to establish Financial Assurance in accordance with Appendix 2 of the Consent Decree ("Florida Financial Assurance Delta").

3. Guarantor shall comply with the reporting requirements of Paragraph 32.h. of Appendix 2 of the Consent Decree, including an annual Representation and Certification from the Chief Financial Officer of Guarantor stating that Guarantor has the financial resources for the next

fiscal year to fund the lesser of: (i) $415 million or (ii) the Financial Assurance Delta.

4. In the event that Guarantor determines, at any time for the duration of the Guarantee, for any reason, that: (i) the Guarantor is unable to meet the terms of the Guarantee, including Recital 2; (ii) the Guarantor is unable to provide the Representation and Certification required under Recital 3 of this Guarantee; (iii) the Guarantor becomes aware of any changes in the Total Cost Estimate or the Guarantor's financial conditions that would invalidate or otherwise be inconsistent with the Representation and Certification; or (iv) the Guarantor becomes aware of any changes in the Total Cost Estimate that would invalidate or otherwise be inconsistent with the Representation and Certification, then Guarantor shall, within five (5) Days of such a determination, provide notice of such determination by certified mail to Mosaic Fertilizer, EPA and FDEP. Such notice shall be admissible in evidence in any litigation and create a presumption that the Guarantor cannot provide the required Representation and Certification, and that the Guarantor cannot perform Phosphogypsum Stack System Closure and/or Long Term Care at the Operating and Closing Facilities or establish alternate Financial Assurance in accordance with Appendix 2 in an amount that is at least equal to the Financial Assurance Delta. The Guarantor may rebut this presumption only by clear and convincing evidence.

5. Any notice provided by Guarantor of Guarantor's inability to comply with the requirements of this Guarantee, shall include a statement of the value of the guaranteed obligations based on current Updated Cost Estimates, and the amount of financial resources that the Guarantor expects to have available for the next fiscal year either to perform Phosphogypsum Stack System Closure and/or Long Term Care activities at the Operating and Closing Facilities or to provide alternate Financial Assurance.

6. Guarantor agrees that, within thirty (30) Days after providing the notice required by Recitals 4 and 5, or after being notified by Mosaic Fertilizer, EPA, or FDEP of a determination that the Guarantor no longer is able to meet its obligations under Recital 2 of this Guarantee or is disallowed from continuing as a Guarantor as specified in Paragraph 32.k. of Appendix 2 because the independent Certified Public Accountant has issued in the report on examination of the Guarantor's audited financial statements an adverse opinion or a disclaimer of opinion, or has failed to provide a Representation and Certification as required pursuant to Recital 3 or provided an invalid Representation and Certification, and if Mosaic Fertilizer during that time has not provided alternate Financial Assurance for the Florida Financial Assurance Delta (including written approval by EPA and FDEP), then Guarantor shall provide alternate Financial Assurance in accordance with Section III.A of Appendix 2 (except for Paragraph 10.a.(1)(c)), in the name of Mosaic Fertilizer, in an amount at least equal to the Florida Financial Assurance Delta. In the event that Mosaic Fertilizer invokes dispute resolution, subject to the terms set forth in Appendix 2, of a determination by EPA or FDEP, Guarantor agrees that it shall be bound by the final outcome of the dispute resolution.

7. In the event that Guarantor provides notice under Recital 4, Guarantor shall make financial resources available to Mosaic Fertilizer to meet its obligation under Paragraphs 32.j. and 32.l. of Appendix 2 of the Consent Decree to establish alternate Financial Assurance in accordance with Section III.A of Appendix 2 (except for Paragraph 10.a.(1)(c)), or to return Mosaic Fertilizer to compliance if EPA approves a compliance plan and schedule pursuant to Section VII (Temporary Non-Compliance) of Appendix 2 of the Consent Decree. Acceptance by EPA and

FDEP of any compliance plan and schedule shall not relieve The Mosaic Company of its obligations under this Corporate Guarantee.

8. In the event that EPA approves a compliance plan and schedule pursuant to Section VII (Temporary Non-Compliance) of Appendix 2 to return Mosaic Fertilizer to compliance with its Financial Assurance obligations under the Consent Decree, and such plan requires the Guarantor to undertake certain activities or provide financial resources, in addition to that specified in Recital 7 above, then Guarantor shall carry out those activities in a timely manner in accordance with the approved compliance plan and schedule.

9. The Guarantor shall notify Mosaic Fertilizer, EPA, and FDEP by e-mail as well as by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming Guarantor as debtor, within twenty-four (24) hours after commencement of the proceeding.

10. Guarantor shall remain bound under this Guarantee notwithstanding any or all of the following: amendment or modification of the Phosphogypsum Stack System Closure Plan or Permanent Phosphogypsum Stack System Closure Plan, as applicable, amendment or modification of the Consent Decree, the extension or reduction of the time of performance of Phosphogypsum Stack System Closure or Long Term Care, or any other modification or alteration of an obligation of Mosaic Fertilizer pursuant to the Consent Decree.

11. Guarantor shall remain bound under this Guarantee for as long as Mosaic Fertilizer must comply with the applicable Financial Assurance requirements of the Consent Decree (including appendices and attachments of the Consent Decree) for the Operating and Closing Facilities, except as provided in Recital 12 of this Guarantee.

12. Guarantor may terminate this Guarantee by sending notice of cancellation by certified mail to Mosaic Fertilizer, EPA, and FDEP, provided that Mosaic Fertilizer or the Guarantor obtains, and EPA and FDEP approves, alternate Financial Assurance in accordance with Section III.A of Appendix 2 (except for Paragraph 10.a.(1)(c)), of the Consent Decree, in an amount at least equal to the Florida Financial Assurance Delta. In the event that Mosaic Fertilizer fails to provide alternate Financial Assurance or obtain EPA's and FDEP written approval of the alternate Financial Assurance, Guarantor agrees and shall provide alternate Financial Assurance in the name of Mosaic Fertilizer. This Guarantee shall not terminate unless and until EPA and FDEP has approved the alternate Financial Assurance in writing and such approved alternate Financial Assurance is in place.

13. Guarantor expressly waives notice of acceptance of this Guarantee by EPA, FDEP, or by Mosaic Fertilizer. Guarantor also expressly waives notice of amendments or modifications of the Phosphogypsum Stack System Closure Plan and/or Permanent Phosphogypsum Stack System Closure Plan and of amendments or modifications of the Consent Decree.

14. Guarantor shall, when required to provide information regarding obligations under federal and state law that are assured through the use of a financial test or a guarantee, include the obligations under this Guarantee.

II. Representations and Affirmations

Guarantor hereby acknowledges, represents and affirms on this date of the Guarantee the following:

15. Guarantor is duly organized and validly existing under the laws of the jurisdiction of its incorporation and is qualified to do business in such jurisdiction and in each jurisdiction in which the Guarantor conducts its business.

16. Guarantor has full power and authority to enter into and execute this Guarantee. This Guarantee has been duly authorized, executed, and delivered by Guarantor.

17. This Guarantee constitutes a legal, valid, and binding obligation of Guarantor, enforceable in accordance with its terms.

18. This Guarantee may be modified by the Parties only with the approval, in the sole discretion and written consent of EPA and FDEP, and otherwise in accordance with the terms of the Consent Decree.

19. The Guarantor is prohibited from assigning, transferring, delegating, or conveying the obligations or the terms of this Guarantee to its successor, another person or entity, or a corporate affiliate, unless after notice to EPA and FDEP, EPA and FDEP, in their sole unreviewable discretion, approve the change in Guarantor.

20. The submittals and notifications required by this Guarantee shall be done in accordance with Section XV (Notices) of the Consent Decree.

21. The Guarantor has been provided with a copy of the Consent Decree and all Appendices and has read and is familiar with the provisions of the Consent Decrees and Appendices.

22. This Guarantee and the rights and obligations of EPA and FDEP and Guarantor shall be governed by and construed in accordance with the laws of the State of Florida and applicable U.S. federal law.

23. This Guarantee shall be in effect as of the Effective Date of the Consent Decree.

I hereby certify that the wording of this Guarantee is identical to the wording required under Attachment D, Form 5-B, of Appendix 2, of the Consent Decree.

Effective date: _____

Name of Guarantor: The Mosaic Company

Authorized signature for Guarantor: _____

Name of person signing: Richard L. Mack

Title of person signing: Executive Vice President and Chief Financial Officer

Signature of witness or notary: _____

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF FLORIDA

UNITED STATES OF AMERICA,	)	
	)	
and	)	
	)	
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION,	)	
	)	
Plaintiffs,	)	Civil Action No. 8:15-cv-02286-JWD-TBM
	)	
v.	)	
	)	
MOSAIC FERTILIZER, LLC,	)	
	)	
Defendant.	)	

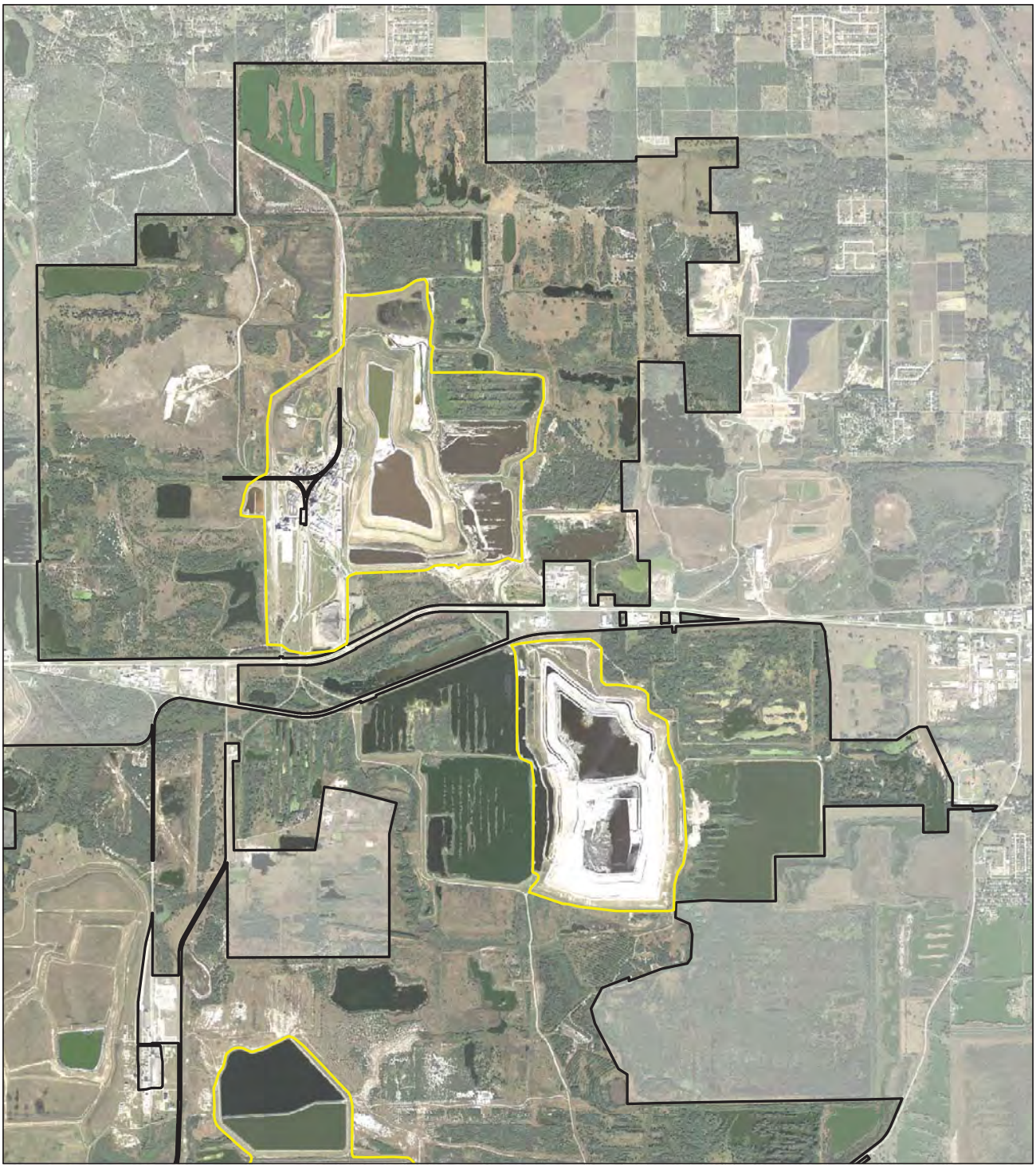
Appendices to the Proposed Consent Decree

Exhibit 2 of 4

Appendices 3 through 6

APPENDIX 3

Bartow



Legend

- Mosaic Owned Property
- Not Owned by Mosaic
- Approximate Boundary Manufacturing Area & Phosphogypsum Stack System (Including EDI)

Mosaic Aerial Photograph December 2014

Mosaic

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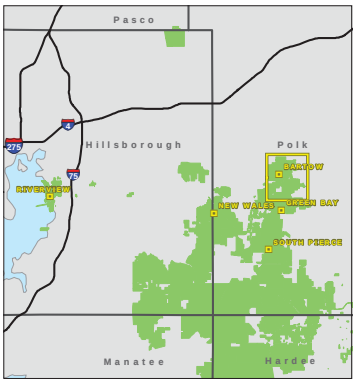
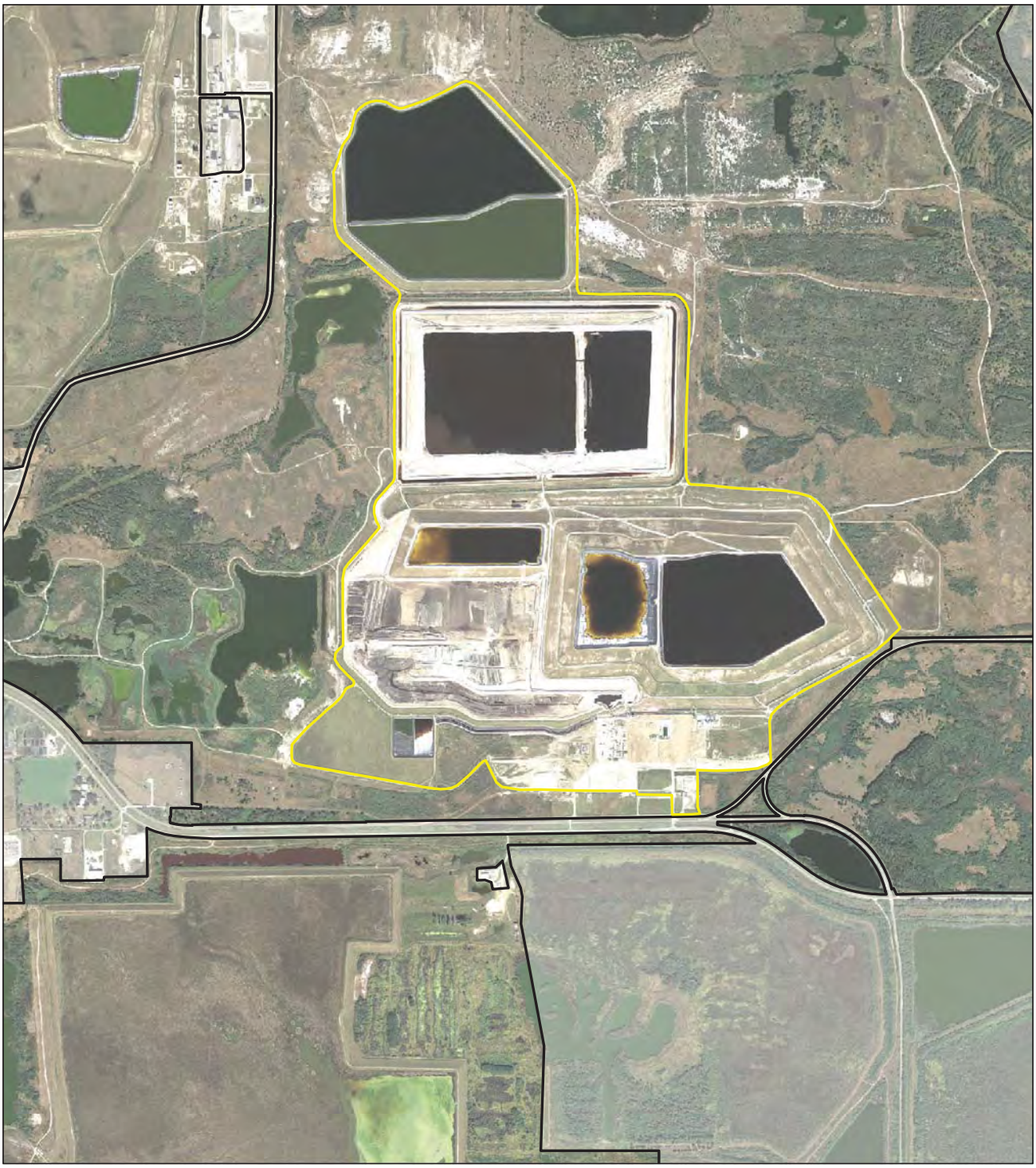
Location Key



Green Bay



Legend

- Mosaic Owned Property
- Not Owned by Mosaic
- Approximate Boundary Manufacturing Area & Phosphogypsum Stack System

Mosaic Aerial Photograph December 2014

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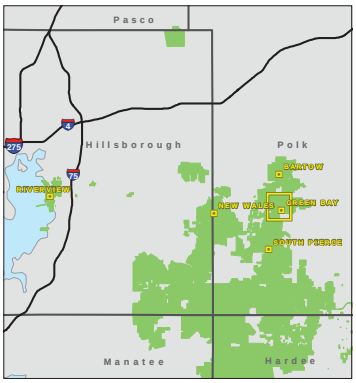
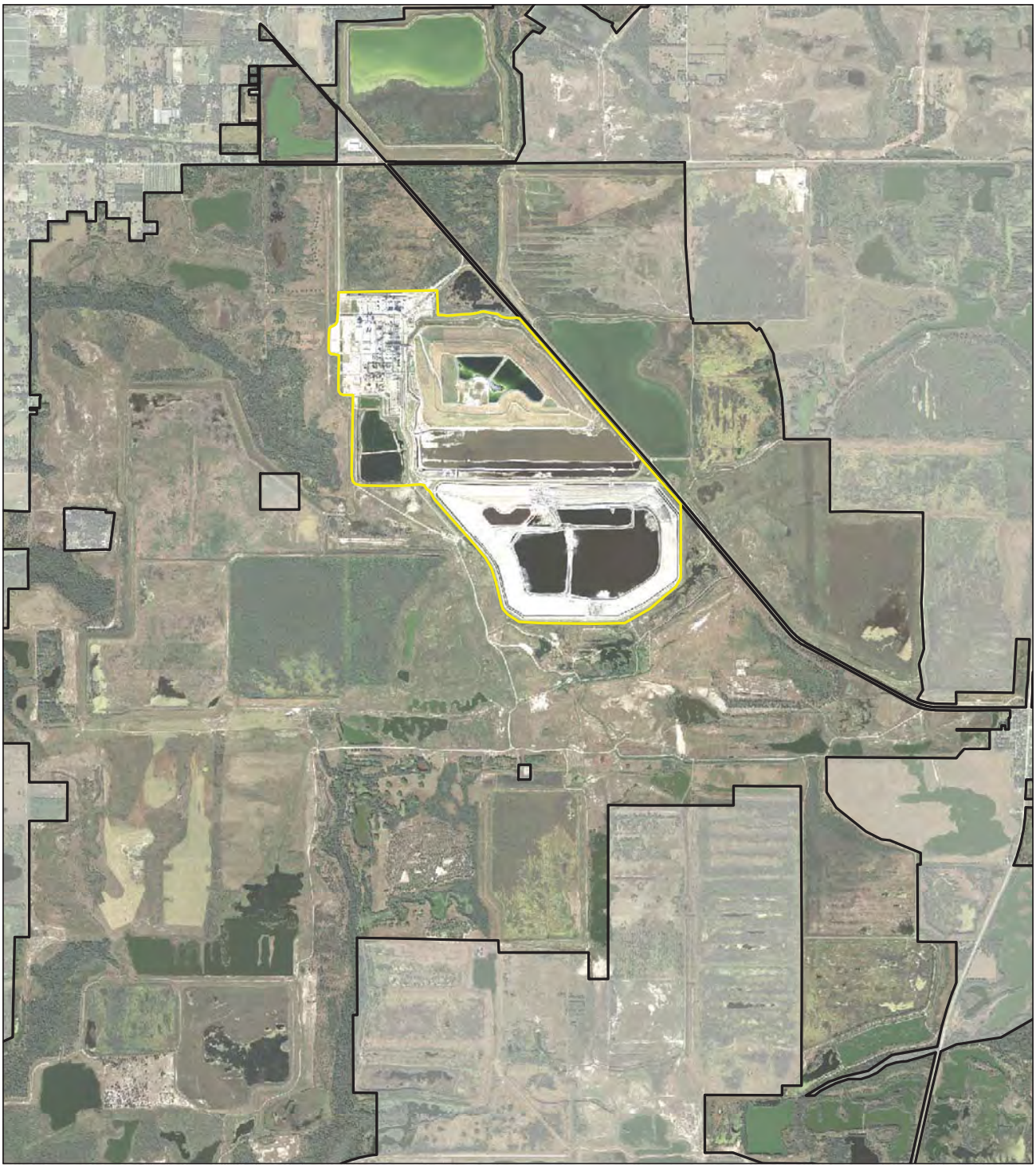


New Wales



Legend

- Mosaic Owned Property
- Not Owned by Mosaic
- Approximate Boundary of Manufacturing Area & Phosphogypsum Stack System

Mosaic Aerial Photograph December 2014

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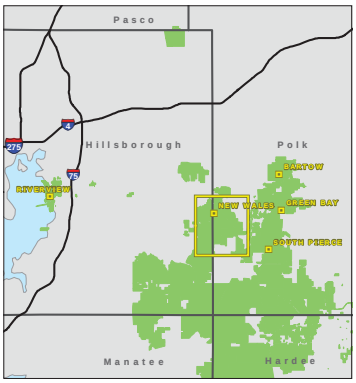
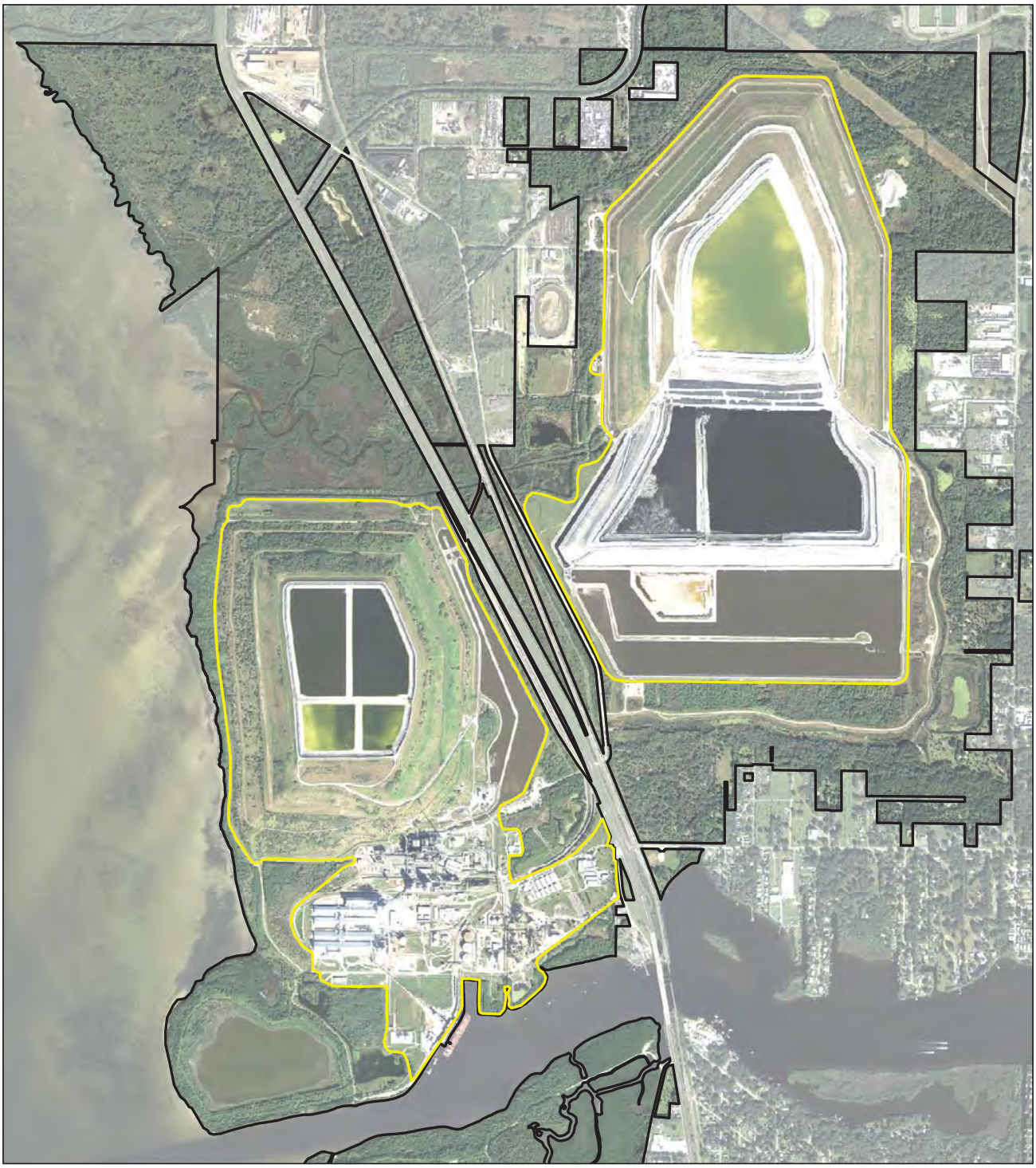


Riverview



Legend

- Mosaic Owned Property
- Not Owned by Mosaic
- Approximate Boundary Manufacturing Area & Phosphogypsum Stack System

Mosaic Aerial Photograph December 2014
Note: Map does not show Submerged Lands.

Mosaic

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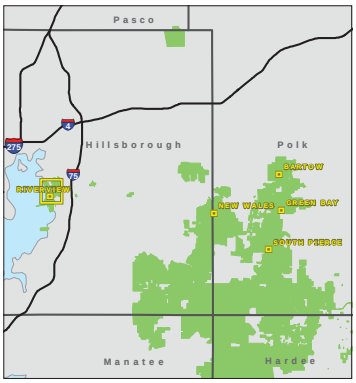
Location Key



South Pierce

Legend

- Mosaic Owned Property
- Not Owned by Mosaic
- Approximate Boundary Manufacturing Area & Phosphogypsum Stack System

Mosaic Aerial Photograph December 2014

Mosaic

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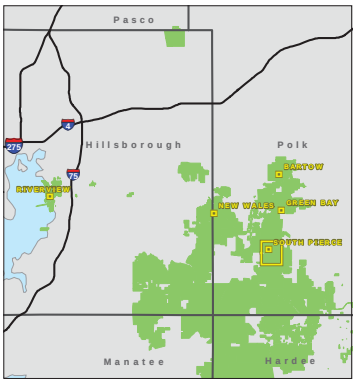
Location Key



APPENDIX 4

September 8, 2015

APPENDIX 4
FACILITY REPORT
BARTOW COMPLEX
EXECUTIVE SUMMARY

These summary tables provide an overview of the Upstream, Downstream, Mixed-Use, Grandfathered, and Recovery Units at Mosaic Fertilizer, LLC's (Mosaic) Bartow Facility. For Upstream Operations, the table only includes tanks that store phosphoric acid prior to the generation of the First Saleable Product. Piping associated with those tanks is considered part of Upstream Operations unless designated otherwise in the Facility Report. Nothing in these summary tables overrides subsequent details provided in diagrams and text.

Table 1: Unit Designations

Units in Upstream Operations			
Tank Name	Tank No. from Figure 13	Phosphoric Acid Service (%)	Alternate Name(s)/Asset Numbers
Attack Tank V-Train	0001	30	***#4 Acid Attack Tank***[1]; AS4; Phosphoric Acid Reactor V or 4 Reactor
Attack Tank U-Train	0002	30	***#5 Acid Attack Tank***; AS5; Phosphoric Acid Reactor U or 5 Reactor
#3 Filter Filtrate Tank	0003	30	***Vacuum Filter #3*** *or* F3A
#4 Filter Filtrate Tank	0004	30	***Vacuum Filter #4*** *or* F4A
#5 Filter Filtrate Tank	0005	30	***Vacuum Filter #5*** *or* F5A
Gyp Tank 3/4	0004	30	***Gypsum Slurry Tank***
Gyp Tank 5	0005	30	***Gypsum Slurry Tank***
30A Tank	0006	30	***28% Sludge Tanks***; C3T30A or 30A Sludge Tank
30B Tank	0007	30	***28% Sludge Tanks***; C3T30B or 30B Sludge Tank
30C Tank	0008	30	***28% Acid Clarifier Feed Tanks***; C3T30C or 30C Clarifier Feed Tank

[1]Names in bold italic font are found in the Bartow Phosphoric Acid Facility's Block Flow Diagram (**Table 1**).

30D Tank	0009	30	***28% Acid Clarifier Feed Tanks***; C3T30D or 30D Clarifier Feed Tank
31A Clarifier	0010	30	***28% Acid Clarifiers***; C3T31A or 30% Clarifier Tank A
31B Clarifier	0011	30	***28% Acid Clarifiers***; C3T31B or 30% Clarifier Tank B
31C Clarifier	0012	30	***28% Acid Clarifiers***; C3T31C or 30% Clarifier Tank C
31D Clarifier	0013	30	***28% Acid Clarifiers***; C3T31D or 30% Clarifier Tank D
32B Tank	0014	30	***28% Transfer Tanks;*** C3T32B or 30% Acid Clarifier North Overflow Tank B
32A Tank	0015	30	***28% Transfer Tank;*** C3T32A or 30% Acid Clarifier South Overflow Tank A
40% Clarifier	0028	40	C4T43 or 43 Clarifier
1st Stage Evaporators A/B/C/D/E (5 units)		30-40	A Evap; B Evap; C Evap; D Evap; E Evap
2nd Stage Evaporator 1/2/3/4/5/6/7 (7 units)		40-54	1 Evap; 2 Evap; 3 Evap; 4 Evap; 5 Evap; 6 Evap and 7 Evap
#4 Fume Scrubber		N/A	APCD or P4V602
43 Fume Scrubber		N/A	***Scrubber***; C4V44 or 40% Clarifier Scrubber or APCD

Mixed Use Units			
Tank Name	Tank No. from Figure 13	Phosphoric Acid Service (%)	Alternate Name(s)/ Asset Numbers
33B Tank	0017	30	***1st Stage Evaporator Feed Tanks***; C3T33B or 30% North Acid Tank 33B
33A Tank	0018	30	***1st Stage Evaporator Feed Tank;*** C3T33A or 30% South Acid Tank 33A

40 Tank	0024	40	***40% Clarifier Feed Tank***; C4T40 or 40% Evaporator Product Storage Tank
42 Tank	0025	40	***2nd Stage Evaporator Feed Tank***; C4T42 or 40% Clarified Acid Storage Tank
50 Tank	0020	54	***54% Clarifier Feed Tank***; C5T50T or 50% Evaporator Product Tank
54% Clarifier	0022	54	C5T52; 52 Tank or 52 Clarifier
#3 Fume Scrubber		N/A	F3V602 or APCD
#5 Fume Scrubber		N/A	P5V602 or APCD
50% Fume Scrubber		N/A	C5V803 or APCD

BHT Recovery Units (Tanks)				
Tank Name	Figure No.	Tank Number or Name	Type of Service Phosphoric Acid (%) or Other	Alternate Name(s)
34A Tank	Figure 6	34A	30	D3T34A or #3 DAP/MAP 30% Acid Storage
54A Tank	Figure 6	4A	54	D3T54A or #3 DAP/MAP 50% Acid Storage
54B Tank	Figure 6	54B	54 or 30	D3T54B or #3 DAP/MAP 50% Acid Storage
35A Tank	Figure 7	35A	30	D4T35A or #4 DAP 30% Acid Storage
35B Tank	Figure 7	35B	30	D4T35B or #4 DAP 30% Acid Storage
55A Tank	Figure 7	55A	54	D4T55A or #4 DAP 50% Acid Storage
55B Tank	Figure 7	55B	54	D4T55B or #4 DAP 50% Acid Storage
FSA Storage Tank	Figure 13	0026	FSA	C4T80 or 80 Tank
FSA Day Tank	Figure 13	0027	FSA	81 Tank or C4T81
53 Tank	Figure 13	0023	54	***50% Acid Feed Tank*** or C5T53
Pond Water Neutralization Tank	Figure 8		Neutralized Process Wastewater	

5% Sulfuric Acid Wash Tank	Figure 13	0030	Cleaning solution	P5T400
Big Holding Tank (BHT)	Figure 13	Location TBD	Cleaning solution	
Back-up BHT	Figure 13	Location TBD	Cleaning Solution	

BHT Recovery Units (Transfer Lines)				
Line Name	Figure No.	Service	From	To
Tank Loading Line	Figure 3	54	55A Tank or 55B Tank	Truck Loading
North Truck Unloading Pump	Figure 4	54	Truck	55A Tank or 55B Tank
South Truck Unloading Pump	Figure 4	54	Truck	55A Tank or 55B Tank
"DAP1"Transfer Line	Figure 6 Figure 7	30	33A Tank and 33B Tank	34A Tank (#3 DAP/MAP) or 35A Tank (#4 DAP) or 35B Tank (#4 DAP)
"DAP2" Transfer Line	Figure 6 Figure 7	30	33A Tank and 33B Tank	34A Tank (#3 DAP/MAP) or 35A Tank (#4 DAP) or 34B Tank (#4 DAP)
"53A" Transfer Line	Figure 6; Figure 7	54	53 Tank or 50 Tank	55A or 55B Tank (#4 DAP)
"53B" Transfer Line	Figure 6 Figure 7	54	53 Tank or 50 Tank	55A or 55B Tank (#4 DAP) or 54A or 54B Tank (#3 DAP/MAP)
"53C" Transfer Line	Figure 6	54 or 54 sludge	53 Tank or 50 Tank or 54 clarifier	54A or 54B Tank (#3 DAP/MAP)
FSA Shipping Line	Figure 5	FSA	FSA Storage Tank (Tank 80)	Truck Loading
FSA Transfer Line	-	FSA	FSA Day Tank	FSA Storage Tank

Grandfathered Units (Tanks)			
Tank Name	Tank No. from Figure 13	Phosphoric Acid Service (%)	Alternate Name(s)

FSA Swift Towers	0029	FSA	*FSA Recovery #5 Evaporator*
FSA Scrubber Seal Tank	0029	FSA	E5T401; ***2nd Stage Evap. #5 FSA Seal Tank*** or FSA Recirculating Tank

GHT Recovery Units			
Tank Name	Tank No.	Service	Alternate Name(s)
Granular Holding Tank ("GHT")			
GHT Recovery Units described in Section V.B below.			

APPENDIX 4
FACILITY REPORT

MOSAIC FERTILIZER, LLC
BARTOW COMPLEX
BARTOW, FLORIDA
EPA ID NO. FLD 003 952 033

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I. Introduction

All capitalized terms not otherwise defined in this Facility Report shall have the meaning set forth in the Consent Decree.

A. Purpose

The purposes of this Facility Report are to:

1. Identify Mosaic Fertilizer, LLC's (Mosaic) Upstream Operations (Upstream) and Downstream Operations (Downstream) at its Bartow Facility (Mosaic Bartow), its Mixed-Use air pollution control devices (APCDs), and Mixed-Use tanks, pipes, and other ancillary equipment involved in the production of phosphoric acid.
2. Identify certain units associated with Downstream Operations from which the cleaning wastes may be managed with wastes from Upstream Operations due to the particular configuration of the Facility (Grandfathered Units).
3. Identify compliance projects set forth in Section VI. Compliance Projects of this Report, including the Big Holding Tank (BHT) and the Granular Holding Tank (GHT).
4. Identify certain Downstream Units associated with Mosaic's BHT project (BHT Recovery Units). Waste streams from these units will be recovered into Upstream Operations as designated in this Report or to the BHT in accordance with Section VI. Compliance Projects of this Report.
5. Identify certain Downstream Units associated with Mosaic's GHT project (GHT Recovery Units). Waste streams from these units will be recovered in the Granulation process as designated in this Report or to the GHT in accordance with Section VI. Compliance Projects of this Report.
6. Address phosphoric acid product spills and leaks in accordance with Section VII. Containment of Phosphoric Acid Product Spills and Leaks of this Report.
7. Identify categories of future equipment installations, some wastes from which may be co-managed with Bevill Exempt wastes when meeting the conditions set forth in Sections IX. Proposed Phosphoric Acid Production-Related Operations and X. Non-Phosphoric Acid Proposed Projects and XI. Authorized Future Installations of this Report.

Hazardous wastes generated from the production of sulfuric acid, wastes related to the transport of sulfuric acid to the phosphoric acid plant, and wastes generated from the cleaning of sulfuric acid transportation-related equipment are not within the scope of this Report.

B. Overview[2]

A major purpose of the Facility Report is to specify how Mosaic shall handle wastes from designated units at the Bartow Facility. For the units designated as part of Upstream or Downstream Operations or identified as Mixed-Use, Grandfathered, Big Holding Tank (BHT) Recovery or Granular Holding Tank (GHT) Recovery Units, wastes shall be handled as described below. The potential influents to the designated units are: BHT Effluent, Fluorosilicic Acid (FSA), Fluorosilicic Acid Cleaning Solution (FSACS), GHT Effluent, Non-Hazardous Aqueous Cleaning Solution (NHACS), Phosphogypsum Stack System Wastewater, Phosphoric Acid Cleaning Solution (PACS), Process Wastewater, Sulfuric Acid Cleaning Solution (SACS) and spills and leaks of phosphoric acid, sulfuric acid, and FSA in Containable Impervious Areas.

A. Wastes generated from Upstream/Mixed-Use/Grandfathered Operations.

1. Cleaning Solutions Wastes.
    a. If NHACS, Phosphogypsum Stack System Wastewater, and/or Process Wastewater have been used to clean these units, the wastes from these units may be input to Upstream Operations or discharged to the Phosphogypsum Stack System.

    b. Prior to commencement of the BHT, if FSACS, SACS, or PACS are used to clean these units, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following commencement of operations of the BHT, if FSACS, SACS, PACS or BHT Effluent are used to clean these units, the wastes from these units may be input to the BHT for use in Upstream Operations in accordance with Section VI. Compliance Projects of this Report, except in the case of a BHT process upset (see below).

    c. Following commencement of operations of the BHT, if Mosaic does not utilize the BHT to recover cleaning wastes identified in (b) above, or if any cleaning solutions other than those listed in (a) & (b) above are used to clean these units, Mosaic shall make a RCRA hazardous waste determination and manage the wastes in accordance with RCRA.

[2] This Overview Section summary is provided solely for informative purposes and does not replace, modify, or supersede the provisions specified in the Consent Decree or the substantive terms in the succeeding sections of this Report.

2. Scrubber Wastes. Wastes from normal operations (i.e., scrubber effluent) may be input to Upstream Operations or discharged to the Phosphogypsum Stack System. Scrubber cleaning wastes must be managed as described in 1.above.

3. Spills and Leaks. These are handled in accordance with the BMP and Section VII. Containment of Phosphoric Acid Product Spills and Leaks of this Report. Spills and leaks of phosphoric acid, sulfuric acid, FSA, SACS, PACS, FSACS or BHT Effluent in Containable Impervious Areas may be returned to a tank with similar material or input to the BHT for use in Upstream Operations in accordance with Section VI. Compliance Projects of this Report. Spills and leaks of Process Wastewater, Phosphogypsum Stack System Wastewater or NHACS in Containable Impervious Areas may also be returned to the BHT, when these spills and leaks are mixed with phosphoric acid, sulfuric acid, FSA, SACS, PACS, FSACS or BHT Effluent.

B. Wastes generated from BHT and BHT Recovery Units.

1. BHT Recovery Units. Prior to commencement of the BHT, if SACS, PACS, FSACS, NHACS, Process Wastewater, or Phosphogypsum Stack System Wastewater are used to clean BHT Recovery Units, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following commencement of operations of the BHT, if SACS, PACS, FSACS, NHACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or BHT Effluent are used to clean BHT Recovery Units, the wastes from these units may be input to the BHT for use in Upstream Operations in accordance with Section VI. Compliance Projects of this Report or managed in accordance with Section 2. Phosphoric Acid Plant Cleaning Procedures (Phosphoric Acid Tank and Equipment Cleaning – BHT Recovery Units) and Section 3. Granulation Plants Cleaning Procedures of the Best Management Practices Plan (BMP).

2. BHT. Influents to the BHT are limited to the following: (i) wastes generated from the use of SACS, PACS, FSA, FSACS, NHACS, Phosphogypsum Stack System Wastewater, Process Wastewater, and BHT Effluent; (ii) spills and leaks of phosphoric acid, sulfuric acid, and FSA in Containable Impervious Areas; (iii) sulfuric acid for SACS make-up; (iv) spills and leaks per A.3 above; and (v) GHT Effluent. BHT operation is described in Section VI. Compliance Projects, A.2. Project Operations of this Report. BHT Effluent may be input to Upstream Operations or used for cleaning of the BHT Recovery Units and returned to the BHT. The BHT itself is designated a BHT Recovery Unit, and therefore for wastes generated from cleaning the BHT itself, see B.1 above.

3. Process Upset. In the event of a process upset that prevents the recovery of cleaning solutions via the BHT, then Mosaic (1) shall not discharge to the

Phosphogypsum Stack System any SACS, PACS, BHT Effluent, FSA, or FSACS used in cleaning those units affected by the process upset; and (2) shall make a RCRA hazardous waste determination of any cleaning wastes generated from BHT Recovery Units and manage such wastes in accordance with RCRA.

C. Wastes generated from Granular Holding Tank (GHT) and GHT Recovery Units.

1. GHT Recovery Units. Prior to commencement of the GHT, if SACS, PACS, NHACS, Process Wastewater, or Phosphogypsum Stack System Wastewater are used to clean GHT Recovery Units, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following commencement of operations of the GHT, if SACS, PACS, NHACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or GHT Effluent are used to clean GHT Recovery Units, the wastes from these units may be input to the GHT for use in Downstream Operations in accordance with Section VI. Compliance Projects of this Report or managed in accordance with Section 3. Granulation Plants Cleaning Procedures of the BMP.

2. GHT. Influents to the GHT are limited to the following: (i) Phosphogypsum Stack System Wastewater, Process Wastewater, Non-Hazardous Aqueous Solution, wastes generated from SACS, PACS, and GHT Effluent; (ii) spills and leaks of phosphoric acid, sulfuric acid, SACS, PACS, or GHT Effluent in Containable Impervious Areas; and (iii) spills and leaks of Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS, when these spills and leaks are mixed with phosphoric acid, sulfuric acid, SACS, PACS, or GHT Effluent. GHT operation is described in Section VI. Compliance Projects, B. 2. Project Operations of this Report. If GHT Effluent is not reused or transferred to the BHT in accordance with Section VI. Compliance Projects of this Report, Mosaic shall manage GHT Effluent as described in Section 6. Cleaning Solution System Operation of the BMP. The GHT itself is designated a GHT Recovery Unit, and therefore for wastes generated from cleaning the GHT itself, see C.1 above.

3. Process Upset. In the event of a process upset that prevents the recovery of cleaning solutions via the GHT, then Mosaic shall make a hazardous waste determination of cleaning wastes generated from those units affected by the process upset and manage them in accordance with RCRA.

D. Wastes generated from Downstream Operations only.

Prior to commencement of the GHT or BHT, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following the commencement of the operation of the GHT and BHT, if the Downstream wastes are not sent to the GHT or BHT for recovery and reuse, Mosaic shall make a hazardous waste determination of such wastes and manage them in accordance with RCRA. Following the commencement of the operation of the GHT and BHT, downstream scrubber effluent shall not be discharged to the Phosphogypsum Stack System.

II. Background[3]

Mosaic Bartow's primary commercial products are the solid ammoniated phosphate fertilizers: monoammonium phosphate (MAP), diammonium phosphate (DAP), and MicroEssentials® (MES), as well as fluorosilicic acid (FSA). DAP is manufactured in two production trains designated as #3 DAP/MAP and #4 DAP. MAP and MicroEssentials® are produced in #3 DAP/MAP. Ammonia and phosphoric acid are the primary reactants for MAP, DAP, and MicroEssentials® and are consumed in the production of ammoniated fertilizers on-site.

Phosphoric acid is produced by the digestion of phosphate rock with sulfuric acid. Mosaic Bartow manufactures phosphoric acid in one production plant with two distinct reactors on-site. The reaction yields phosphoric acid and phosphogypsum (gypsum). Gypsum is filtered from the phosphoric acid on rotating pan filters, slurried with Process Wastewater in gypsum slurry tanks, and the resultant slurry is pumped to a lined Phosphogypsum Stack (gypstack). Because the production of phosphoric acid is a water-intensive process and water is used throughout the process (e.g., as acid dilution water, in the ball mills, evaporators, condensers and as a pipe and tank cleaning agent), approximately 1.6 billion gallons of Process Wastewater is constantly stored in, and circulating throughout, the facility's Phosphogypsum Stack System.

Mosaic Bartow deposits slurried gypsum in a 60-mil high density polyethylene (HDPE) lined Phosphogypsum Stack located southeast of the facility, south of US Hwy 60. The lined Phosphogypsum Stack operates in conjunction with the existing Phosphogypsum Stack System.

Mosaic Bartow's Phosphogypsum Stack System is partially lined with 100-mil or 80-mil HDPE. Mosaic Bartow operates the Phosphogypsum Stack System under an Industrial Wastewater Facility Permit issued by the Florida Department of Environmental Protection (FDEP).

[3] This Background Section is provided solely for informative purposes and is not a definitive or exhaustive description of the Facility or its operations.

III. First Saleable Products at Mosaic Bartow

The line marking the division between Upstream and Downstream Operations lies at the point of generation of the First Saleable Product. Mosaic Bartow generates three first saleable products used as direct feedstocks to MAP, MicroEssentials® or DAP production:

1) 30% phosphoric acid that is routed to MAP/DAP rather than to further concentration steps
2) 54% clarified phosphoric acid (greater than 1% solids)
3) 54% unclarified phosphoric acid (sludge)

Downstream Operations at Mosaic Bartow are associated with the storage, transport or use of these First Saleable Products in MAP/DAP and MicroEssentials® operations. Intermediary between the production of 30% acid and the production of 54% clarified acid, Mosaic Bartow recovers fluoride vapors to produce Fluorosilicic Acid (FSA) as a First Saleable Product.

IV. Phosphoric Acid and FSA Production – Phosphoric Acid Plant

Figure 13 identifies Upstream Operations, BHT Recovery Units, Mixed-Use Units, and Grandfathered Units within Mosaic Bartow's Phosphoric Acid Plant.

Mosaic Bartow's Phosphoric Acid Plant has approximately 95% impervious surfaces and approximately 20% of the Plant has 40-mil HDPE liner installed below the concrete. Below-grade concrete trenches and pipelines throughout the Plant convey Process Wastewater from the Plant to the Phosphogypsum Stack System at a flow rate of approximately 50,000 – 60,000 GPM. The main Process Wastewater return ditches within the plant are composed of high performance concrete.

A. Standard Acid Flow Configuration

The Phosphoric Acid Plant produces three concentrations of phosphoric acid for use in fertilizer manufacturing: 30% P_2O_5, 40% P_2O_5, and 54% P_2O_5[4,5]. The 30% acid that is not used directly as feedstock to fertilizer manufacturing is further processed to 54% P_2O_5 in Upstream Operations. The standard phosphoric acid manufacturing process described below is illustrated in process flow diagram (Figure 2). Deviations from the standard acid flow configuration are necessary on periodic short-term intervals.

Mosaic Bartow produces phosphoric acid in two reactors designated as the Phosphoric acid Reactor V-Train ("Attack Tank V-Train") and the Phosphoric acid Reactor U-Train ("Attack

[4] Note that although the terms P_2O_5 and phosphoric acid (H_3PO_4) are used interchangeably, the concentrations are not interchangeable. Mosaic manufactures phosphoric acid, however, in this document we refer to the concentration of the acid in terms of P_2O_5 concentration, rather than phosphoric acid concentration. P_2O_5 concentration can be converted to an approximate concentration of phosphoric acid by multiplying by 1.3808. Phosphoric acid is converted to an approximate concentration of P_2O_5 by multiplying by 0.7242.

[5] All phosphoric acid concentrations are approximate and fluctuate slightly.

Tank U-Train"). The acid from both reactors mixes at the 30% Clarifier Feed Storage Tank "C" ("30C Tank"- C3T30C) and the 30% Clarifier Feed Storage Tank "D" ("30D Tank"- C3T30D). Prior to mixing at the 30C Tank (C3T30C) and 30D Tank (C3T30D), the acid flows as follows:

Phosphoric acid Reactor V-Train (Upstream Operations): Post-reactor, unclarified 30% acid is pumped to the #1 Filtrate Tank of #3 Filter and then either to the 30C Tank (C3T30C) or the 30D Tank (C3T30D);

Phosphoric acid Reactor U-Train (Upstream Operations): Post-reactor, unclarified 30% acid is pumped to the #1 Filtrate Tank of either #4 or #5 Filter and then either to the 30C Tank (C3T30C) or the 30D Tank (C3T30D);

1) 30% Acid Processed to 30% Clarification (Upstream Operations)

- 30% acid from the 30C Tank (C3T30C) and the 30D Tank (C3T30D) is pumped to either the 30% Clarifier Tank "A" ("31A Clarifier" - C3T31A), 30% Clarifier Tank "B" ("31B Clarifier"- C3T31B), 30% Clarifier Tank "C" ("31C Clarifier"- C3T31C), or 30% Clarifier Tank "D" ("31D Clarifier"- C3T31D);

- Underflow (solids) from the 31A Clarifier (C3T31A), 31B Clarifier (C3T31B), 31C Clarifier (C3T31C), and 31D Clarifier (C3T31D) is pumped to either the 30% Clarifier Sludge Storage Tank "A" ("30A Tank"- C3T30A) or the 30% Clarifier Sludge Storage Tank "B" ("30B Tank"- C3T30B) which are then pumped to the Phosphoric acid Reactor V-Train and Phosphoric acid Reactor U-Train for acid recovery;

- Overflow (clarified acid) from the 31A Clarifier (C3T31A) and 31B Clarifier (C3T31B) is gravity fed to the 30% Acid Clarifier South Overflow Tank A ("32A Tank"- C3T32A) and is pumped either to:
  1. 30% South Acid Tank 33A ("33A Tank" - C3T33A) via either the "32A" pump and transfer line or "32B" pump and transfer line; and/or
  2. 30% North Acid Tank 33B ("33B Tank"- C3T33B) via either the "32A" pump and transfer line or "32B" pump and transfer line;

- Overflow (clarified acid) from the 31C Clarifier (C3T31C) and 31D Clarifier (C3T31D) is gravity fed to the 30% Acid Clarifier North Overflow Tank B ("32B Tank "- C3T32B) and is pumped either to:
  1. 33A Tank (C3T33A) via either the "32C" pump and transfer line or "32D" pump and transfer line; and/or
  2. 33B Tank (C3T33B) via either the "32C" pump and transfer line or "32D" pump and transfer line;

2) Clarified 30% Acid Processed to 40% Clarification (Upstream Operations) or as Feedstock to DAP/MAP (Downstream Operations)

- Clarified 30% acid is pumped from the 33A Tank (C3T33A) and 33B Tank (C3T33B) to the following Upstream Operation:

1. 1st Stage Evaporators A, B, C, D, and E, where it is concentrated to 40% acid;

and/or to the following Downstream Units (See BHT Recovery Units):

1. #3 DAP 30% Acid Storage ("34A Tank" - D3T34A) via either the "DAP1" Transfer pump and line or the "DAP2" Transfer pump and line;
2. #4 DAP 30% Acid Storage ("35A Tank" - D4T35A) via either the "DAP1" Transfer pump and line or the "DAP2" Transfer pump and line;
3. #4 DAP 30% Acid Storage ("35B Tank" - D4T35B) via either the "DAP1" Transfer pump and line or the "DAP2" Transfer pump and line;

- 40% acid from the 1st Stage Evaporators (A, B, C, D, and E) is pumped to the 40% Evaporator Product Storage Tank ("40 Tank"- C4T40) or the 40% Clarified Acid Storage Tank ("42 Tank" - C4T42) and then to the 40% Clarifier ("43 Clarifier" - C4T43) (Upstream);

- Underflow (solids) from the 43 Clarifier (C4T43) is pumped to either the 30C Tank (C3T30C) or 30D Tank (C3T30D) for acid recovery (Upstream);

- Overflow (clarified 40% acid) is pumped from the 43 Clarifier (C4T43) to the42 Tank (C4T42) (Upstream) or to the 40% Clarifier Feed Tank (C4T40).

3) <u>40% Acid Processed to 54% Acid (Upstream Operations) or as Feedstock to DAP/MAP (Downstream Operations)</u>

- From the 42 Tank (C4T42), 40% acid is pumped to the 2nd Stage Evaporators #1, 2, 3, 4, 5, 6, and 7 for concentration to 54% acid (Upstream);

- From the 43% Clarifier Feed Tank (40 Tank – C4T40), 40% acid is pumped to the 2nd Stage Evaporators (#1, 2, 3, 4, 5, 6 and 7) for concentration to 54% acid (Upstream);

- Concentrated 54% acid is pumped from the evaporators to the 50% Evaporator Product Tank ("50 Tank"- C5T50T) (Mixed Use) or to the 54% Clarifier (52 Tank - C5T52) (Mixed-Use);

- Unclarified 54% acid is pumped from the 50 Tank (C5T50T) to the 54% Clarifier ("52 Clarifier" - C5T52) (Mixed-Use);

- Underflow (solids) from the 52 Clarifier (C5T52) is pumped:
  1. via the "53C" Transfer Line to #3 DAP/MAP 50% Acid Storage 54A Tank ("54A Tank"- D3T54A) or #3 DAP/MAP 50% Acid Storage 54B Tank ("54B Tank"- D3T54B) for use in MAP production (Downstream); and/or
  2. to the 30C Tank (C3T30C) or 30D Tank (C3T30D) for acid recovery (Upstream);

- Overflow (clarified 54% acid) from the 52 Clarifier (C5T52) (Mixed-Use) gravity flows to the "53 Tank" -C5T53 (BHT Recovery Unit);

- 54% acid from the 53 Tank (C5T53) is transferred to the following Downstream Tanks (see BHT Recovery Units):
  1. either #4 DAP 55A Tank (D4T55A) or #4 DAP 55B Tank (D4T55B) via "53A" or "53B" transfer line; and/or
  2. either #3 DAP 54A Tank (D3T54A) or # 3 DAP 54B Tank (D3T54B) via "53C" or "53B" transfer line.

4) 54% Acid Transfer between Mosaic Facilities (BHT Recovery Units)

Bartow has the capability of importing and exporting phosphoric acid from or to the #4 DAP 55A Tank (D4T55A) or # 4 DAP 55B Tank (D4T55B) in Granulation.

54% acid imported to the Bartow facility arrives at the Trucking Station (Figure 4) and is transferred via the North or South Truck Unloading Pumps to #4 DAP 55A Tank (D4T55A) or #4 DAP 55B Tank (D4T55B) located in the #4 DAP tank farm area for further consumption in the granulation plants.

B. Alternative to Standard Acid Flow Configuration

Note: Mosaic Bartow has the capability to route around all clarifier feed tanks, clarifiers, and storage tanks within the phosphoric acid process on a temporary basis, with the exception of the following Upstream Units:

- Phosphoric acid Reactor V-Train
- Phosphoric acid Reactor U-Train
- Filters
- Gypsum Slurry Tanks
- 1st Stage Evaporators A, B, C, D, or E
- 2nd Stage Evaporators # 1, 2, 3, 4, 5, 6, or 7

C. Phosphoric Acid Transfer to Downstream Operations

1) *Acid Transfer between #4 DAP and Truck Loading/Unloading (BHT Recovery Units)*

Mosaic Bartow has one primary transfer line, Tank Loading Line that serves to transport 54% acid from either the 55A Tank (D4T55A) or 55B Tank (D4T55B) to Truck Loading. The locations of the transfer lines are illustrated in Figure 3. The estimated line lengths and cleaning frequencies are listed in Table 2.

Mosaic Bartow has two primary transfer lines, the North and South Truck Unloading Lines, that serve to transport 54% acid from Truck Unloading to 55A Tank (D4T55A) or 55B Tank (D4T55B). The locations of the transfer lines are illustrated in Figure 4. The estimated line lengths and cleaning frequencies are listed in Table 2.

2) *Acid Transfer between the Phosphoric Acid Plant and #3 DAP/MAP (BHT Recovery Units)*

Mosaic Bartow has two primary transfer lines that serve to transport 30% phosphoric acid between the Phosphoric Acid Plant and #3 DAP/MAP. The "DAP1" and "DAP2" transfer lines transport 30% acid from either the 33A Tank (C3T33A) or 33B Tank (C3T33B) to the 34A Tank (D3T34A) or 54B Tank (D3T54B).

Mosaic Bartow has two primary transfer lines that serve to transport 54% phosphoric acid between the Phosphoric Acid Plant and #3 DAP/MAP:

1. The "53C" Transfer Line transports sludge (underflow) from the 54% clarifier (C5T52) or clarified 54% acid from the 53 Tank ((C5T53) to either the 54A Tank (D3T54A) or 54B Tank (D3T54B).
2. The "53B" Transfer Line transports clarified 54% acid from the 53 Tank (C5T53) to either the 54A Tank (D3T54A) or 54B Tank (D3T54B).

The locations of the transfer lines are illustrated in Figure 6. The estimated line lengths and cleaning frequencies are listed in Table 4.

3) *Acid Transfer between the Phosphoric Acid Plant and #4 DAP (BHT Recovery Units)*

Mosaic Bartow has two primary transfer lines that serve to transport 30% phosphoric acid between the Phosphoric Acid Plant and #4 DAP. The "DAP1" and "DAP2" transfer lines transport 30% acid from either the 33A Tank (C3T33A) or 33B Tank (C3T33B) to either the 35A Tank (D4T35A) or 35B Tank (D4T35B).

Mosaic Bartow has two primary transfer lines that serve to transport 54% phosphoric acid between the Phosphoric Acid Plant and #4 DAP. The "53A" Transfer Line and "53B" Transfer Line transport clarified 54% acid from the 53 Tank (C5T53) or the 50 Tank (C5T50T) to either the 55A Tank (D4T55A) or 55B Tank (D4T55B).

The locations of the transfer lines are illustrated in Figure 7. The estimated line lengths and cleaning frequencies are listed in Table 5.

D. Fluorosilicic Acid (FSA) Standard Process Configuration

Mosaic Bartow recovers fluoride vapors from Second Stage Evaporator # 5. The recovery of fluoride vapors produces FSA. A generic depiction of the FSA production process is illustrated in Diagram 1.

The Second Stage Evaporator #5 has a FSA production unit, also called a "Swift Tower," integrated with a barometric condenser. The Swift Tower receives gas emitted from the concentration of 43% P2O5 to 54% P2O5 through evaporation. The gas is condensed in the Swift Tower and the liquid is continuously recirculated through a seal tank and back through the Swift Tower to maintain the seal and operation of the FSA Swift Tower.

FSA is not always produced. When FSA is not being produced for sale or for use as a cleaning solution, the gases pass through the Swift Tower to the barometric condenser, there is no recirculation of FSA through the Swift Tower, and therefore FSA is not produced. Even when FSA is not being produced, the FSA Seal Tank remains an essential part of the Phosphoric Acid Evaporator by sealing the Swift Tower downleg.

When FSA is being produced for sale or for use as a cleaning solution, recirculated liquid will continue to absorb fluoride vapors until the desired strength of FSA is obtained. FSA for sale is a solution of approximately 23-26% strength and specific gravity of 1.20 -1.23.

Once the FSA reaches the desired strength for sale, a slip stream from the recirculation line between the FSA Seal Tank and FSA Swift Tower is sent to the FSA Day Tank (C4T81). In the FSA Day Tank (C4T81), the solution is isolated and tested for meeting customer specifications. Solutions meeting customer specifications in the FSA Day Tank (C4T81) are transferred to the FSA Storage Tank (C4T80) and sold to customers off-site.

If the solution does not meet the minimum customer specifications, within 90 days of that determination, the contents from the FSA Day Tank (C4T81) must be:

1. Returned to the 42 Tank (C4T42) for reprocessing and recovery of acid value when FSA is being produced for sale and/or internal consumption; or
2. Returned to the 40% Clarifier Feed Tank (C4T40) for reprocessing and recovery of acid value when FSA is being produced for sale and/or internal consumption; or
3. Sent to the Phosphoric acid reactors for reprocessing and recovery of acid values, or;
4. Discharged to the Phosphogypsum Stack System, if in compliance with the land disposal restriction (LDR) standards set forth in 40 C.F.R. Part 268, Subpart D, or;
5. Following commencement of operation of the BHT:
    a. Sent to the Big Holding Tank, as described in Section VI (Compliance Projects) of this Report, for reprocessing and recovery of acid values; or
    b. Used as FSACS and then sent to the Big Holding Tank, as described in Section VI (Compliance Projects) of this Report, for reprocessing and recovery of acid values.

Because sampling cannot take place instantaneously, it may be also necessary at times for FSA, including FSA that does not meet minimum customer specifications, to enter the FSA Storage Tank (C4T80) before sampling results are obtained and/or a customer for this FSA is found. If Mosaic fails to find a customer for the contents of the FSA Storage Tank (C4T80) within ninety (90) days, the contents shall be handled in compliance with the RCRA Subtitle C program.

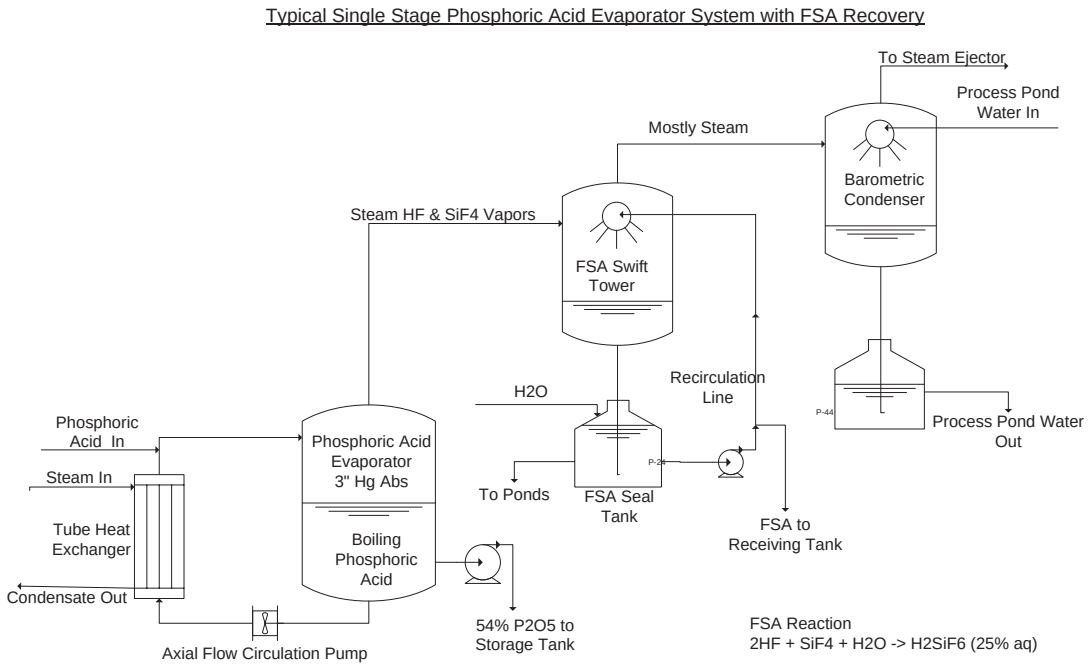
At any given time prior to the 90 day storage limit, the contents of the FSA Storage Tank (C4T80) may be:

1. Returned to the 42 Tank (C4T42) for reprocessing and recovery of acid value when FSA is being recovered for sale and/or internal consumption; or
2. Returned to the 40% Clarifier Feed Tank (C4T40) for reprocessing and recovery of acid value when FSA is being recovered for sale and/or internal consumption; or
3. Sent to the Phosphoric acid reactors for reprocessing and recovery of acid values; or
4. Discharged to the Phosphogypsum Stack System, if in compliance with the land disposal restriction (LDR) standards set forth in 40 C.F.R. Part 268, Subpart D; or
5. Following commencement of operations of the BHT:
    a. Sent to the Big Holding Tank as described in Section VI (Compliance Projects) of this Report, for reprocessing and recovery of acid values, or,
    b. Used as FSACS and then sent to the Big Holding Tank, as described in Section VI (Compliance Projects) of this Report for reprocessing and recovery of acid values.

Prior to commencement of operations of the BHT, FSA produced for use as a cleaning solution may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following commencement of operations of the BHT, FSA produced for use as a cleaning solution may be used and then must be sent to the Big Holding Tank, as described in Section VI (Compliance Projects) of this Report, for reprocessing and recovery of acid values.

Mosaic Bartow has one primary transfer line, FSA Shipping Line that serves to transport FSA between the FSA Storage Tank and Truck Loading. The location of the transfer line is illustrated in Figure 5. The line designation and cleaning frequency is listed in Table 3.

Diagram 1: General diagram of fluorosilicic acid production.



E. Ammoniated Process Wastewater Transfer (BHT Recovery Units)

Bartow uses ammonia to pH adjust Process Wastewater before it is sent to the rock grinding circuit. The neutralization process happens in the Pond Water Neutralization Tank located within the footprint of the #3 DAP/MAP (Figure 8). The pH-adjusted Process Wastewater is then sent to the rock grinding area for the processing of phosphate rock and P_2O_5 recovery from Process Wastewater.

V. Configuration Equipment Designations

A. Phosphoric Acid Plant and FSA

Figure 13 depicts Upstream Units, Mixed-Use Units, BHT Recovery Units, and Grandfathered Units.

1. Upstream Operations

The following processes, tanks, and associated equipment used in the production, concentration, transport, and storage of 30% and 40% phosphoric acid, and the concentration of 40% phosphoric acid to 54% phosphoric acid, serve only Upstream Operations:

1) Phosphoric acid reactor V-Train and Phosphoric acid reactor U-Train through filtration, recovery, and storage of 30% acid when the acid is not diverted to #3 DAP/MAP or #4 DAP. This includes #3, 4, 5 filters, #3, 4, 5 filters' filtrate tanks and gypsum slurry tanks;
2) Clarification and storage of the 30% acid:
    a. 30% Clarifier Sludge Storage Tank "A" (C3T30A),
    b. 30% Clarifier Sludge Storage Tank "B" (C3T30B),
    c. 30% Clarifier Feed Storage Tank "C" (C3T30C),
    d. 30% Clarifier Feed Storage Tank "D" (C3T30D),
    e. 30% Clarifier Tank "A" (C3T31A),
    f. 30% Clarifier Tank "B" (C3T31B),
    g. 30% Clarifier Tank "C" (C3T31C),
    h. 30% Clarifier Tank "D" (C3T31D),
    i. 30% Acid Clarifier South Overflow Tank A (C3T32A),
    j. 30% Acid Clarifier North Overflow Tank B (C3T32B),
3) Concentration of 30% acid to 40% acid:
    a. 1st Stage Evaporators – A, B, C, D, and E,
4) Clarification and storage of 40% acid:
    a. 40% Clarifier (C4T43)
5) Concentration of 40% acid to 54% acid:
    a. 2nd Stage Evaporators #1, 2, 3, 4, 5, 6, and 7

<u>APCDs</u>

All scrubbers within the Phosphoric Acid Plant use once-thru Process Wastewater to scrub vapors from specific units within the phosphoric acid process.

a. #4 Fume Scrubber evacuates fumes from:
    i. #4 Acid Attack Tank
    ii. #4 Flash Cooler Condensers seal tank
    iii. #4 Vacuum Filter fume hood and the filtrate tank

b. 43 Fume Scrubber evacuates fumes from the following:
    i. 40% Clarifier (C4T43)

2. Mixed-Use Units

The following tanks with associated equipment in the Phosphoric Acid Plant are Mixed-Use Units.

<u>Phosphoric Acid Tanks</u>

The following tanks identified as Mixed-Use Units in the Phosphoric Acid Plant serve Upstream Operations but also serve as storage for feedstock to Downstream Operations:

a. 30% South Acid Tank 33A (C3T33A) – feeds DAP/MAP (Downstream) and 1st Stage Evaporators (A, B, C, D, E) (Upstream);

b. 30% North Acid Tank 33B (C3T33B) – feeds DAP/MAP (Downstream) and 1st Stage Evaporators (A, B, C, D, E) (Upstream);
c. 54% Clarifier (C5T52) – feeds sludge to DAP/MAP (Downstream) and the 30% Acid Clarifier Feed Tanks 30C (Upstream, C3T30C) and 30D (Upstream, C3T30D); overflow to the 50% Acid Feed Tank (Grandfathered, 0023);
d. 40% Clarifier (C4T43) – feeds 40% Clarified Acid Storage Tank (C4T42), 30% Clarifier Feed Storage Tank "C" (C3T30C) and 30% Clarifier Feed Storage Tank "D" (C3T30D) during normal operation. If 40% Acid Storage Tank (C4T42) is out of service, then it feeds evaporators (Upstream) and receives FSA from either FSA Storage Tank (BHT Recovery Unit, C4T80) or FSA Day Tank (BHT Recovery Unit, C4T81) when C4T40 is out of service.
e. 40% Clarified Acid Storage Tank (C4T42) – feeds evaporators (Upstream) and receives FSA from either FSA Storage Tank (BHT Recovery Unit, C4T80) or FSA Day Tank (BHT Recovery Unit, C4T81).f. 40% Clarifier Feed Tank (C4T40) – feeds 43 clarifier and the second stage evaporators (Upstream). 50 Tank (C5T50T) – feeds the 52 clarifier (C5T52) (Mixed Use) and the DAP/MAP Plants (Downstream).

Transfer Lines

None

APCDs

a. #3 Fume Scrubber evacuates fumes from:
   i. 2nd Stage Evaporator Feed Tank (C4T42)
   ii. #3 Vacuum Filter fume hood and filtrate seal tank
   iii. FSA Storage Tank (C4T80)
   iv. FSA Day Tank (C4T81)

b. #5 Fume Scrubber evacuates fumes from:
   i. #5 Acid Attack Tank
   ii. #5 Flash Cooler Condensers seal tank
   iii. 1st Stage Evaporator Feed Tanks (C3T33A and C3T33B)

   iv. #5 Filter fume hood and filtrate seal tank

(Note #3 and #5 Scrubbers are tied together and share the evacuation of all the equipment listed above in items a. and b.)

c. 50% Fume Scrubber evacuates fumes from:
   i. 50 Tank (C5T50T)
   ii. 51 Tank (C5T51) (out of service)
   iii. 52 Clarifier (C5T52)
   iv. 53 Tank (C5T53)

3. BHT Recovery Units

The following tanks and acid transfer lines are identified as BHT Recovery Units located within the Phosphoric Acid Plant and serve as storage or transport for feedstocks to Downstream Operations. Section V. Configuration Equipment Designations B. Granulation Plants lists the BHT Recovery Units located within the Granulation Plants.

BHT Recovery Units are part of Downstream Operations. Wastes from BHT Recovery Units are recovered into Upstream Operations as designated in this Report or to the BHT itself as described in Section VI (Compliance Projects 1 and 2) of this Report.

The BHTs that Mosaic will install in accordance with Section VI (Compliance Projects) below are also BHT Recovery Units.

<u>Phosphoric Acid Tanks</u>

a. 50% Acid Feed Tank (C5T53)

5% Sulfuric Acid Wash Tank (SACS make-up)

a. 5% sulfuric acid wash Tank (PST400)

<u>Transfer Lines</u>

a. Tank Loading Line (54% acid transfer from either 55A Tank (D4T55A) or 55B Tank (D4T55B) to Truck Loading (Table 2/ Figure 3);
b. North Truck Unloading Pump 54% acid transfer from Truck to 55A Tank (D4T55A) or 55B Tank (D4T55B). (Table 2/ Figure 4);
c. South Truck Unloading Pump 54% acid transfer from Truck to 55A Tank (D4T55A) or 55B Tank (D4T55B). (Table 2/ Figure 4);
d. "DAP1" transfer line transfers 30% acid from the 33A Tank (C3T33A) and 33B Tank (C3T33B) to the 34A Tank (D3T34A) located in #3 DAP/MAP (Table 4/Figure 6) and 35A (D4T35A) or 35B (D4T35B) Tanks located in #4 DAP (Table 5/Figure 7);
e. “DAP2” transfer line transfers 30% acid from the 33A Tank (C3T33A) and 33B Tank (C3T33B) to the 34A Tank (D4T34A) located in #3 DAP/MAP (Table 4/Figure 6) and 35A (D4T35A) or 35B (D4T35B) Tanks, located in #4 DAP (Table 5/Figure 7);
f. “53A” transfer line transfers 54% acid from the 53 Tank (C5T53) or the 50 Tank (C5T50T) to the 55A Tank (D4T55A) or 55B Tank (D4T55B) at #4 DAP (Table 5/Figure 7);
g. “53B” transfer line transfers 54% acid from the 53 Tank (C5T53) or the 50 Tank (C5T50T) to the 55A Tank (D4T55A) or 55B Tank (D4T55B) at #4 DAP (Table 5/Figure 7) or 54A Tank (D3T54A) or 54B Tank (D3T54B) at #3 DAP/MAP (Table 4/Figure 6);

h. "53C" transfer line transfers 54% acid from the 53 Tank (C5T53) or the 50 Tank (C5T50T) to the 54A Tank (D3T54A) or 54B Tank (D3T54B) at #3 DAP/MAP or unclarified (sludge) 54% acid from the 54% clarifier (C5T52) the 54A Tank (D3T54A) or 54B Tank (D3T54B) at #3 DAP/MAP (Table 4/Figure 6).

FSA Tanks and Transfer Lines

a. FSA Storage Tank (C4T80);
b. FSA Day Tank ("81 Tank" – C4T81);
c. FSA Transfer Line from FSA Day Tank (C4T81) to FSA Storage Tank (C4T80);
d. FSA Shipping Line from FSA Storage Tank ("Tank 80" – C4T80) to Truck Loading (Table 3/ Figure 5).

Pond Water Neutralization Tank and Transfer Line

- Pond Water Neutralization Tank (Figure 8)
- Pond water neutralization line (Table 6/Figure 8)

4. Grandfathered Units

The following units serve Downstream Operations but are not feasibly segregated from Upstream Operations. The wastes from these units may be managed with wastes from Upstream Operations.

FSA Tanks and Transfer Lines

a. FSA Swift Towers
b. FSA Scrubber Seal Tank ("FSA Recirculating Tank" - E5T401)

APCDs

None

Transfer Lines

None

B. Granulation Plants

Mosaic Bartow's granulation process consists of two basic parts: (1) the wet side (e.g., reactor, acid scrubber system); and (2) the dry side (e.g., granulator, dryer).

In addition, Mosaic Bartow operates a re-slurry system that recovers product that is wet and cannot be recovered through the dry side's reclaim system; instead, Mosaic mixes the product

in a re-slurry tank with 30% acid, and/or fresh water as a batch process. This slurry is then fed back into the acid scrubber system for recovery.

MAP, DAP and MES manufacturing operations are Downstream Operations; however, the units that are listed below are Recovery Units and are identified within the perimeters shown in Figure 11: Containable Impervious Areas in Granulation.

The following equipment in the Granulation Plant are BHT Recovery Units. Wastes from BHT Recovery Units may be recovered into Upstream Operations as designated in this Facility Report or to the BHT itself as described in Section VI (Compliance Projects 1 and 2) of this Report and Sections 3 and 6 of the BMP:

a. #3 DAP/MAP 30% Acid Storage 34A Tank (D3T34A)
b. #3 DAP/MAP 50% Acid Storage 54ATank (D3T54A)
c. #3 DAP/MAP 50% Acid Storage 54B Tank (D3T54B)
d. #4 DAP 30% Acid Storage 35A Tank (D4T35A)
e. #4 DAP 30% Acid Storage 35B Tank (D4T35B)
f. #4 DAP 50% Acid Storage 55A Tank (D4T55A)
g. #4 DAP 50% Acid Storage 55B Tank (D4T55B)

The following equipment in the Granulation Plant are GHT Recovery Units. Wastes from GHT Recovery Units may be recovered into the granulation process as designated in this Facility Report or to the GHT itself as described in Section VI (Compliance Projects 3, 4 and 5) and Sections 3 and 6 of the BMP:

a. Granulation re-slurry system;
b. Granulation acid scrubbers;
c. Granulation reactor;
d. Granulator;
e. Dryer;
f. Cooler;
g. Elevators;
h. Screen and milling equipment;
i. Granulation tailgas scrubbers;
j. Acid transfer lines from the Phosphoric Acid storage tanks to the Granulation plant.

<u>APCDs</u>

All scrubbers in #3 DAP/MAP and #4 DAP are GHT Recovery Units. If the tailgas scrubbers' effluent is non-hazardous, it is sent to a dedicated DAP pond.

VI. Compliance Projects

The projects described below are not all the projects in Appendix 6 (Compliance Schedule) to the Consent Decree but are the projects that are recovery related – the BHT, GHT and reslurry systems. Timeframes for completion of the projects are found in Appendix 6 (Compliance Schedule) to the Consent Decree.

Projects 1 and 2 comprise a plan that will enable Mosaic Bartow to clean Upstream, Mixed-Use, Grandfathered, and BHT Recovery Units and recover value from the wastes as described below.

Projects 3, 4, and 5 are projects related to the Downstream Operations in Granulation and recovery of material in the granulation process.

A. BHT and Cleaning Solution Return Piping Projects

1. Project Descriptions

Project 1: Big Holding Tank and Wash Solution System in the Phosphoric Acid Plant
The Big Holding Tank and wash solution system (together designated the "BHT system") project in the Phosphoric Acid Plant shall install new tank(s) piping, and controls to enable Mosaic to recover the value of wastes, as specified in Section VI.A.2 (Project Operations) below.

Mosaic will refurbish Reuse Water Tank (Figure 13) to serve as an interchangeable backup tank for the BHT system, which may be used in services other than BHT when not operating as a BHT (which other use shall not alter or nullify the status of the backup tank as a BHT Recovery Unit or preclude its use as a part of Upstream Operations, if appropriate). The backup tank will be used during cleaning and/or maintenance of the BHT tank. Cleaning waste from the BHT backup tank will be handled in the same way as the cleaning waste from the BHT itself as described in Section 2. Phosphoric Acid Plant Cleaning Procedures of the BMP.

In addition, new or upgraded pumps, motors, small pump tanks, and instrumentation may be needed to ensure the return to the BHT cleaning wastes and spills and leaks of: (1) phosphoric acid, sulfuric acid, FSA, SACS, PACS, FSACS, or BHT Effluent; or (2) NHACS, Process Wastewater, or Phosphogypsum Stack System Wastewater when mixed with any of the preceding solutions due to spills, leaks, or cleaning of leaks and spills. Project 1 necessarily coincides with Project 2 below.

Project 2: Cleaning Solution Return Piping

Mosaic will install new piping to enable Mosaic to: (1) clean phosphoric acid transfer lines from the Phosphoric Acid Plant to the #3 DAP/MAP and #4 DAP Granulation Plants and return those cleaning wastes to the BHT; (2) clean BHT Recovery Units located in the Granulation Plants and return those wastes to the BHT; and (3) clean FSA system and return wastes to the BHT.

2. Project Operations

The wash solution system will be comprised of the BHT and the SACS make up tank(s), along with pumps and piping to supply cleaning solution to units that are part of Upstream Operations or are identified as Mixed-Use, Grandfathered, or BHT Recovery Units.

Phosphogypsum Stack System Wastewater, Process Wastewater, fresh water, condensate or other water sources will be mixed with sulfuric acid, FSA, phosphoric acid or BHT Effluent in the SACS wash make up tank(s) or BHT. The equipment and lines that are part of Upstream Operations or are identified as Mixed-Use, Grandfathered, or BHT Recovery Units may be washed with SACS either from the BHT or the SACS wash make up tank and the solutions may be returned to the BHT.

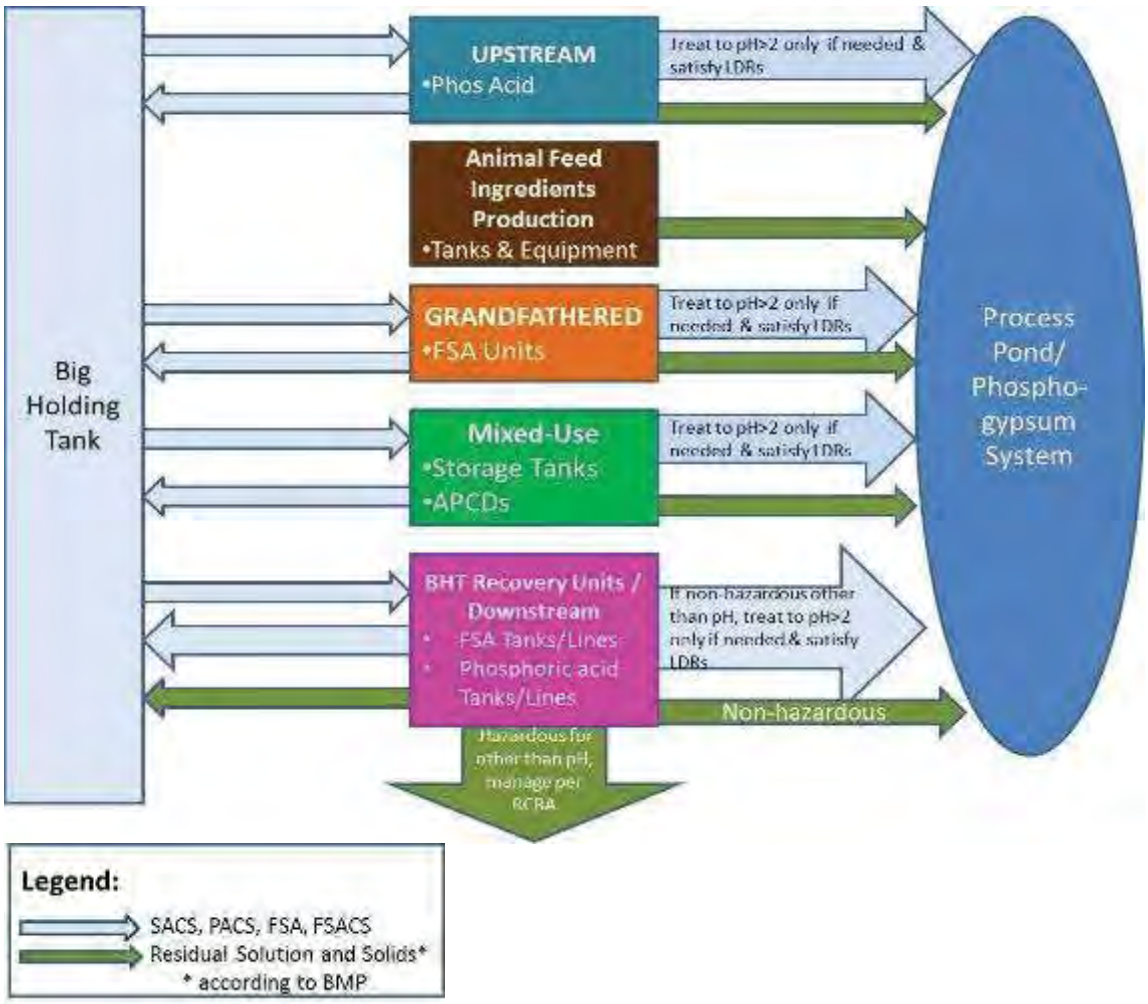
In addition, the BHT will enable Mosaic to recover the value of wastes generated from the use of SACS, FSA, FSACS, PACS, Non-Hazardous Aqueous Cleaning Solution, Process Wastewater, Phosphogypsum Stack System Wastewater, BHT Effluent from pipes, tanks, process equipment, or other storage or transport units that: (i) are part of Upstream Operations, (ii) serve to manage, store, or transport Bevill-Exempt Wastes; or (iii) are identified as Mixed-Use, Grandfathered Units, or BHT Recovery Units in this Report. In accordance with the BMP, the BHT will also enable Mosaic to recover spills and leaks in Containable Impervious Areas described in Section VII (Containment of Phosphoric Acid Product Leaks and Spills) of this Report. The BHT may also receive transfers from the GHT in accordance with Section VI. B.2. Project Operations.

The BHT shall in turn return the recoverable streams into Upstream Operations where their values are recovered or managed through the following: (See Figure 1: BHT Inputs and Effluents)

a. as an intermediate wash on the filter, prior to the final cake wash, to inhibit scale formation. This wash ultimately circulates back to the reactor (attack tank); and/or
b. as direct make up to the phosphoric acid reactors; and/or
c. neutralized in the Pond Water Neutralization System (see Section IV.E Ammoniated Process Wastewater Transfer (BHT Recovery Units)) above and then added to the rock grinding circuit where it will ultimately end up in the slurry fed into the phosphoric acid reactors; and/or

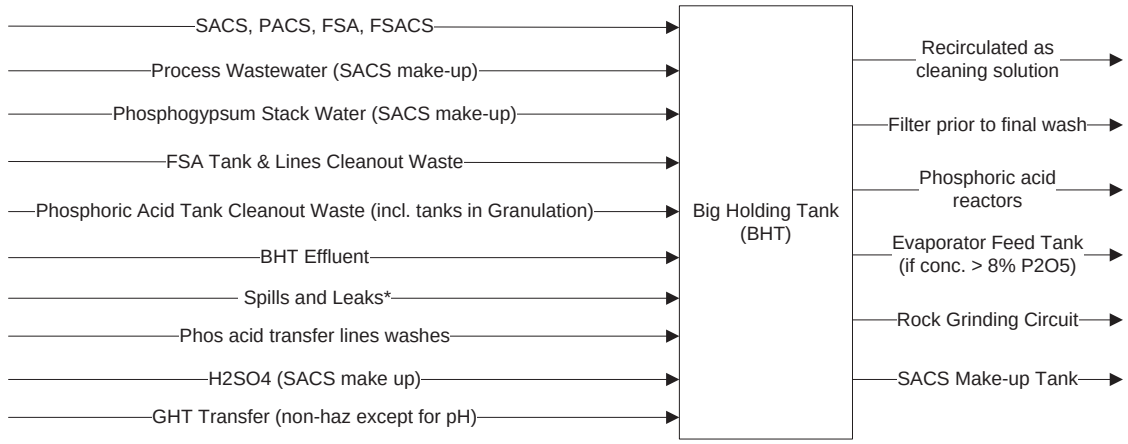
d. discharged to the Phosphogypsum Stack System, if in compliance with the LDR standards set forth in 40 C.F.R. Part 268, Subpart D; and/or
e. if the P_2O_5 content is at least 8% the BHT Effluent may be placed in the evaporator feed tanks for P_2O_5 recovery.

Figure 1. BHT Inputs and Effluents[6]



[6] This Figure is a simplification of the management requirements for BHT inputs and effluents. Nothing in this Figure substitutes for or overrides the narrative descriptions in this Report.

Figure 2. BHT Inputs and Effluents



* Spills and Leaks include: P2O5, H2SO4, FSA and mixtures of the proceeding with Process Wastewater, Phosphogypsum Stack Water and NHACS

B. GHT Related Projects

1. Project Descriptions

Project 3: Granulation Plant Re-Slurry System (#3 DAP[7])
Mosaic will install product recovery tank, hopper, piping, steam feed, valves, agitator, and pumps to recover wet fertilizer product. The resulting slurry will be fed to the acid scrubber system for consumption in the granulation process.

Project 4: Granular Holding Tank and Wash Solution System in the Granulation Plant
Mosaic will install two Granular Holding Tank (GHT)[8] systems- one in #3 DAP/MAP plant and the other in #4 DAP plant. The GHT plus piping, pumps, and instrumentation (together the "GHT system") will transport and recirculate wash solution between GHT Recovery Units and the GHT and consume the wash solution in the granulation plants (#3 DAP/MAP and #4 DAP) as specified in Section VI.B.2 below.

Project 5: Upgrade Granulation Plants' Pads and Sumps
Mosaic will modify or install, as needed, containment pads and sumps in each granulation plant to improve the capture of spills, leaks, and cleaning solutions so materials may be returned to the granulation process via the GHT. This will include the #3 DAP/MAP Tank Farm and the #4 DAP Tank Farm as identified in this Report.

2. Project Operations

[7] DAP4 already has an operational re-slurry system.
[8] Although Mosaic plans to install more than one GHT, for simplicity this Report will use the singular "GHT" to describe any and all GHTs that will be installed at Mosaic's Bartow facility.

The GHT system will enable Mosaic to recover the value of wastes generated from the use of SACS, PACS, Non-Hazardous Aqueous Cleaning Solution, Process Wastewater, Phosphogypsum Stack System Wastewater, or GHT Effluent from pipes, tanks, process equipment, or other storage or transport units identified as GHT Recovery Units or manage those wastes as described in Section 3. Granulation Plants Cleaning Procedures of the BMP. In accordance with the BMP, the GHT will also enable Mosaic to recover spills and leaks in Containable Impervious Areas described in Section VII of this report.

A. The GHT shall in turn reuse or recover the recoverable streams as follows:
    a. consumed in the acid scrubber system for consumption in the granulation process; and/or
    b. consumed directly into the granulation reactor; and/or
    c. added to the re-slurry system; and/or
    d. recirculated to clean GHT Recovery Units.

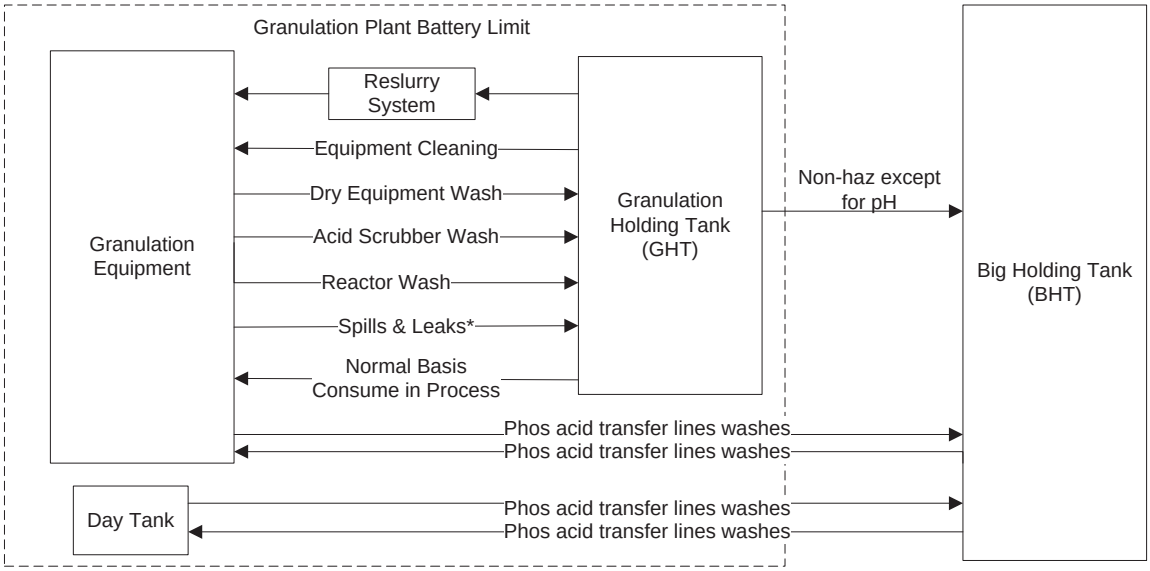
B. In GHT cleaning situations identified in Section 3 Granulation Plants Cleaning Procedures - GHT Recovery Units, of the BMP, Mosaic may transfer the contents of the GHT to the BHT if they are RCRA non-hazardous. If the contents of the GHT are hazardous only for the RCRA corrosivity characteristic (pH $\leq$ 2), Mosaic may transfer the contents to the BHT no more than two times per calendar year. The GHT shall then be washed with a cleaning solution (SACS, PACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS). If the wash solution is hazardous only for RCRA corrosivity (pH $\leq$2), it may be transferred to the BHT not more than two times per calendar year. If the solution is non-hazardous, it can be transferred to the BHT or sent to the Phosphogypsum Stack System.

C. In addition to GHT cleaning situations in B, in non-routine situations (such as mechanical failure in the Granulation Plant, unexpected plant outages, electrical power failures, hurricanes or similar weather events or unexpected problems during startups) and if the GHT is (or imminently will be) at or above 90% (full), Mosaic may transfer GHT Effluent if non-hazardous or hazardous only for the RCRA corrosivity characteristic (pH $\leq$ 2) to the BHT, in order to create additional capacity in the GHT, until the GHT's capacity is at 50%, provided that Mosaic:

    i) Manages use of the GHT to BHT transfer line by locking the valve on the transfer line or a system interlock requiring a code to activate;
    ii) Obtains approval from its area manager to make the transfer; and
    iii) Includes information on each transfer in its reports to the EPA and FDEP as required in Paragraph 41 of the CD.

If Mosaic chooses not to reuse or recover the GHT Effluent as described above, the GHT Effluent must instead be managed in accordance with RCRA.

Figure 3: GHT Inputs and Effluents



* Spills and Leaks include: P2O5, H2SO4 and mixtures of the proceeding with Process Wastewater, Phosphogypsum Stack Water and NHACS

VII. Containment of Phosphoric Acid Product Spills and Leaks

Any impervious[9] manufacturing or storage areas not identified in this section as Containable Impervious Areas are considered to be Non-Segregable Areas.

Non-Segregable Areas

Approximately 20% of Mosaic Bartow's Phosphoric Acid Plant's impervious surfaces have 40-mil HDPE liner installed beneath them. In several areas, the concrete pad is sloped towards concrete-lined trenches (denoted by orange lines in Figure 10**)** that transport any leaks and spills to the Phosphogypsum Stack System. Process Wastewater flows through the trenches at a rate of approximately 50,000 – 60,000 GPM to the Phosphogypsum Stack system. Due to the engineered slope of the concrete pad in these areas and the configuration of the Phosphoric Acid Plant, small spills and leaks of phosphoric acid, sulfuric acid, and FSA onto the concrete pad cannot be segregated ("non-segregable areas") and are mixed in the trenches with the Process Wastewater flowing to the Phosphogypsum Stack system and managed pursuant to Appendix 5, BMP. Mosaic may manage small spills and leaks of phosphoric acid, sulfuric acid, and FSA within the concrete areas of the Phosphoric Acid plant (delineated by redlines in Figure 10**)** in accordance with the BMP.

[9] Note, the use of the term "impervious" in this section does not refer to a particular definition of impervious or a particular leakage rate, but instead is used to mean a surface barrier to penetration, such as concrete, liners, steel, epoxy, etc. The term impervious in this section does not include gravel or soil.

Containable Impervious Areas

1) 50% Clarifier Containment Area
2) 43 Clarifier Area
3) FSA Loadout Area
4) 40% and FSA Containment Area
5) 33 Containment Area
6) 30% Storage and Clarification Area
7) #3 DAP Tank Farm Containment Area
8) #4 DAP Tank Farm
9) #4 DAP Return Ditch
10) #3 DAP/MAP Plant
11) #4 DAP Plant

Spills and leaks of phosphoric acid, sulfuric acid, FSA, PACS, SACS, and FSACS onto impervious areas, designated by yellow lines in Figure 10: Containable Impervious Areas at Phosphoric Acid Plant and Figure 11: Containable Impervious Areas in Granulation, ("containable impervious areas") shall be separately contained and then recovered in accordance with the BMP. The foregoing shall not relieve Mosaic of its obligations under any applicable law.

Other Areas

Any leak or spill of a hazardous material, including phosphoric acid and sulfuric acid, that is not contained within the Containable Impervious Areas or Non-Segregable Areas of the plant shall be managed in accordance with the BMP. The foregoing shall not relieve Mosaic of its obligations under any applicable law.

VIII. Process Water (Wastewater) Treatment Plant (Reverse Osmosis Plant)

Mosaic has installed a reverse osmosis plant at the Bartow facility to reduce Process Wastewater inventory **(**Diagram 1: Reverse Osmosis Unit Block Flow). The system consumes Process Wastewater and produces a permeate water of sufficient quality to be either discharged through a National Pollutant Discharge Elimination System (NPDES) permitted outfall or used as a fresh water source for the facility. The reject water, concentrated Process Wastewater, is returned to the Phosphogypsum Stack System.

The reverse osmosis plant has several stages of treatment to produce the final permeate. A description of these stages follows.

1) First Stage: Process Wastewater is pumped to any of five Ultra Filtration (UF) trains. UF concentrate flows to the Phosphogypsum Stack System. UF permeate feeds the UF permeate tank (T20.001) or is used to back flush UF membranes and is returned to the Phosphogypsum Stack System.

2) Second Stage: 1st Stage permeate from the 1st Stage permeate tank (T20.001) is pumped to any of five 2nd Stage trains. 2nd Stage concentrate flows to the Phosphogypsum Stack System. 2nd Stage permeate feeds the 2nd Stage permeate tank (T30.001).

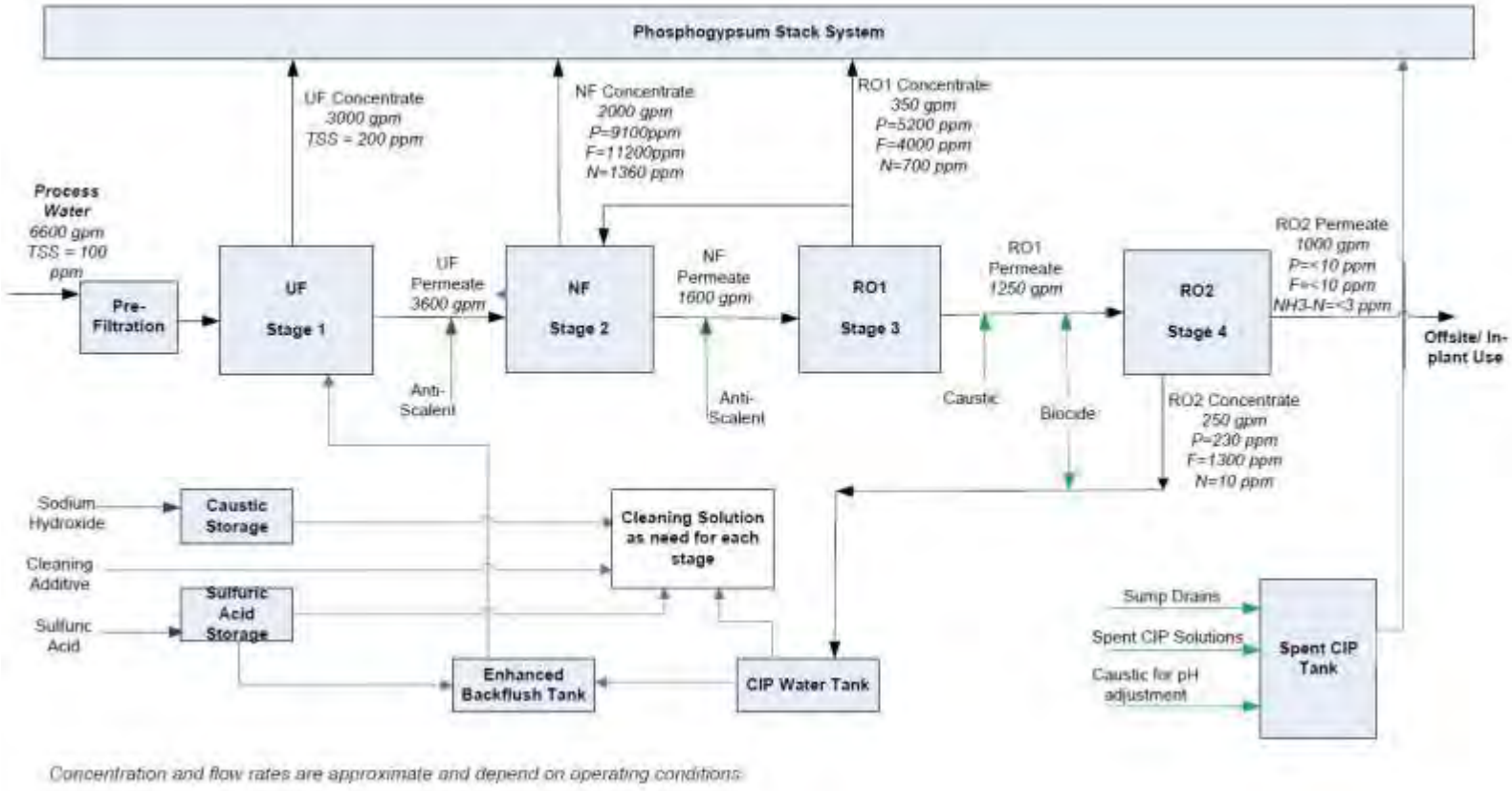
3) Third Stage: 2nd Stage permeate from the 2nd Stage permeate tank (T30.001) is pumped to any of five 3rd Stage trains. 3rd Stage concentrate flows to either the Phosphogypsum Stack System or the 1st Stage permeate tank (T20.001). 3rd Stage permeate feeds the 3rd Stage permeate tank (T40.001).

4) Fourth Stage: 3rd Stage permeate from the 3rd Stage permeate tank (T40.001) is pumped to any of five 4th Stage trains. 4th Stage concentrate flows to the Clean in Place (CIP) water tank (T70.001). 4th Stage permeate flows primarily to the product water tank (T50.001). 4th Stage permeate is pumped from the product water tank (T50.001) to the main gate or returned to the plant to offset fresh water. 4th Stage permeate feeds a minimal amount to the caustic dilution tank (T92.002). 4th Stage permeate is tested online for pH and conductivity. If 4th Stage permeate is out of spec, it is recycled or diverted to the rainwater collection tank (T06.200) so it can be pH adjusted, if needed then released to the Phosphogypsum Stack System.

Cleaning Solutions: Acid and caustic cleaning solutions are circulated through each of the units as needed to CIP. Acid cleaning solution is also back flushed through the first stage membranes for Enhanced Back Flush (EBF). The sulfuric acid solution concentration is typically 1% or less. After circulation the solutions are drained to the spent CIP neutralization tank (T06.100), where the pH is adjusted (>2.0 or <12.5) before being released to the Phosphogypsum Stack System.

Wastes generated from Mosaic Bartow's reverse osmosis plant shall be managed pursuant to Paragraph 18(a) of the Consent Decree. Mosaic may change the manner in which Mosaic's Bartow reverse osmosis plant operates without requiring prior approval by FDEP or EPA, provided that Mosaic (i) continues to manage such wastes pursuant to Paragraph 18(a) of the Consent Decree; and (ii) notifies FDEP or EPA of such changes within 90 Days of implementing such changes. In any event, cleaning solutions and filters must be managed in accordance with RCRA.

Diagram 1: Reverse Osmosis Unit Block Flow[10]



[10] The concentration and the flow rates are approximate.

IX. Proposed Phosphoric Acid Production-Related Operations

Mosaic has advised EPA and FDEP that it is considering one or more of the following projects at its Bartow facility, but planning has not evolved to where detailed information is available.

Figure 13 depicts Upstream, Mixed-Use, BHT Recovery Units and Grandfathered units. In the event that Mosaic reconfigures its Facility in accordance with Figure 14 and Figure 12, then Figure 14 and Figure 12 shall replace Figure 13 as identifying Upstream Operations, Downstream Operations, Grandfathered Units, BHT Recovery Units, and Mixed-Use Units for the Phosphoric Acid Plant.

*

[redacted]

However, the Consent Decree does not bind Mosaic to implement the proposed project(s) as depicted in Diagram 2, Diagram 3, Figure 12, and Figure 14. If Mosaic chooses to implement any changes through a different process than that depicted in Diagram 2, Diagram 3, Figure 12 and Figure 14, this Report shall be modified prior to implementation pursuant to Section XVIII (Modifications) of the Consent Decree and EPA and FDEP will determine whether the new process as designed involves Upstream Operations, Mixed-Use Units, Grandfathered Units, BHT Recovery Units or Downstream Operations and amend the Facility Report to memorialize those determinations consistent with the descriptions below. Such determination shall be conditioned upon the new process being built substantially as designed. If the new process deviates from that standard, EPA and FDEP will determine whether the new process as built involves Upstream Operations, Mixed-Use Units, Grandfathered Units, BHT Recovery Units or Downstream Operations and amend the Facility Report to memorialize those determinations consistent with the descriptions below.

*

[redacted]

** = Portions of this section have been omitted pursuant to a request for confidential treatment. An unredacted version of this section has been filed separately.*

*

[redacted]

X. Non-Phosphoric Acid Production Proposed Projects

Mosaic has advised EPA and FDEP that it is considering one or more of the following projects at its Bartow Facility, but planning has not evolved to where detailed information is available. Once Mosaic decides to implement one of these proposed projects and the project has identifiable units

** = Portions of this section have been omitted pursuant to a request for confidential treatment. An unredacted version of this section has been filed separately.*

associated with the process, Mosaic should confer with FDEP and EPA to assign unit designations and modify the Facility Report.

*

XI. Authorized Future Installations

This section applies to future installations that were not considered based on or proposed projects.

A. Procedure

The projects in (B) below will be deemed part of Upstream Operations, Mixed-Use Units, Grandfathered Units, and Recovery Units as applicable, when installed within contained concrete areas and will not require prior approval by FDEP or EPA provided that:

i) Mosaic's Phosphogypsum Stack System is in compliance with the requirements of Appendix 1, Attachment B (Groundwater and Zone of Discharge Requirements), Attachment C (Phosphogypsum Stack System Construction and Operational Requirements) of the Consent Decree, and that Mosaic is in compliance with the Financial Assurance requirements of the Consent Decree (Paragraph 25 and Appendix 2); and

ii) Mosaic provides EPA and FDEP with written notice at least 90 Days in advance of the reconfiguration or installation of said project.

However, if as a result of circumstances that require Mosaic to install or reconfigure such equipment in less than 90 Days from the time a decision is made to undertake such action, Mosaic shall provide written notice to FDEP and EPA as soon as possible and in all events prior to the installation or reconfiguration of such equipment; and

iii) Mosaic obtains and/or modifies any permit(s) required by local, state, or federal agencies; and

iv) Mosaic submits to FDEP and EPA for approval a modified version of this Report with the changes identified at least 60 Days in advance of the reconfiguration or installation of said project; and

v) If applicable, Mosaic submits to FDEP and EPA for approval any modified section(s) of Appendix 5, BMP at least 45 Days in advance of the reconfiguration or installation of said project.

B. Future Installations

1) Any existing tank within the battery limits of the Phosphoric Acid Plant (Figure 10) or the Tank Farms, including #3 DAP/MAP Tank Farm and DAP 4 Tank Farm, but excluding # 3 DAP/MAP Plant and DAP 4 Plant (Figure 11) which may or may not be storing phosphoric

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acid, can be converted to phosphoric acid storage service up to, but excluding Merchant Grade Acid. Any tank placed into phosphoric acid storage service shall be structurally adequate and physically compatible with the contents of the tank.

2) Up to a total of two new phosphoric acid tanks storing First Saleable Product may be added within the battery limits of the Phosphoric Acid Plant (Figure 10) or the Tank Farms, including # 3 DAP/MAP Tank Farm and DAP 4 Tank Farm, but excluding # 3 DAP/MAP Plant and DAP 4 Plant (Figure 11), where the phosphoric acid product stored in the new tank(s) will be used as a feedstock for MAP/DAP production so long as the new unit performs the same function as the existing Grandfathered or BHT Recovery Unit tanks identified in this Report. The installation of more than two such tanks shall require advance approval by EPA and FDEP in order to be considered a BHT Recovery Unit or a Grandfathered unit.

3) APCDs (scrubbers) may be newly installed, replaced, or modified if they are servicing Upstream Units or Mixed-Use Units identified in this Report. APCDs may not be reconfigured to service any Downstream Operations or any chemical processes absent EPA or FDEP approval which they are not serving as identified in this Facility Report.

4) Phosphoric acid piping systems and underflow piping systems associated with Upstream Units, Mixed-Use Units, BHT Recovery Units, or Grandfathered Units identified in this Report may be installed, replaced, or modified provided that the replacement or modified systems are located within the battery limits of the Phosphoric Acid Plant (Figure 10) or the Tank Farms, including #3 DAP/MAP Tank Farm and DAP 4 Tank Farm, but excluding # 3 DAP/MAP Plant and DAP 4 Plant (Figure 11), and serve only the phosphoric acid production operations identified in this Report for those Upstream Units, Mixed-Use Units, BHT Recovery Units, or Grandfathered Units.

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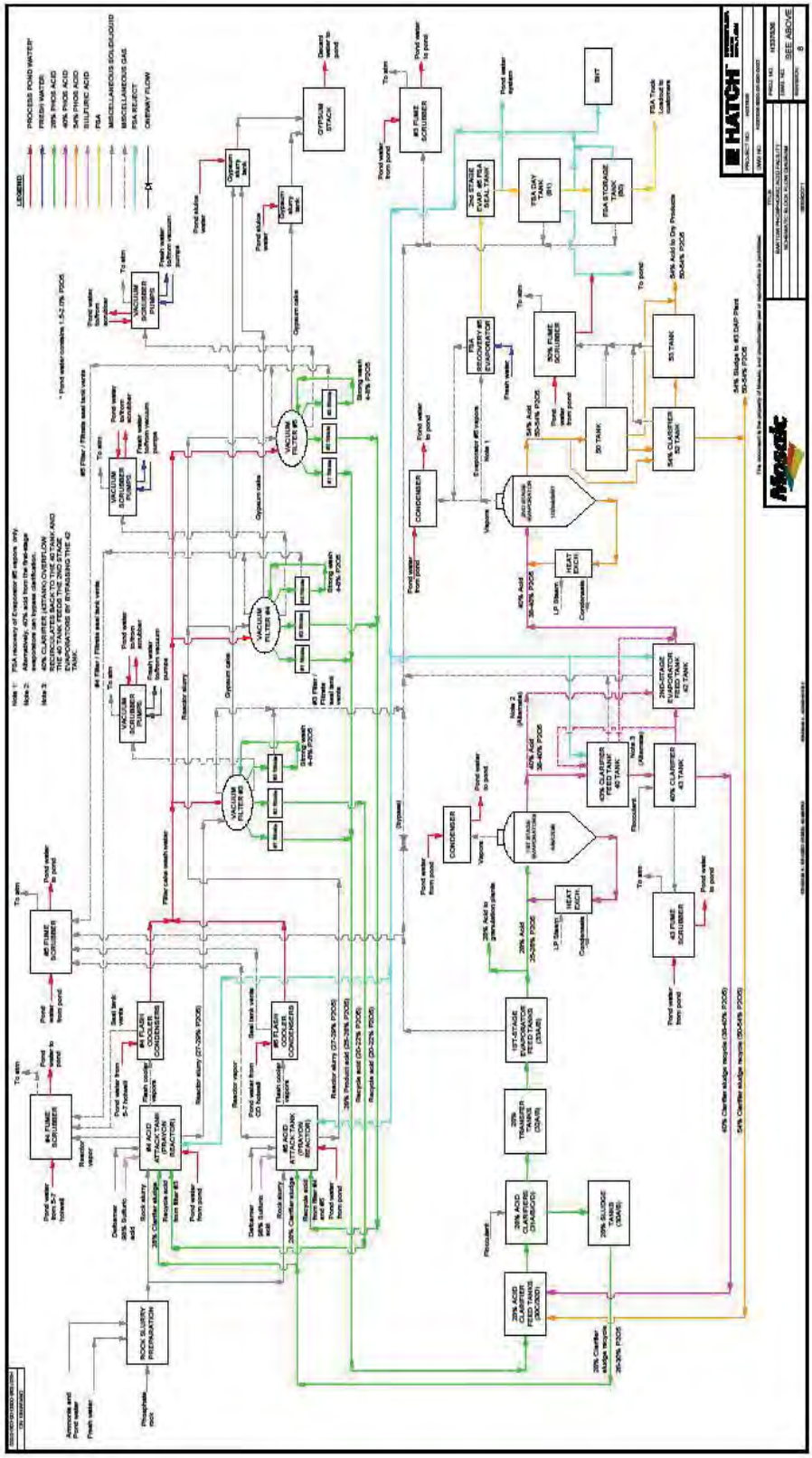


Figure 2. Mosaic Bartow Process Flow Diagram

Table 2: BHT Recovery Units – Downstream acid transfer lines from/to #4 DAP 55A Tank or 55B Tank and Truck Unloading/Loading (see corresponding Figure 3 and Figure 4)

	Service	Name	Description	Cleaning Frequency	Est. Length (ft)[11]
54% Tanks at DAP4 to Truck Loading/Unloading	54% Acid	Tank Loading Line	Transfers 54% Acid from 55A and 55B Tank to Truck Loading	as needed	70
	54% Acid	North Tank Loading Pump	Transfers 54% Acid from Truck to 55A Tank or 55B Tank	as needed	90
	54% Acid	South Tank Loading Pump	Transfers 54% Acid from Truck to 55A Tank or 55B Tank	as needed	90
	Estimate for Existing Lines		Estimate Length- Plan View (ft)		250
			Estimated Vertical Runs- Basis 20% Factor (Ft)		50
			Total Estimated Piping Length (ft)		300

[11] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

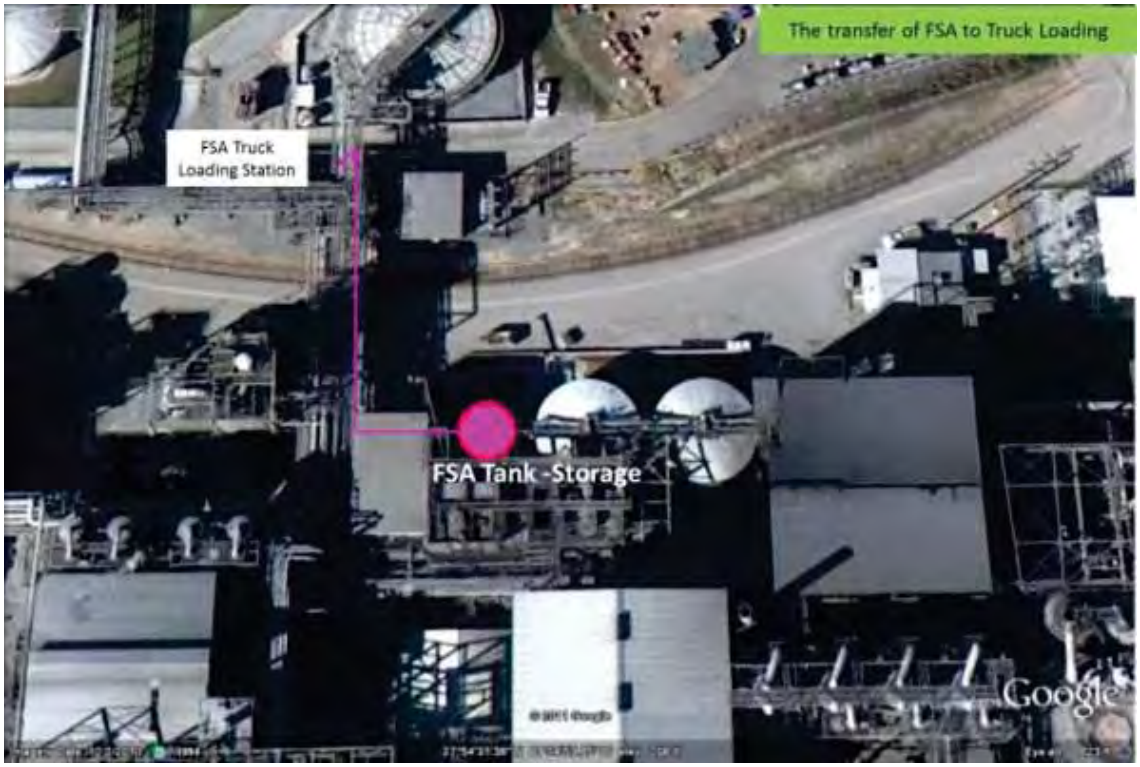
Figure 3: BHT Recovery Units - Downstream acid transfer lines from #4 DAP 55A Tank or 55B Tank to Truck Loading (see corresponding Table 2)

Figure 4: BHT Recovery Units - Downstream acid transfer lines from Truck Unloading to #4 DAP 55A Tank or 55B Tank (see corresponding Table 2)

Table 3: BHT Recovery Unit - Downstream Acid Transfer Lines between FSA Storage Tank and Truck Loading (see corresponding Figure 5)

	Service	Name	Description	Cleaning Frequency	Est. Length (ft)[12]
FSA Transfer to Truck Loading	FSA	FSA Shipping Line	Transfers FSA to Truck Loading station	As needed	200
	Estimate for Existing Lines		Estimate Length- Plan View (Ft)		200
			Estimated Vertical Runs- Basis 20% Factor (Ft)		40
			Total Estimated Piping Length (Ft)		240

Figure 5: BHT Recovery Unit - Downstream Acid Transfer Lines between FSA Storage Tank and Truck Loading (see corresponding Table 3)



[12] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Table 4: BHT Recovery Units - Downstream transfer of phosphoric acid between Phosphoric Acid Production and #3 DAP/MAP (see corresponding Figure 6)

	Service	Name	Description	Cleaning Frequency	Est. Length (ft)[13]
Phosphoric Acid Plant to #3 DAP/MAP	30% Acid	DAP1	Transfers acid from 33A or 33B Tank to 34A Tank	As Needed	1,410
	30% Acid	DAP2	Transfers acid from 33A or 33B Tank to 34A Tank	As Needed	1,410
	54% Acid	53C	Transfers unclarified (underflow) acid from the 54% clarifier or clarified acid from 53 Tank or 50 Tank to 54A or 54B Tank	As Needed	640
	54% Acid	53B	Transfers clarified acid from the 53 Tank or 50 Tank to 54A or 54B Tank.	As Needed	640
	Estimate for Existing Lines		*Estimate Length- Plan View (ft)*		3,100
			Estimated Vertical Runs- Basis 20% Factor (ft)		620
			Total Estimated Piping Length (ft)		3,720

Figure 6: BHT Recovery Units - Downstream transfer of phosphoric acid between Phosphoric Acid Production and #3 DAP/MAP (see corresponding Table 4)

[13] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Table 5: BHT Recovery Units - Downstream transfer of phosphoric acid between Phosphoric Acid Production and #4 DAP (see corresponding Figure 7)

	Service	Name	Description	Cleaning Frequency	Est. Length (ft)[14]
Phosphoric Acid Plant to #4 DAP	30% Acid	DAP1	Transfers acid from 33A or 33B Tank to 35A or 35B Tank	As Needed	2,350
	30% Acid	DAP2	Transfers acid from 33A or 33B Tank to 35A or 35B Tank	As Needed	2,350
	54% Acid	53A	Transfers clarified acid from the 53 Tank or the 50 Tank to 55A or 55B Tank	As Needed	1,680
	54% Acid	53B	Transfers clarified acid from the 53 Tank or the 50 Tank to 55A or 55B Tank.	As Needed	1,680
	Estimate for Existing Lines		*Estimate Length- Plan View (ft)*		8,060
			Estimated Vertical Runs- Basis 20% Factor (ft)		1,610
			Total Estimated Piping Length (ft)		9,670

Figure 7: BHT Recovery Units - Downstream transfer of phosphoric acid between Phosphoric Acid Production and #4 DAP (see corresponding Table 5)

[14] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

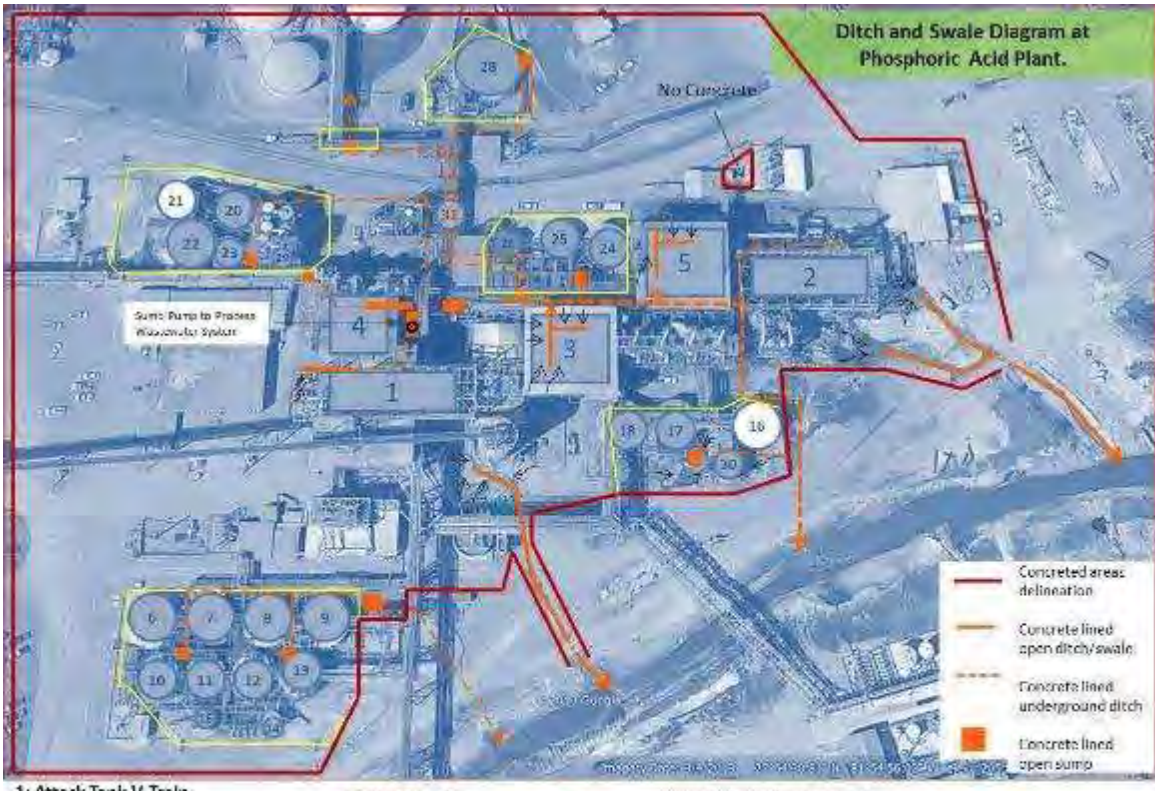
Table 6: Ammoniated Process Wastewater Transfer from #3 MAP/DAP to Rock Grinding (corresponds with Figure 8)

	Service	Name	Description	Cleaning Frequency	Est. Length (ft)[15]
Neutralized process wastewater transfer	Process waste water	Ammoniated Pond Water Transfer Line	Transfers process wastewater from Pond Water Neutralization Tank to Ball Mill	As Needed	940
	Estimate for Existing Lines		*Estimate Length- Plan View (ft)*		940
			Estimated Vertical Runs- Basis 20% Factor (ft)		190
			Total Estimated Piping Length (ft)		1,130

Figure 8: Ammoniated Process Wastewater Transfer from #3 MAP/DAP to Rock Grinding (corresponds with Table 6)

[15] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Figure 9: Ditch and Swale Flow Diagram at Phosphoric Acid Plant



1: Attack Tank V-Train
2: Attack Tank U-Train
3: #3 Filter Filtrate Tank
4: #4 Filter Filtrate Tank & 3/4 Gyp Tank
5: #5 Filter Filtrate Tank & Gyp Tank
6: 30A (Sludge) Tank
7: 30B (Sludge) Tank
8: 30C Tank
9: 30D Tank
10: 31A Clarifier
11: 31B Clarifier
12: 31C Clarifier
13: 31D Clarifier
14: 32B Tank
15: 32A Tank
16: Reuse Water Tank (out of service)
17: 33B Tank
18: 33A Tank
20: 50 Tank
21: 51 Tank (out of service)
22: 54% Clarifier (52 Tank)
23: 53 Tank
24: 40 Acid Tank
25: 42 Tank
26: FSA Tank – Storage (80 Tank)
27: FSA Day Tank
28: 40% Clarifier
29: FSA Scrubber Seal Tank (#5 Evap)
30: 5% Sulfuric Acid Wash Tank
31: Reuse Water Tank

Figure 10: Containable Impervious Areas at Phosphoric Acid Plant

1: Attack Tank V-Train
2: Attack Tank U-Train
3: #3 Filter Filtrate Tank
4: #4 Filter Filtrate Tank & 3/4 Gyp Tank
5: #5 Filter Filtrate Tank & Gyp Tank
6: 30A (Sludge) Tank
7: 30B (Sludge) Tank
8: 30C Tank
9: 30D Tank
10: 31A Clarifier
11: 31B Clarifier
12: 31C Clarifier
13: 31D Clarifier
14: 32B Tank
15: 32A Tank
16: Reuse Water Tank (out of service)
17: 33B Tank
18: 33A Tank
20: 50 Tank
21: 51 Tank (out of service)
22: 54% Clarifier (52 Tank)
23: 53 Tank
24: 40 Acid Tank
25: 42 Tank
26: FSA Tank – Storage (80 Tank)
27: FSA Day Tank
28: 40% Clarifier
29: FSA Scrubber Seal Tank (#5 Evap)
30: 5% Sulfuric Acid Wash Tank
31: Reuse Water Tank

Figure 11: Containable Impervious Areas in Granulation

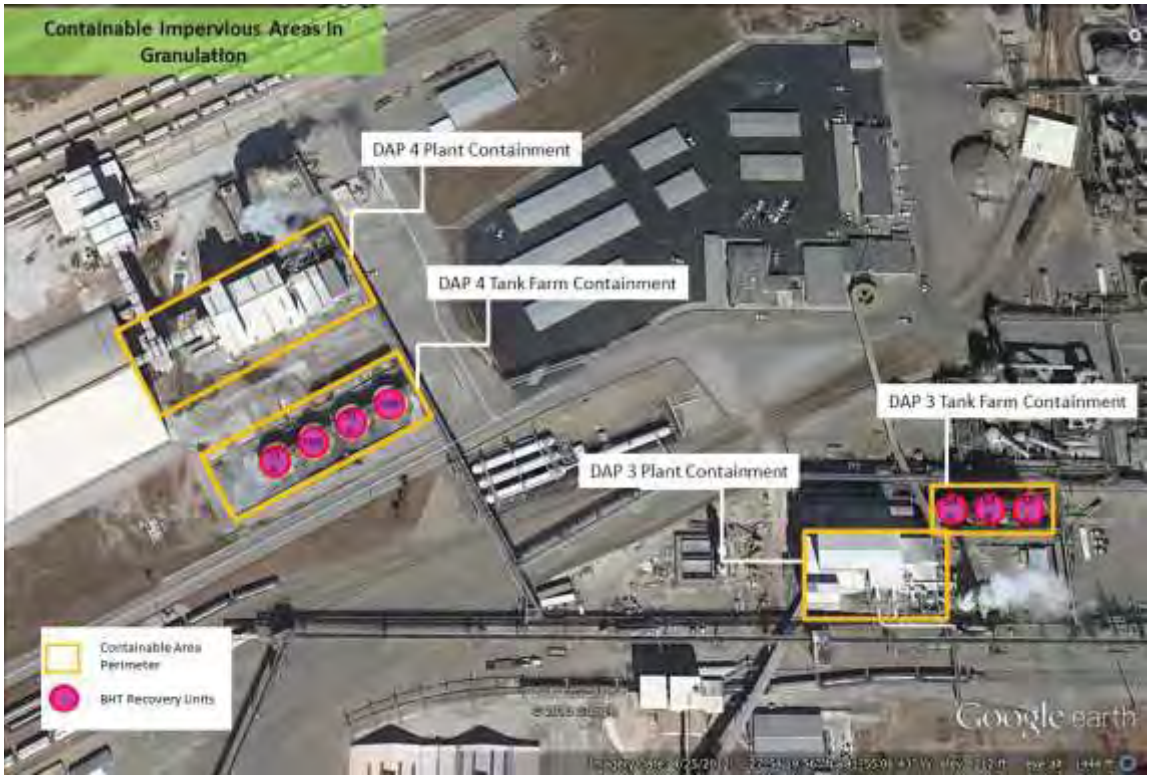


Figure 12: Proposed Configuration of [redacted]*

[redacted]*

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

Figure 13: Designations for Upstream Units, Mixed-Use Units, BHT Recovery Units and Grandfathered Units

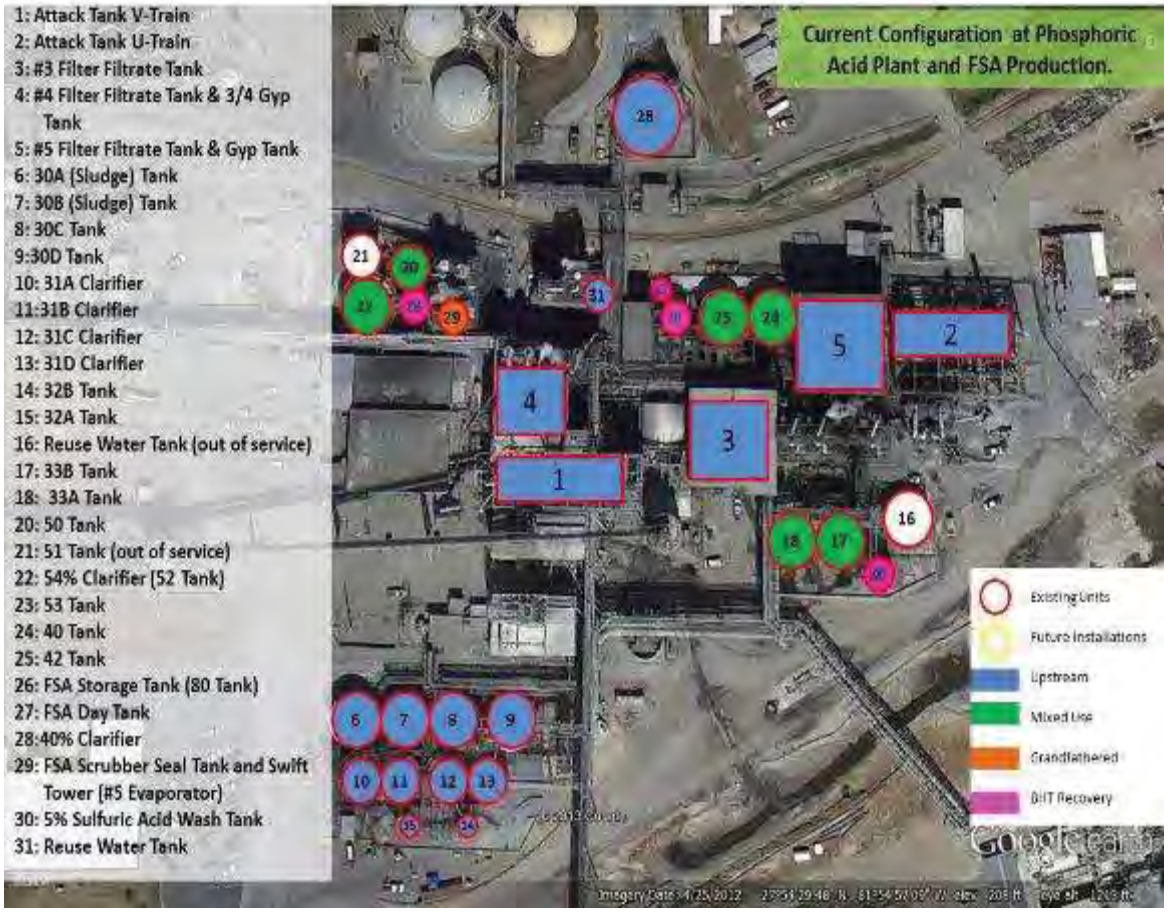


Figure 14: Proposed designations (post installation of proposed projects) for Upstream Units, Mixed-Use Units, BHT Recovery Units and Grandfathered Units

*

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

Figure 15: GHT and GHT Recovery Units Locations

September 8, 2015

APPENDIX 4
FACILITY REPORT
NEW WALES COMPLEX
EXECUTIVE SUMMARY

These summary tables provide an overview of the Upstream Units, Downstream Units, Animal Feed Ingredient Production (AFIP) Units, Mixed-Use Units, Grandfathered Units, and Recovery Units at Mosaic Fertilizer LLC's New Wales Facility. For Upstream Operations, the table only includes tanks that store phosphoric acid prior to the generation of the First Saleable Product. Piping associated with those tanks is considered part of Upstream Operations unless designated otherwise in the Facility Report. Nothing in these summary tables overrides subsequent details provided in diagrams and text.

Table 1: Unit Designations

Upstream Units			
Tank Name	Tank No. from Figure 11	Phosphoric Acid Service (%)	Alternate Name(s)
Phosphoric Acid Reactor East-Train	0048	30	***East Attack Tank***[1], ET Attack Tank
Phosphoric Acid Reactor West-Train	0049	30	***West Attack Tank***, WT Attack Tank
Phosphoric Acid Reactor Third-Train	0051	30	***3rd Attack Tank*** , 3rd T Attack Tank
Filtrate Seal Tank East-Train	0007	30	***#1 Filtrate, #2 Filtrate, #3 Filtrate***
Filtrate Seal Tank West-Train	0008	30	***#1 Filtrate, #2 Filtrate, #3 Filtrate***
Filtrate Seal Tank Third-Train	0009	30	***#1 Filtrate, #2 Filtrate, #3 Filtrate***
30% Clarifier Feed Tank East	0061	30	***Area 10 East 30% Tank*** or 30 East Tank or30E Tank
30% Clarifier Feed Tank West	0062	30	***Area 10 West 30% Tank*** or 30West Tank or 30W Tank
***30% Evaporator Feed Tanks* East**	0025	30	30 East Evap Feed Tank or 30E EFT
***30% Evaporator Feed Tanks* West**	0024	30	30 West Evap Feed Tank or 30W EFT
***30% Evaporator Feed Tanks* Third**	0069	30	30 Third Evap Feed Tank or 30T EFT
#1 30% Clarifier	0034	30	Area 10 #1 Clarifier; #1 Clarifier

[1] Names that are used in Figure 1: Mosaic New Wales Process Flow Diagram are shown in bold italic font.

#2 30% Clarifier	0035	30	Area 10 #2 Clarifier; #2 Clarifier
East 40% Clarifier	0052	40	*40% Clarifiers*, 40E Clarifier
West 40% Clarifier	0053	40	*40% Clarifiers*, 40W Clarifier
Third 40% Clarifier	0054	40	*40% Clarifiers*, 40T Clarifier
Surge Tank	0057	40	*40% Surge Tank*
40% Clarifier Underflow Tank	0060	40	40 Underflow Tank or 40 Sludge Tank
40% Belt Filter Seal Tank E	0020	40	***#1 Filtrate, #2 Filtrate #3 Filtrate***
40% Belt Filter Seal Tank W	0020	40	***#1 Filtrate, #2 Filtrate #3 Filtrate***
First Stage Evaporators (East #1, West #1, #7, 3rd 1A, 3rd 1B, 3rd 1C)		30-40	1East, 1West, 7, swing evaporator 1A, swing evaporator 1B, evaporator 1C
Second and Third Stage Evaporators (East #2, West #2, 3rd #2, East #3, West #3, 3rd #3)		40-54	2E, 2W, and 2T, 3E, 3W, 3T, 1A (swing) or 1B (swing)
#1 Aging Tank	0017	54	***54 Aging Tanks***, #1 54 Aging Tank
#2 Aging Tank	0018	54	***54 Aging Tanks***, #2 54 Aging Tank
54% Centrifuges North & South	0019	54	
8% Tank	0006	8	***8% Effluent Tank***
East Fume Scrubber			APCD
West Fume Scrubber			APCD
3rd Fume Scrubber			APCD
Area 10 Fume Scrubber			APCD
South Clarification Fume Scrubber			***South Fume Scrubber***, APCD
North Clarification Scrubber			*North Fume Scrubber*, APCD

AFIP Units			
Tank Name	Tank No. from Figure 2	Phosphoric Acid Service (%)	Alternate Name(s)
AFI Batch Defluorination Tank A	A	54	A Batch Tank or Tank 0309
AFI Batch Defluorination Tank B	B	54	B Batch Tank or Tank 0319
AFI Batch Defluorination Tank C	C	54	C Batch Tank or Tank 0329
AFI Batch Defluorination Tank D	D	54	D Batch Tank or Tank 0719
DF Acid Storage	DF	54	DF Tank or Tank 0299

Transfer Lines to AFIP			
Line Name	Service/Description	From	To
AFI Transfer Line	Transfers clarified 54% acid OR Merchant grade 54% acid	54E ROP Tank 54W ROP Tank 54N ROP Tank Merchant B Tank Merchant C Tank	AFI A Batch Tank AFI B Batch Tank AFI C Batch Tank AFI D Batch Tank

Mixed Use Units			
Tank Name	Tank No. from Figure 11	Phosphoric Acid Service (%)	Alternate Name(s)
B-Merchant Acid	0011	54	***Merchant Acid Tanks***
C-Merchant Acid	0012	54	***Merchant Acid Tanks***
54East ROP Clarifier	0014	54	***54% ROP Clarifiers***, E ROP
54West ROP Clarifier	0015	54	***54% ROP Clarifiers***, W ROP
54North ROP Clarifier	0016	54	***54% ROP Clarifiers***, N ROP
#1 30% Clarifier Overflow Tank	0036	30	#1 Clarifier Overflow
#2 30% Clarifier Overflow Tank	0037	30	#2 Clarifier Overflow

Big Holding Tank Recovery Units (Tanks)				
Tank Name	Tank No.	Figure No.	Phosphoric Acid Service (%)	Alternate Name(s)
Centrifuge Sludge Tank	0058	Figure 11	54	
30% Green Acid Tank	0064	Figure 11	30	Green Acid Tank
Centrifuge Product Tank	0071	Figure 11	54	

Scrub Tank	0066	Figure 11	Cleaning Solution	
#1 DAP Day Tank	0501	Figure 4	54	DAP1 54 Tank
PMAP Day Tank	0220	Figure 4	54	MAP Day Tank
#2 DAP Day Tank	0280	Figure 6	54	DAP2 54 Tank
MAP Sludge Tank	026	Figure 5	54	
#3 GMAP Acid Day Tank	1071	Figure 5	54	GMAP3 54 Acid Day Tank
Big Holding Tank (BHT)	0010	Figure 13	Cleaning solution	BHT
BHT backup tank (B Merchant Acid Tank)	0011	Figure 13	Cleaning solution	

Big Holding Tank Recovery Units (Transfer Lines)				
Line Name	Figure No.	Service/Description	From	To
Transfer Line	Figure 3	Transfers 54% acid	Truck Loading/Unloading	54E ROP Tank or 54W ROP Tank
Loading Line	Figure 3	Transfers 54% Acid	54E ROP Tank or 54W ROP Tank	Truck Loading/Unloading
30 Reg Line	Figure 4, Figure 5, Figure 6	Transfers 30% acid	Green Acid Tank	#1 DAP/MAP Scrubber Sump or #3 GMAP Scrubber Sump or #2E DAP or #2W DAP Scrubber Seal Tank
AP Line	Figure 4, Figure 5, Figure 6	Transfers 30% acid	Green Acid Tank	#1 DAP/MAP Scrubber Sump or #3 GMAP Scrubber Sump or #2E DAP or #2W DAP Scrubber Seal Tank
30 Raffinate Line	Figure 6	Transfers 30% acid	Green Acid Tank	#2E DAP or #2W DAP Scrubber Seal Tank
54 Reg Line	Figure 4, Figure 5, Figure 6	Transfers clarified 54% acid	54E ROP Tank or 54W ROP Tank or 54N ROP Tank	DAP1 54 Day Tank or DAP2 54 Day Tank
AP Line	Figure 4, Figure 6	Transfers clarified 54% acid	54E ROP Tank or 54W ROP Tank or 54N ROP Tank	DAP1 54 Day Tank or DAP2 54 Day Tank

Merchant Transfer Line	Figure 4, Figure 6	Transfers merchant grade 54% acid	Merchant B or Merchant C	DAP1 54 Day Tank or DAP2 54 Day Tank
Sludge Line	Figure 4	Transfers 54% acid centrifuge sludge	Centrifuge Sludge Tank or 54E ROP Tank or 54W ROP Tank	MAP Sludge Tank or #3 GMAP 54 Day Tank
54 Spare Line	Figure 5	Transfers clarified or merchant grade 54% acid	B-Merchant Acid Tank, C-Merchant Acid Tank, 54E ROP Tank, 54W ROP Tank or 54N ROP Tank	MAP Sludge Tank
Centrifuge Product Line	Figure 7	Transfers merchant acid	Centrifuges North & South	Centrifuge Product Tank to Merchant Acid B Tank or Merchant Acid C Tank

Granular Holding Tank Recovery Units			
Tank Name	Figure No.	Service	Alternate Name(s)
DAP1/GMAP3 Granular Holding Tank	Figure 14	Cleaning solution	DAP1/GMAP GHT
DAP2 Granular Holding Tank	Figure 14	Cleaning solution	DAP2 GHT
GHT Recovery Units as described in Section V.B. below	Figure 14	Ammoniated slurry / granulated product	

APPENDIX 4
FACILITY REPORT
MOSAIC FERTILIZER, LLC
NEW WALES COMPLEX
MULBERRY, FLORIDA
EPA ID NO. FLD 084 717 545

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I. Introduction

All capitalized terms not otherwise defined in this Facility Report shall have the meaning set forth in the Consent Decree.

A. Purpose

The purposes of this Facility Report are to:

1. Identify Mosaic Fertilizer, LLC's (Mosaic) Upstream Operations (Upstream), Animal Feed Ingredient Production (AFIP), and Downstream Operations (Downstream) at its New Wales Facility (Mosaic New Wales), its Mixed-Use air pollution control devices (APCDs), and Mixed-Use tanks, pipes, and other ancillary equipment involved in the production of phosphoric acid.
2. Identify certain units associated with Downstream Operations from which the cleaning wastes may be managed with wastes from Upstream Operations due to the particular configuration of the Facility (Grandfathered Units).
3. Identify compliance projects set forth in Section VI (Compliance Projects) of this Report, including the Big Holding Tank (BHT) and the Granular Holding Tank (GHT).
4. Identify certain Downstream Units associated with Mosaic's BHT project (BHT Recovery Units). Waste streams from these units will be recovered into Upstream Operations as designated in this Report or to the BHT in accordance with Section VI (Compliance Projects) of this Report.
5. Identify certain Downstream Units associated with Mosaic's GHT Project (GHT Recovery Units). Waste streams from these units will be recovered in the Granulation process as designated in this Facility Report or to the GHT in accordance with Section VI (Compliance Projects) of this Report.
6. Address phosphoric acid product spills and leaks in accordance with Section VII. Containment of Phosphoric Acid Product Spills and Leaks of this Report.
7. Identify categories of future equipment installations, some wastes from which may be co-managed with Bevill-Exempt wastes when meeting the conditions set forth in Sections VIII. Proposed Phosphoric Acid Production-Related Operations, IX. Non- Phosphoric Acid Production Proposed Projects of this Report and X. Authorized Future Installations of this Report.

Hazardous wastes generated from the production of sulfuric acid, wastes related to the transport of sulfuric acid to the phosphoric acid plant, and wastes generated from the cleaning of sulfuric acid transportation-related equipment are not within the scope of this Report.

B. Overview[2]:

A major purpose of the Facility Report is to specify how Mosaic shall handle wastes from designated units at the New Wales Facility. For the units designated as part of AFIP, Upstream or Downstream Operations or identified as Mixed-Use, Grandfathered, Big Holding Tank (BHT) Recovery or Granular Holding Tank (GHT) Recovery Units, wastes shall be handled as described below. The potential influents to the designated units are: BHT Effluent, GHT Effluent, Non-Hazardous Aqueous Cleaning Solution (NHACS), Phosphogypsum Stack System Wastewater, Phosphoric Acid Cleaning Solution (PACS), Process Wastewater, Sulfuric Acid Cleaning Solution (SACS) and spills and leaks of phosphoric acid, and sulfuric acid, in Containable Impervious Areas.

A. Wastes generated from Upstream/Mixed-Use/Grandfathered Operations/AFIP.

1. Cleaning Solutions Wastes.
   a. If NHACS, Phosphogypsum Stack System Wastewater, and/or Process Wastewater have been used to clean these units, the wastes from these units may be input to Upstream Operations or discharged to the Phosphogypsum Stack System.

   b. Prior to commencement of the BHT, if SACS or PACS are used to clean these units, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following commencement of operations of the BHT, if SACS, PACS or BHT Effluent are used to clean these units, the wastes from these units may be input to the BHT for use in Upstream Operations in accordance with Section VI. Compliance Projects of this Report, except in the case of a BHT process upset (see below).

   c. Following commencement of operations of the BHT, if Mosaic does not utilize the BHT to recover cleaning wastes identified in (b) above, or if any cleaning solutions other than those listed in (a) & (b) above are used to clean these units, Mosaic shall make a RCRA hazardous waste determination and manage the wastes in accordance with RCRA.

2. Scrubber Wastes. Wastes from normal operations (i.e., scrubber effluent) may be input to Upstream Operations or discharged to the Phosphogypsum Stack System. Scrubber cleaning wastes must be managed as described in 1. above.

3. Spills and Leaks. These are handled in accordance with the BMP and Section VII. Containment of Phosphoric Acid Product Spills and Leaks. Spills and leaks of phosphoric acid, sulfuric acid, SACS, PACS, or BHT Effluent in Containable Impervious Areas may be returned to a tank with similar material or input to the BHT for use in Upstream Operations in accordance with Section VI. Compliance Projects of this Report. Spills and leaks of Process Wastewater, Phosphogypsum Stack System Wastewater or

[2] This Overview Section summary is provided solely for informative purposes and does not replace, modify, or supersede the provisions specified in the Consent Decree or the substantive terms in the succeeding sections of this Facility Report.

NHACS in Containable Impervious Areas may also be returned to the BHT, when these spills and leaks are mixed with phosphoric acid, sulfuric acid, SACS, PACS, or BHT Effluent.

B. Wastes generated from BHT and BHT Recovery Units.

1. BHT Recovery Units. Prior to commencement of the BHT, if SACS, PACS, NHACS, Process Wastewater, or Phosphogypsum Stack System Wastewater are used to clean BHT Recovery Units, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following commencement of operations of the BHT, if SACS, PACS, NHACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or BHT Effluent are used to clean BHT Recovery Units, the wastes from these units may be input to the BHT for use in Upstream Operations in accordance with Section VI. Compliance Projects of this Report or managed in accordance with Section 2. Phosphoric Acid Plant Cleaning Procedures (Phosphoric Acid Tank and Equipment Cleaning – BHT Recovery Units) and Section 3. Granulation Plants Cleaning Procedures of the Best Management Practices Plan (BMP).

2. BHT. Influents to the BHT are limited to the following: (i) wastes generated from the use of SACS, PACS, NHACS, Phosphogypsum Stack System Wastewater, Process Wastewater, and BHT Effluent; (ii) spills and leaks of phosphoric acid and sulfuric acid in Containable Impervious Areas; (iii) sulfuric acid for SACS make-up; (iv) spills and leaks per A.3 above; and (v) GHT Effluent. BHT operation is described in Section VI. Compliance Projects, A.2. Project Operations of this Report.. BHT Effluent may be input to Upstream Operations or used for cleaning of the BHT Recovery Units and returned to the BHT. The BHT itself is designated a BHT Recovery Unit, and therefore for wastes generated from cleaning the BHT itself, see B.1 above.

3. Process Upset. In the event of a process upset that prevents the recovery of cleaning solutions via the BHT, then Mosaic (1) shall not discharge to the Phosphogypsum Stack System any SACS, PACS, or BHT Effluent used in cleaning those units affected by the process upset; and (2) shall make a RCRA hazardous waste determination of any cleaning wastes generated from BHT Recovery Units and manage such wastes in accordance with RCRA.

C. Wastes generated from Granular Holding Tank (GHT) and GHT Recovery Units.

1. GHT Recovery Units. Prior to commencement of the GHT, if SACS, PACS, NHACS, Process Wastewater, or Phosphogypsum Stack System Wastewater are used to clean GHT Recovery Units, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following commencement of operations of the GHT, if SACS, PACS, NHACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or GHT Effluent are used to clean GHT Recovery Units, the wastes from these units may be input to the GHT for use in Downstream Operations in accordance with Section VI. Compliance Projects of this Report or managed in accordance with Section 3. Granulation Plants Cleaning Procedures of the BMP.

2. Influents to the GHT are limited to the following: (i) Phosphogypsum Stack System Wastewater, Process Wastewater, Non-Hazardous Aqueous Solution, wastes generated from SACS, PACS, and GHT Effluent; and (ii) spills and leaks of phosphoric acid, sulfuric acid, SACS, PACS, or GHT Effluent in Containable Impervious Areas; and (iii) spills and leaks of Process Wastewater, Phosphogypsum Stack System Wastewater or NHACS, when these spills and leaks are mixed with phosphoric acid, sulfuric acid, SACS, PACS, or GHT Effluent. GHT operations are described in Section VI. Compliance Projects, B. GHT Related Projects 2. Project Operations of this Report. If GHT Effluent is not reused or transferred to the BHT in accordance with Section VI. Compliance Projects of this Report. Mosaic shall manage GHT Effluent as described in Section 6. Cleaning Solution System Operation of the BMP. The GHT itself is designated a GHT Recovery Unit, and therefore for wastes generated from cleaning the GHT itself, see C.1 above.

3. Process Upset. In the event of a process upset that prevents the recovery of cleaning solutions via the GHT, then Mosaic shall make a hazardous waste determination of cleaning wastes generated from those units affected by the process upset and manage them in accordance with RCRA.

D. Wastes generated from Downstream Operations only.

Prior to commencement of the GHT or BHT, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following the commencement of the operation of the GHT and BHT, if the Downstream wastes are not sent to the GHT or BHT for recovery and reuse, Mosaic shall make a hazardous waste determination of such wastes and manage them in accordance with RCRA. Following the commencement of the operation of the GHT and BHT, downstream scrubber effluent shall not be discharged to the Phosphogypsum Stack System.

II. Background[3]

Mosaic New Wales's primary commercial products are solid ammoniated phosphate fertilizers monoammonium phosphate (MAP), diammonium phosphate (DAP), and MicroEssentials® (MES) and the non-ammoniated animal feed ingredients monocalcium phosphate (Biofos ®), dicalcium phosphate (Dynafos®), sodium calcium phosphate (Nexfos®). DAP is manufactured in three production trains designated as #1 DAP/MAP and #2 DAP (#2 DAP East and #2 DAP West). MAP is also produced in #1 DAP/MAP, as well as plants designated as #3 granular MAP (GMAP) and powdered MAP (PMAP). Ammonia and phosphoric acid are the primary reactants for MAP and DAP and are consumed in the production of these fertilizers on-site. Animal feed ingredients are manufactured in the AFIP area.

Phosphoric acid is produced by the digestion of phosphate rock with sulfuric acid. Mosaic manufactures phosphoric acid in one production plant with three distinct reactors on-site. The reaction yields phosphoric acid and phosphogypsum (gypsum). Gypsum is filtered from the phosphoric acid on rotating pan filters, slurried with Process Wastewater in Gypsum Slurry Tanks,

[3] This Background Section is provided solely for informative purposes and is not a definitive or exhaustive description of the Facility or its operations.

and the resultant slurry is pumped to a lined Phosphogypsum Stack (gypstack). Because the production of phosphoric acid is a water-intensive process and water is used throughout the process (e.g., as acid dilution water, in the ball mills, evaporators, condensers, and as a pipe and tank cleaning agent), approximately 2.5 billion gallons of Process Wastewater is constantly stored in and circulating throughout the facility's Phosphogypsum Stack System.

Mosaic deposits slurried gypsum in a 60-mil high density polyethylene (HDPE) lined Phosphogypsum Stack located southeast of the facility. The lined South Gypsum Stack operates in conjunction with the existing Phosphogypsum Stack System.

Mosaic's New Wales Phosphogypsum Stack System is partially lined with 60-mil HDPE (within Lined Emergency Surge Pond-1 (LESP-1) and Lined Emergency Surge Pond-2 (LESP-2)). The pond system consists of the main cooling pond and connecting North, East, and West cooling channels, unlined Auxiliary Holding Pond (AHP), LESP-1 and LESP-2 and Northeast sump located directly east and south of the production complex. Mosaic operates the Phosphogypsum Stack System under an Industrial Wastewater Facility Permit issued by the Florida Department of Environmental Protection (FDEP).

III. First Saleable Products at Mosaic New Wales

The line marking the division between Upstream and Downstream Operations lies at the point of generation of the First Saleable Product. The following are the First Saleable Products at Mosaic New Wales:

1. 30% acid, when fed to #1DAP/MAP, #2 DAP, #3 GMAP, or any other Downstream Operation;
2. 54% acid (greater than 1% solids), when fed to #1DAP/MAP, #2 DAP, #3 GMAP, transported off-site or used in any other Downstream Operation; and
3. 54% Merchant Grade Acid (less than 1% solids) or any greater concentration of acid not associated with non-ammoniated Animal Feed Ingredient Production (AFIP).

Downstream Operations at Mosaic New Wales are associated with the storage, transport or use of these First Saleable Products in MAP, DAP and MicroEssentials® operations. Other First Saleable Products that are part of Upstream Operations are the non-ammoniated animal feed ingredients monocalcium phosphate (Biofos®), dicalcium phosphate (Dynafos®) and sodium calcium phosphate (Nexfos®).

IV. Phosphoric Acid Production – Phosphoric Acid Plant

Figure 11identifies Upstream Operations, Mixed-Use Units and BHT Recovery Units within Mosaic New Wales' Phosphoric Acid Plant. Figure 2 identifies AFIP Units within Mosaic New Wales' AFIP Plant.

Mosaic New Wales Phosphoric Acid Plant has approximately 80% impervious surfaces. Below-grade concrete ditches throughout the Plant convey Process Wastewater from the Plant to the Phosphogypsum Stack System at a flow rate of approximately 86,000 GPM. The main Process Wastewater return ditches within the plant are composed of high performance concrete.

A. Standard Acid Flow Configuration

The Phosphoric Acid Plant produces three concentrations of phosphoric acid for use in fertilizing manufacturing – 30% P_2O_5[4], 40% P_2O_5, and 54% P_2O_5[5]. The 30% acid that is not used directly as feedstock to fertilizer manufacturing is further processed to 54% P_2O_5 in Upstream Operations. The standard phosphoric acid manufacturing process described below is illustrated in a process flow diagram Figure 1. Deviations from the standard acid flow configuration are necessary on periodic short-term intervals.

Mosaic New Wales produces phosphoric acid in three reactors designated as the Phosphoric acid Reactor East-Train (0048), the Phosphoric acid Reactor West-Train (0049), and the Phosphoric acid Reactor Third-Train (0051). Approximately 70% of the acid from all reactors mixes at the 30% Clarifier Feed Storage Tank "East" ("30East Tank" or "30E Tank" - 0061) and the 30% Clarifier Feed Storage Tank "West" ("30West Tank" or "30W Tank" - 0062). The remaining 30% is sent directly to the following three evaporator feed tanks: 30% Evaporator Feed Tank "East" ("30East Evap Feed Tank" - 0025), 30% Evaporator Feed Tank "West" ("30West Evap Feed Tank" - 0024), and 30% Evaporator Feed Tank "Third" ("30Third Evap Feed Tank" - 0069). Prior to mixing at the 30East Tank (0061) and 30West Tank (0062), the acid flows as follows:

<u>Phosphoric acid Reactor East-Train (Upstream):</u>

Post-reactor, the approximate 30% phosphoric acid slurry is pumped to the East Tilting Pan Filter where gypsum solids are filtered from the phosphoric acid. Gypsum is pumped to the South Gypsum Stack and the unclarified 30% phosphoric acid filtrate flows into the East Filter Filtrate Seal Tank. From the East Filter Filtrate Seal Tank, the 30% unclarified acid is pumped to any of the following tanks: 30E Tank (0061), 30W Tank (0062), 30East Evap Feed Tank (0025), 30West Evap Feed Tank (0024) or 30Third Evap Feed Tank (0069);

<u>Phosphoric acid Reactor West-Train (Upstream):</u>

Post-reactor, the approximate 30% phosphoric acid slurry is pumped to the West Tilting Pan Filter where gypsum solids are filtered from the phosphoric acid. Gypsum is pumped to the South Gypsum Stack and the unclarified 30% phosphoric acid filtrate flows into the West Filter Filtrate Seal Tank. From the West Filter Seal Tank, the unclarified 30% acid is pumped to any of the following tanks: the 30E Tank (0061), the 30W Tank (0062), 30East Evap Feed Tank (0025), 30West Evap Feed Tank (0024) or 30Third Evap Feed Tank (0069);

<u>Phosphoric acid Reactor Third-Train (Upstream):</u>

Post-reactor, the approximate 30% phosphoric acid slurry is pumped to the Third Tilting Pan Filter where gypsum solids are filtered from the phosphoric acid. Gypsum is pumped to the South Gypsum Stack and the unclarified 30% phosphoric acid filtrate flows into the Third Filter Filtrate Seal Tank. From the Third Filter Filtrate Seal Tank the unclarified 30% acid is pumped to any of the following tanks: the 30E Tank (0061), the 30W Tank (0062), 30East Evap Feed Tank (0025), 30West Evap Feed Tank (0024), or 30Third Evap Feed Tank (0069).

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[4] All P_2O_5 concentrations are approximate and fluctuate slightly.

[5] Note that although the terms P_2O_5 and phosphoric acid (H_3PO_4) are used interchangeably, the concentrations are not interchangeable. Mosaic manufactures phosphoric acid, however, in this document we refer to the concentration of the acid in terms of P_2O_5 concentration, rather than phosphoric acid concentration. P_2O_5 concentration can be converted to an approximate concentration of phosphoric acid by multiplying by 1.3808. Phosphoric acid is converted to an approximate concentration of P_2O_5 by multiplying by 0.7242.

1) 30% Acid Processed to 30% Clarification (Upstream/Mixed Use)

- 30% acid from the 30East Tank (0061) and the 30West Tank (0062) is pumped to either the 30% Clarifier Tank #1 ("#1 Clarifier" - 0034), or 30% Clarifier Tank #2" ("#2 Clarifier" - 0035);
- Underflows (solids) from the #1 Clarifier (0034) and #2 Clarifier (0035) are pumped directly to the East and West Belt Filters for additional acid recovery;
- Overflow (clarified acid) from the #1 Clarifier (0034) overflows to the 30% Acid #1Clarifier Overflow Tank (0036). Overflow from the #2 Clarifier (0035) overflows to the 30% Acid Clarifier Overflow Tank #2 (0037) and the tanks equilibrate via gravity;
- From the #1 Clarifier Overflow Tank (0036) (Mixed Use), acid is pumped to any of the following:
    1. 30East Evap Feed Tank (0025);
    2. 30West Evap Feed Tank (0024);
    3. 30Third Evap Feed Tank (0069);
    4. Green Acid Tank (0064) (BHT Recovery Unit);
    5. DAP1 Granulation scrubber
    6. GMAP3 Granulation scrubber
    7. DAP 2 E & W scrubber seal tanks
- From the #2 Clarifier Overflow Tank (0037) (Mixed Use), acid is pumped to any of the following:
    1. 30East Evap Feed Tank (0025);
    2. 30West Evap Feed Tank (0024);
    3. 30Third Evap Feed Tank (0069);
    4. Green Acid Tank (0064) (BHT Recovery Unit);
    5. DAP1 Granulation scrubber
    6. GMAP3 Granulation scrubber
    7. DAP 2 E & W scrubber seal tanks

- Evaporators are fed from the 30East Evap Feed Tank (0025), 30West Evap Feed Tank (0024), and 30Third Evap Feed Tank (0069).

Note: East and West belt filters accept underflow acid from the #1 Clarifier (0034), #2 Clarifier (0035), and/or the 40% Clarifier Underflow ("40 Underflow Tank" - 0060). The belt filter separates the solids and the acid. The product acid is sent to the 30East Tank (0061), or the 30West Tank (0062). 8% phosphoric acid (2nd stage belt filter wash) is sent to the Phosphoric acid Reactor East-Train, the Phosphoric acid Reactor West-Train, or the Phosphoric acid Reactor Third-Train for reprocessing via the 8% tank. Removed solids (gypsum) are slurried with Process Wastewater and pumped to the South Gypsum stack.

2) Clarified 30% Acid Processed to 40% Clarification (Upstream) or as Feedstock to DAP/MAP (Downstream)

- Clarified 30% acid is pumped from the Green Acid Tank (0064) (BHT Recovery Unit) or the #1 Clarifier Overflow Tank (0036) or the #2 Clarifier Overflow Tank (0037) to the following Downstream Operations (see BHT Recovery Units):
    1. #1 DAP/MAP Cooler Scrubber via either 30 Reg Line ("DAP1 Reg Line") or the AP Line ("DAP1 AP Line");

2. #3 GMAP East or West Scrubber via either the 30 Reg Line ("GMAP Reg Line") or the AP Line ("GMAP AP Line");
3. #2 DAP East Scrubber Seal Tank ("35A Tank" - 0510) via either the 30 Reg Line ("DAP2 Reg Line"), the AP Line ("DAP2 AP Line"), or the 30 Raff Line ("DAP2 Raffinate Line");
4. #2 DAP West Scrubber Seal Tank ("35B Tank" - 0511) via either the DAP2 Reg Line, the DAP2 AP Line, or the DAP2 Raffinate Line;

- Clarified 30% acid from the 30East Evap Feed Tank (0025), 30West Evap Feed Tank (0024), or 30Third Evap Feed Tank (0069) is fed to the 1st Stage Evaporators (1East, #7, 1West, and 1C, or swing evaporators 1A and 1B) where the acid is concentrated to 40% P_2O_5 (Upstream);
- 40% acid from the 1st Stage Evaporators (1East, #7, 1West, and 1C or swing evaporators 1A and 1B) is pumped to the 40% Clarifier Surge Tank ("40 Surge Tank" - 0057) and/or to either the East 40% Clarifier ("40E Clarifier" - 0052), West 40% Clarifier ("40W Clarifier" - 0053) or the Third 40% Clarifier ("40T Clarifier" - 0054) (Upstream);
- Underflow (solids) from the 40E Clarifier (0052), the 40W Clarifier (0053), and the 40T Clarifier (0054) is pumped to the 40% Clarifier Underflow ("40 Sludge Tank" - 0060) but can be pumped directly to the 30E Tank (0061) or the 30W Tank (0062) which are fed to either the #1 Clarifier (0034), #2 Clarifier (0035) or to the East or West Belt Filters (Upstream);
- Overflow (clarified 40% acid) is pumped from the 40E Clarifier (0052), the 40W Clarifier (0053) and/or the 40T Clarifier (0054) to either the AFI Batch Defluorination Tanks A (" A Batch Tank" - 0309), B ("B Batch Tank" - 0319), C ("C Batch Tank" - 0329), or D ("D Batch Tank" - 0719) via the AFI Transfer Line or to 2nd Stage Evaporators (2E, 2W, and 2T) where the acid is concentrated from 40% P_2O_5 to 47% P_2O_5 (Upstream).

<u>3) 40% Acid Processed to 54% Acid (Upstream) or as Feedstock for AFIP or as Feedstock to DAP/MAP (Downstream)</u>

- From the 2nd Stage Evaporators (2E, 2W, and 2T), 47% acid is pumped to 3rd Stage Evaporators (3E, 3W, and 3T) for concentration to 54% acid (Upstream);
- Swing evaporators 1A and 1B can concentrate in a single stage from 40% to 54% acid.
- Concentrated 54% acid is pumped from the 3rd Stage Evaporators (3E, 3W, and 3T) to either the 54% East ROP[6] Clarifier ("54E ROP" - 0014), the 54% West ROP Clarifier ("54W ROP" - 0015) or to the 54% North ROP Clarifier ("54N ROP" - 0016) (Mixed Use);
- Overflows (clarified 54% acid) from the 54E ROP (0014), 54W ROP (0015) and/or 54N ROP (0016) are pumped to any of the following:
    1. #1 DAP Day Tank ("DAP1 54 Tank" - 0501) via 54% Acid Line ("54 Reg Line") or 54% AP Line (DAP2 AP Line) (BHT Recovery Units);
    2. #2 DAP Day Tank ("DAP2 54 Tank" - 0280) via either the 54 Reg Line (DAP2 54% Line) or the 54% AP Line (BHT Recovery Units);
    3. #3 GMAP Day Tank ("GMAP3 54 Tank" - 1071) via either 54 Reg Line or the 54 Spare Line (GMAP 54 Line) (BHT Recovery Units);

[6] ROP – "Run of Plant" 54% unclarified acid

4. AFI Batch Defluorination Tanks A ("Batch Tank A"-0309), B ("Batch Tank B"-0319), C ("Batch Tank C"-0329), or D ("Batch Tank D"-0719) via the AFI 54% Transfer line (Upstream);

- Underflow (solids) from the 54E ROP (0014) and 54W ROP (0015) and 54N ROP (0016) combine and are pumped to the #1 Aging Tank ("#1 Aging" - 0017) which overflows to the #2 Aging Tank ("#2 Aging" - 0018) which feeds Centrifuges North & South (Upstream);
- Underflow (solids) from Centrifuges North & South is gravity fed to the Centrifuge Sludge Tank (0058) (BHT Recovery Unit) which is pumped to the MAP Sludge Tank (0026) (BHT Recovery Unit) or PMAP Day Tank (0220) (BHT Recovery Unit) via the MAP Sludge Line (BHT Recovery Unit);
    1. From the MAP Sludge Tank (0026), solids are: pumped into the DAP1 54 Tank (0501) or GMAP3 54 Tank (1071) or PMAP Day Tank via the GMAP Sludge Line (BHT Recovery Units). The #3 GMAP Day Tank (1071) can also feed PMAP production.
- Overflow (merchant grade 54% acid from Centrifuges North & South (0019)) is pumped via the Centrifuge Product Line to the Centrifuge Product Tank ("Centrifuge Product Tank" - 0071) (BHT Recovery Units) and then pumped to either Merchant Tank B ("Merchant B" - 0011) (Mixed Use) or Merchant Tank C ("Merchant C" - 0012) (Mixed Use) via the Centrifuge Product Line (BHT Recovery Units);
- Merchant grade 54% acid from Merchant B (0011) or Merchant C (0012) (Mixed Use) is pumped to:
    1. DAP1 54 Tank (0501) via the Merchant Transfer Line or 54% AP Line (BHT Recovery Units); and/or
    2. DAP2 54 Tank (0280) via either the 54 Merchant Transfer Line ("DAP2 Merchant Line"), 54 Reg Line or 54% AP Line (BHT Recovery Units); and/or
    3. GMAP3 54 Tank (1071) via either the 54 Reg Line or 54 Spare Line (BHT Recovery Units); and/or
    4. AFI Batch Defluorination Tanks A (0309), B (0319), C (0329) or D (0719) via the AFI Transfer line;

4) 54% Acid Transfer between Mosaic Facilities (BHT Recovery Units)

New Wales has capability of importing and exporting phosphoric acid. The acid is imported or exported via the Truck Unloading/Loading Station (Figure 3) from or to either the 54E ROP (0014) or 54W ROP Tank (0015) in the Clarification Area for further consumption in AFIP or Granulation.

B. Alternative to Standard Acid Flow Configuration

Note: Mosaic New Wales has the capability to route around all clarifier feed tanks, clarifiers, and storage tanks within the phosphoric acid process on a temporary basis, with the exception of the following:

- Phosphoric acid Reactor East-Train
- Phosphoric acid Reactor West-Train
- Phosphoric acid Reactor Third-Train

- Filters
- Gypsum Slurry Tanks
- 1st Stage Evaporators:1E, 7, 1W, 1A, 1B, or 1C
- 2nd and 3rd Stage Evaporators: 2E, 3E, 2W, 3W, 2T, or 3T

C. Phosphoric Acid Transfer to Downstream Operations

1) Acid Transfer between Phosphoric Acid Production to #1 DAP/MAP (BHT Recovery Units)

Mosaic New Wales has two primary transfer lines that serve to transport 30% phosphoric acid between Phosphoric Acid Production and #1 DAP/MAP. The 30 Reg Line and AP Line transport 30% acid from the Green Acid Tank (0064) or the #1 Clarifier Overflow Tank (0036) or the #2 Clarifier Overflow Tank (0037) to the #1 DAP/MAP Cooler Scrubber.

Mosaic New Wales has four primary transfer lines that serve to transport 54% phosphoric acid between Phosphoric Acid Production and #1 DAP/MAP. The 54% Reg Line transports clarified 54% acid from the 54E ROP (0014), 54W ROP (0015), or 54N ROP (0016) to the DAP1 54 Tank (0501). The AP Line transports 54% acid from 54E ROP (0014), 54W ROP (0015), 54N ROP (0016), Merchant B (0011) or Merchant C (0012) tanks to the DAP1 54 Tank (0501). The Merchant Transfer Line transports merchant grade 54% acid from the Merchant B (0011) or Merchant C (0012) tanks to the DAP1 54 Tank (D5T50). Centrifuge Sludge Line transports underflow (54% sludge) from Centrifuges North & South (0019) to MAP Sludge Tank (026) or PMAP Day Tank (220).

All transfer lines described above are cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The locations of the transfer lines are illustrated in Figure 4. The estimated line lengths and cleaning frequencies are listed in Table 4.

2) Acid Transfer between the Phosphoric Acid Plant to #3 GMAP (BHT Recovery Units)

Mosaic New Wales has two primary transfer lines that serve to transport 30% acid between the Phosphoric Acid Plant and #3 GMAP. The 30 Reg Line and AP Line transport 30% acid from the Green Acid Tank (0064) or the #1 Clarifier Overflow Tank (0036) or the #2 Clarifier Overflow Tank (0037) to #3 GMAP East or West Scrubber.

Mosaic New Wales has two primary transfer lines that serve to transport 54% phosphoric acid between Phosphoric Acid Production and #3 GMAP. The 54 Reg Line and 54 Spare Line transport clarified or merchant grade 54% acid from the 54E ROP (0014), 54W ROP (0015), 54N ROP (0016), Merchant B (0011) or Merchant C (0012) to the GMAP3 54 Tank (1071).

All transfer lines described above are cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The locations of the transfer lines are illustrated in Figure 5. The estimated line lengths and cleaning frequencies are listed in Table 5.

3) Acid Transfer between the Phosphoric Acid Plant to #2 DAP (BHT Recovery Units)

Mosaic New Wales has two primary transfer lines that serve to transport 30% phosphoric acid between the Phosphoric Acid Plant and #2 DAP. The 30 Reg Line and the AP Line (also called the Raffinate line that transports30% acid from the Green Acid Tank (0064) or the #1 Clarifier Overflow Tank (0036) or the #2 Clarifier Overflow Tank (0037) to either the DAP2 East Seal Tank (0510) or DAP2 West Seal Tank (0511).

Mosaic New Wales has three primary transfer lines that serve to transport 54% phosphoric acid between the Phosphoric Acid Plant and #2 DAP. The 54 Reg Line and AP Line transport clarified 54% acid from the 54E ROP (0014), 54W ROP (0015), or 54N ROP (0016) to the DAP2 54 Tank (0280). The 54 Merchant Line transports 54% merchant grade acid from Merchant B (0011) or Merchant C (0012) to the DAP2 54 Tank (0280).

All transfer lines described above are cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The locations of these transfer lines are listed in Figure 6. The estimated line lengths and cleaning frequencies are listed in Table 6.

4) Acid Transfer between the Phosphoric Acid Plant and Truck Unloading (BHT Recovery Units)

Mosaic New Wales has one primary transfer line that serves to transport 54% acid from Truck Unloading to either the 54E ROP (0014) or 54W ROP (0015). This line is cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The location of this transfer line is listed in

Figure 3. The estimated line length and cleaning frequencies are listed in Table 3.

5) Acid Transfer between the Phosphoric Acid Plant and Animal Feed Ingredient Production

Mosaic New Wales has one primary transfer line that serves to transport 54% phosphoric acid between the Phosphoric Acid Plant and Animal Feed Ingredient Production. The AFI Transfer Line transports clarified or merchant grade 54% acid from the 54E ROP (0014), 54W ROP (0015), 54N ROP (0016), Merchant B (0011) or Merchant C (0012) to the AFI Batch Defluorination Tanks A (0309), B (0319), C (0329), or D (0719).

All transfer lines described above are cleaned with cleaning solution as needed to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The locations of the transfer lines are illustrated in Figure 2. The line designations and cleaning frequencies are listed in Table 2.

V. Configuration Equipment Designations

A. Phosphoric Acid Plant and Animal Feed Ingredient Production

Figure 11 depicts Upstream, Mixed-Use, and BHT Recovery Units within Mosaic New Wales' Phosphoric Acid Plant.

1. Upstream Operations

The following processes, tanks, and associated equipment used in the production, concentration, transport, and storage of 30% and 40% phosphoric acid, and the concentration of 40% phosphoric acid to 54% phosphoric acid, serve only Upstream Operations:

1) The Phosphoric acid Reactor East-Train, Phosphoric acid Reactor West-Train and Phosphoric acid Reactor Third-Train through filtration at the East, West, and Third Filters, their Filtrate Seal Tanks and their Gypsum Slurry Tanks.
2) Clarification and storage of the 30% acid:
    a. 30East Tank (0061);
    b. 30West Tank (0062);
    c. 30East Evap Feed Tank (0025);
    d. 30West Evap Feed Tank (0024);
    e. 30Third Evap Feed Tank (0069);
    f. #1 Clarifier (0034);
    g. #2 Clarifier (0035)
3) Concentration of 30% acid to 40% acid:
    a. Evaporators 1East, #7, 1West, 1A, 1B, and 1C;
4) Clarification and storage of 40% acid:
    a. 40 Surge Tank (0057);
    b. 40E Clarifier (0052);
    c. 40W Clarifier (0053);

d. 40T Clarifier (0054);
e. 40% Clarifier Underflow (0060);

5) 40% Belt Filter Seal Tank East (0020) and 40% Belt Filter Seal Tank West (0020);
6) Concentration of 40% acid to 54% acid:
   a. Evaporators 2E, 3E, 2W, 3W, 2T, and 3T; swing evaporators 1A and 1B
7) Clarification and storage of 54% acid:
   a. #1 Aging Tank (0017);
   b. #2 Aging Tank (0018);
   c. North & South Centrifuges

Transfer Lines

1) Transfer lines that serve to connect the above listed Upstream Units;

Air Pollution Control Devices (APCDs)

All APCDs within the Phosphoric Acid Plant use once-thru Process Wastewater to scrub fumes from specific units within the phosphoric acid process. The A-10 Fume Scrubber, North Fume Scrubber and South Fume Scrubber serve both Upstream and Mixed-Use Operations. There are no APCDs that serve both Upstream Operations and BHT Recovery Units.

1) East Fume Scrubber evacuates fumes from:
   a. East Attack Tank
   b. East Flash Cooler Condenser Seal Tank
   c. East Pan Filter fume hood vent
   d. East Pan Filter Seal Tank

2) West Fume Scrubber evacuates fumes from:
   a. West Attack Tank
   b. West Flash Cooler Condenser Seal Tank
   c. West Pan Filter fume hood vent
   d. West Pan Filter Seal Tank

3) 3rd Fume Scrubber evacuates fumes from:
   a. 3rd #2 and 3rd #3 Evaporator hot wells
   b. 3rd Attack Tank
   c. 3rd Flash Cooler Condenser Seal Tank
   d. 3rd Filter Pan fume hood vent
   e. Third Pan Filter Seal Tank

4) Area 10 Scrubber evacuates fumes from:
   a. Area 10 West 30% Tank (0061)
   b. #1 30% Clarifier (0034)
   c. #1 30% Clarifier Overflow Tank (0036)
   d. Area 10 East 30% Tank (0062)
   e. #2 30% Clarifier (0035)
   f. #2 30% Clarifier Overflow Tank (0037)
   g. 30% Green Acid Tank (0064)

5) South Fume Scrubber evacuates fumes from:

a. West 30% Evaporator Feed Tank (0024)
b. East 30% Evaporator Feed Tank (0025)
c. 3rd 30% Evaporator Feed Tank (0069)
d. 40% Surge Tank (0057)
e. East 40% Clarifier (0052)
f. West 40% Clarifier (0053)
g. 3rd 40% Clarifier (0054)
h. 40% Clarifier Underflow Tank (0060)
i. Centrifuge Sludge Tank (0071)

6) North Clarification Scrubber evacuates fumes from:
   a. A Merchant Acid Tank (0010) out of service
   b. B-Merchant Acid Tank (0011)
   c. C-Merchant Acid Tank (0012)
   d. East ROP Clarifier (0014)
   e. West ROP Clarifier (0015)
   f. North ROP Clarifier (0016)
   g. East Belt Filter
   h. West Belt Filter
   i. #1 54% Aging Tank (0017)
   j. #2 54% Aging Tank (0018)

2. Animal Feed Ingredients Production

.
The Batch Tank Scrubber evacuates fumes from:
a. A Batch Tank (0309)
b. B Batch Tank (0319)
c. C Batch Tank (0329)
d. D Batch Tank (0719)

<u>Tanks</u>

The following tanks are identified as AFIP Units in the AFIP Plant:

1) Defluorination Tank (DF Tank, 0299)
2) A Batch Tank (0309)
3) B Batch Tank (0319)
4) C Batch Tank (0329)
5) D Batch Tank (0719)

Transfer Lines
1) AFI Transfer line transfers 54% clarified acid and 54% merchant grade acid from the 54 East ROP (0014), 54 West ROP (0015), 54 North ROP (0016), B-Merchant (0011), and C-Merchant (0012) tanks to the A Batch (0309), B Batch (0319), C Batch (0329) and D Batch (0719) tanks at AFIP (Table 2/ Figure 2);

3. Mixed-Use Units

The following tanks with associated equipment (other than those units designated as Downstream) in the Phosphoric Acid Plant are Mixed-use.

Tanks

The following tanks identified as Mixed-Use Units in the Phosphoric Acid Plant serve Upstream Operations but may also serve as storage for feedstocks to Downstream Operations or AFIP:

1) B-Merchant Acid Tank (0011) - feeds Downstream Operations (#1 DAP/MAP, #2 DAP, and #3 GMAP); also feeds AFIP.
2) C-Merchant Acid Tank (0012) - feeds Downstream Operations (#1 DAP/MAP, #2 DAP, and #3 GMAP); also feeds AFIP.
3) 54 West ROP Clarifier (0015) - feeds Upstream Units for production of Merchant Grade Acid (MGA) (#1 Aging Tank (0017) and #2 Aging Tank (0018)) and Downstream Operations (#1 DAP/MAP, #2 DAP, and #3 GMAP); also feeds AFIP.
4) 54 East ROP Clarifier (0014) - feeds Upstream Units for production of MGA (#1 Aging Tank (0017) and #2 Aging Tank (0018)) and Downstream Operations (#1 DAP/MAP, #2 DAP, and #3 GMAP); also feeds AFIP.
5) 54 North ROP Clarifier (0016) - feeds Upstream Units for production MGA (#1 Aging Tank (0017) and #2 Aging Tank (0018)) and Downstream Operations (#1 DAP/MAP, #2 DAP, and #3 GMAP); also feeds AFIP;
6) #1 Clarifier Overflow (0036) – feeds Upstream 30% Evaporator Feed Tanks (30% Evaporator Feed Tank East (0025), 30% Evaporator Feed Tank West (0024) and 30% Evaporator Feed Tank Third (0069) and Downstream Operations (#1 DAP/MAP, #2 DAP and #3 GMAP).
7) #2 Clarifier Overflow (0037) – feeds Upstream 30% Evaporator Feed Tanks (30% Evaporator Feed Tank East (0025), 30% Evaporator Feed Tank West (0024) and 30% Evaporator Feed Tank Third (0069) and Downstream Operations (#1 DAP/MAP, #2 DAP and #3 GMAP).

4. BHT Recovery Units

The following tanks and acid transfer lines are identified as BHT Recovery Units located within the Phosphoric Acid Plant and serve as storage or transport for feedstocks to Downstream Operations. Section V. B Granulation Plants lists the BHT Recovery Units located within the Granulation Plants.

BHT Recovery Units are part of Downstream Operations. Wastes from BHT Recovery Units are recovered into Upstream Operations as designated in this Facility Report or to the BHT itself as described in Section VI (Compliance Projects 1 and 2) of this Report.

The BHTs that Mosaic will install in accordance with Section VI (Compliance Projects) below are also BHT Recovery Units.

Tanks

1) Centrifuge Sludge Tank (0058)

2) 30% Green Acid Tank (0064)
3) Centrifuge Product Tank (0071)

Scrub Tank

a. Scrub Tank (Future SACS make-up tank)

Transfer Lines

1) Truck Unloading Line to either 54E ROP (0014) or 54W ROP (0015)
2) Loading Line from either 54E ROP (0014) or 54W ROP (0015) to the Truck Loading/Unloading Station.
3) 30 Reg Line transfers 30% acid to #1 DAP/MAP Cooler Scrubber, #3 GMAP Scrubber, #2 DAP East Scrubber Seal Tank (0510) or #2 DAP West Scrubber Seal Tank (0511);
4) AP Line transfers 30% or 54% acid to #1 DAP/MAP , #2 DAP East or #2 DAP West;
5) AP line ("GMAP AP line") transfers 30% or 54% acid to #3 GMAP;
6) 54 Reg Line transfers 54% acid from the 54E ROP (0014), 54W ROP (0015), and 54N ROP (0016) to DAP1 54 Tank (0501), DAP2 54 Tank (0280) and GMAP3 54 Acid Day Tank (1071);
7) 54 Merchant Line transfers 54% Merchant Grade Acid from the Merchant B (0011) and Merchant C (0012) tanks to the DAP1 54 Tank (0501) and the DAP2 54 Tank (0280);
8) 30 Raffinate Line transfers 30% acid from the Green Acid Tank (0064) to DAP2 East Seal Tank (0510) and DAP2 West Seal Tank (0511) at #2 DAP;
9) AP Line (MAP Sludge Line) transfers underflow (solids) from the Centrifuge Sludge Tank (0058) or 54E ROP (0014) or 54W ROP Tank (0015) to the MAP Sludge Tank (0026) at #1 DAP/MAP;
10) Centrifuge Product Line transfers 54% Merchant Grade Acid from Centrifuges North & South to the Centrifuge Product Tank (0071) as well as to Merchant B (0011) and Merchant C (0012);
11) 54 Sludge Line transfers 54% acid centrifuge sludge from the MAP Sludge Tank (0026) to the GMAP3 54 Acid Day Tank (1071).

APCDs

None

5. Grandfathered Units

The following units serve Downstream Operations but are not feasibly segregated from Upstream Operations. The wastes from these units may be managed with wastes from Upstream Operations.

None

B. Granulation Plants

Mosaic New Wales granulation process consists of two basic parts: (1) the wet side (e.g., reactor, acid scrubber system); and (2) the dry side (e.g., granulator, dryer).

In addition, Mosaic New Wales operates a re-slurry system that recovers product that is wet and cannot be recovered through the dry side's reclaim system; instead, Mosaic mixes the product in a re-slurry tank with 30% acid, and/or fresh water as a batch process. This slurry is then fed back into the acid scrubber system for recovery.

MAP, DAP and MES manufacturing operations are Downstream Operations; however, the units that are listed below are Recovery Units and are identified within the perimeters shown in Figure 10: Containable Impervious Areas in Granulation.

The following equipment in the Granulation Plants are BHT Recovery Units. Wastes from BHT Recovery Units may be recovered into Upstream Operations as designated in this Facility Report or to the BHT itself as described in Section VI (Compliance Projects 1 and 2) of this Report and Sections 3 and 6 of the BMP:

a. MAP Sludge Tank (0026);
b. #1 DAP Day Tank (0501)
c. #3 GMAP Acid Day Tank (1071)
d. #2 DAP Day Tank (0280)

The following equipment in the Granulation Plants are GHT Recovery Units. Wastes from GHT Recovery Units may be recovered into the granulation process as designated in this Facility Report or to the GHT itself as described in Section VI. (Compliance Projects 4, 5, and 6) of this Report and Section 3 and 6 of the BMP:

a. Granulation re-slurry system;
b. Granulation acid scrubbers;
c. Granulation reactor;
d. Granulator;
e. Dryer;
f. Cooler;
g. Elevators;
h. Screen and milling equipment;
i. Granulation tailgas scrubbers;
j. Acid transfer lines from the Phosphoric Acid storage tanks to the Granulation plant.

VI. Compliance Projects

The projects described below are not all the projects in Appendix 6 (Compliance Schedule) to the Consent Decree but are the projects that are recovery related – the BHT, GHT and reslurry systems. Timeframes for completion of the projects are found in Appendix 6 (Compliance Schedule) to the Consent Decree.

Projects 1 and 2 comprise a plan that will enable Mosaic New Wales to clean Upstream, Mixed-Use, Grandfathered, and BHT Recovery Units and recover value from the wastes as described below.

Projects 4, 5, and 6 are projects related to Downstream Operations in Granulation and the recovery of material in the granulation process.

A. BHT and Cleaning Solution Return Piping Projects

1. Project Description

Project 1: Big Holding Tank and Wash Solution System in the Phosphoric Acid Plant

The Big Holding Tank and wash solution system (together designated the "BHT System") project in the Phosphoric Acid Plant shall install new tank(s) or modify existing tanks, piping, and controls to enable Mosaic to recover the value of wastes as specified in Section VI. A.2. below.

Mosaic will have two BHTs to serve as the BHT system. One of the tanks may be used in services other than BHT when not operating as a BHT (which other use shall not alter or nullify the status of the backup tank as a BHT Recovery Unit or preclude its use as a part of Upstream Operations, if appropriate). The BHT backup tank will be used during cleaning and/or maintenance of the BHT tank. Cleaning waste from the BHT backup tank will be handled in the same way as the cleaning waste from the BHT itself as described in Section 2. Phosphoric Acid Plant Cleaning Procedures of the BMP.

In addition, new or upgraded pumps, motors, small pump tanks, and instrumentation may be needed to ensure the return to the BHT cleaning wastes and spills and leaks of: (1) phosphoric acid, sulfuric acid, SACS, PACS, or BHT Effluent; and (2) NHACS, Process Wastewater, or Phosphogypsum Stack System Wastewater when mixed with any of the preceding solutions due to spills, leaks, or cleaning of leaks and spills. Project 1 necessarily coincides with Project 2 below.

Project 2: Cleaning Solution Return Piping

Mosaic will install new piping to enable Mosaic to: (1) clean phosphoric acid transfer lines from the Phosphoric Acid Plant to the 1 DAP/MAP, #2 DAP and #3 GMAP Granulation Plants and return those cleaning wastes to the BHT; and (2) clean BHT Recovery Units located in the Granulation Plants and return those wastes to the BHT.

2. Project Operations

The wash solution system will be comprised of the BHT and the SACS make up tank(s), along with pumps and piping to supply cleaning solution to units that are part of Upstream Operations or AFIP, or identified as Mixed-Use, Grandfathered, or BHT Recovery Units.

Phosphogypsum Stack System Wastewater, Process Wastewater, fresh water, condensate or other water sources will be mixed with sulfuric acid, phosphoric acid, or BHT Effluent in the SACS wash make up tank(s) or BHT. The equipment and lines that are part of Upstream Operations or are identified as Mixed-Use, Grandfathered, or BHT Recovery Units may be washed with SACS either from the BHT or the SACS wash make up tank and the solutions may be returned to the BHT.

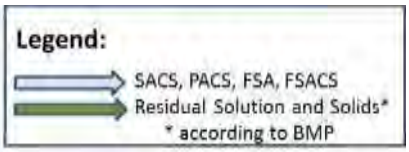
In addition, the BHT will enable Mosaic to recover the value of wastes generated from the use of SACS, PACS, Non-Hazardous Aqueous Cleaning Solution, Process Wastewater, Phosphogypsum

Stack System Wastewater, BHT Effluent from pipes, tanks, process equipment, or other storage or transport units that: (i) are part of Upstream Operations or AFIP, (ii) serve to manage, store, or transport Bevill-Exempt Wastes; or (iii) are identified as Mixed-Use, Grandfathered Units, or BHT Recovery Units in this Facility Report. In accordance with the BMP, the BHT will also enable Mosaic to recover spills and leaks in Containable Impervious Areas described in Section VII of this Report. The BHT may also receive transfers from the GHT in accordance with Section VI. Compliance Projects, B.2. Project Operations.

The BHT shall in turn return the recoverable streams into Upstream Operations where their values are recovered or managed through the following (Diagram 1: BHT Inputs and Effluents):

a. as an intermediate wash on the filter, prior to the final cake wash, to inhibit scale formation. This wash ultimately circulates back to the reactor (attack tank); and/or
b. as direct make up to the Phosphoric acid reactors; and/or
c. added to the rock grinding circuit where it will be pH adjusted using limestone slurry; this mixture ultimately ends up in the slurry fed into the phosphoric acid reactors; and/or
d. discharged to the Phosphogypsum Stack System, if in compliance with the LDR standards set forth in 40 C.F.R. Part 268, Subpart D; and/or
e. If the P_2O_5 content is at least 8%, the BHT Effluent may be placed in the evaporator feed tanks for P_2O_5 recovery.

Diagram 1: BHT Inputs and Effluents[7]



[7] This Figure is a simplification of the management requirements for BHT inputs and effluents. Nothing in this Figure substitutes for or overrides the narrative descriptions in this Facility Report.

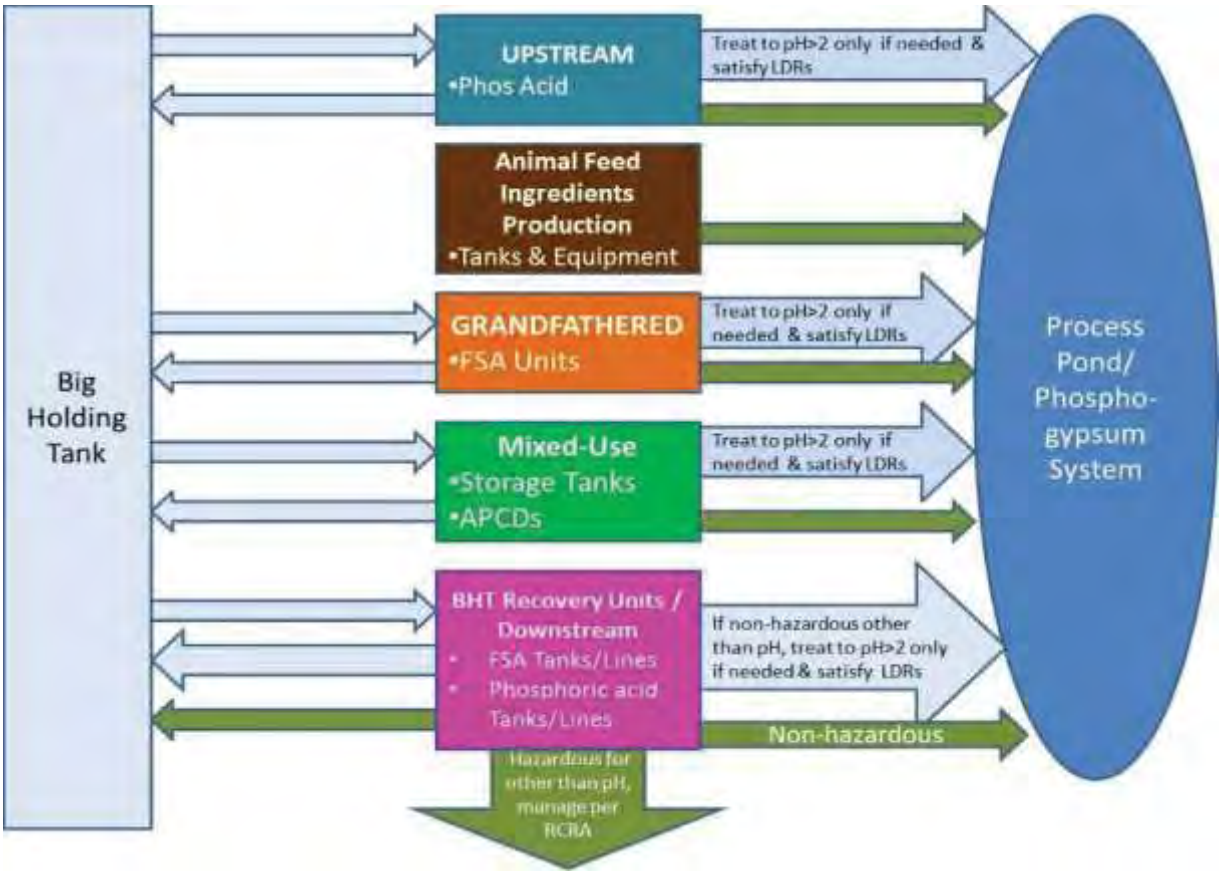
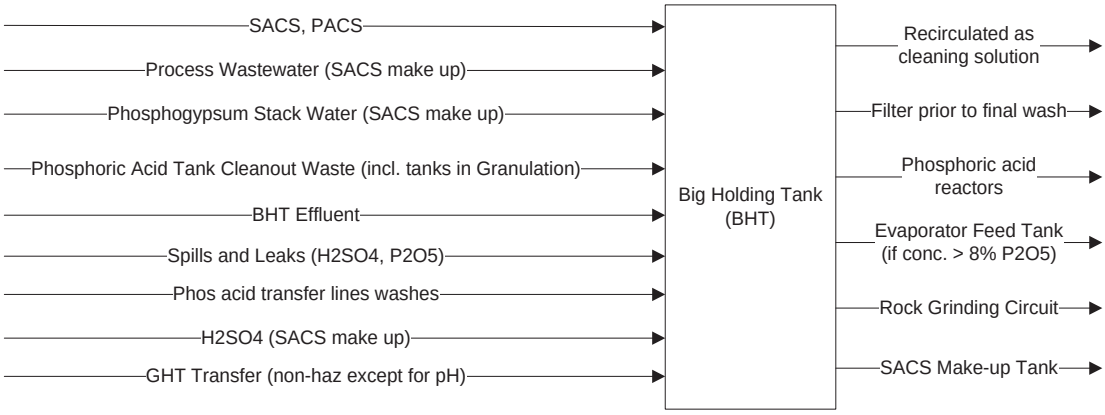


Diagram 2: BHT Inputs and Effluents



* Spills and Leaks include: P2O5, H2SO4, and mixtures of the proceeding with Process Wastewater, Phosphogypsum Stack Water and NHACS

B. GHT Related Projects

1. Project Descriptions

Project 4: Upgrade Granulation Plants' Pads and Sumps (Upgraded Recovery System)

Mosaic will modify or install, as needed, containment pads and sumps in each granulation plant to improve the capture of spills, leaks and cleaning solutions so materials may be returned to the granulation process via the GHT. This will include the four (4) granulation plants at New Wales - #1 DAP/MAP, #3 GMAP, #2 DAP East and #2 DAP West, as identified in the New Wales Facility Report.

Project 5: Granulation Plant Re-slurry System (DAP2 East and West)[8]

Mosaic will install a product recovery tank, hopper, piping, steam feed, valves, agitator, and pumps to recover wet fertilizer product from the DAP 2 East & West plants. The resulting slurry will be fed to the acid scrubber system for consumption in the granulation process.

Project 6: Granular Holding Tank and Wash Solution System in the Granulation Plant

Mosaic will install two Granular Holding Tank (GHT)[9] systems- one in DAP2 East & West and the other in #1 DAP/MAP and #3 GMAP (Figure 14). The GHT plus piping, pumps, and instrumentation (together the "GHT system") will transport and recirculate wash solution between GHT Recovery Units and the GHT and consume the wash solution in the granulation plants (DAP2 East & West, #1 DAP/MAP and #3 GMAP) as specified in Section VI.B.2 below.

2. Project Operations

The GHT system will enable Mosaic to recover the value of wastes generated from the use of SACS, PACS, Non-Hazardous Aqueous Cleaning Solution, Process Wastewater, Phosphogypsum Stack System Wastewater, or GHT Effluent from pipes, tanks, process equipment, or other storage or transport units identified as GHT Recovery Units or manage those wastes as described in Section 3. Granulation Plants Cleaning Procedures of the BMP. In accordance with the BMP, the GHT will also enable Mosaic to recover spills and leaks in Containable Impervious Areas described in Section VII of this Report.

A. The GHT shall in turn reuse or recover the recoverable streams as follows:
    a. consumed in the acid scrubber system for consumption in the granulation process; and/or
    b. consumed directly into the granulation reactor; and/or
    c. added to the re-slurry system; and/or

[8] DAP1 and GMAP3 already have reslurry systems for each plant.
[9] Although Mosaic plans to install more than one GHT, for simplicity this Report will use the singular "GHT" to describe any and all GHTs that will be installed at Mosaic's New Wales facility.

d. recirculated to clean GHT Recovery Units; and/or

B. In GHT cleaning situations identified in Section 4, GHT Cleaning - GHT Recovery Units, of the BMP, Mosaic may transfer the contents of the GHT to the BHT if they are RCRA non-hazardous. If the contents of the GHT are hazardous only for the RCRA corrosivity characteristic (pH ≤ 2), Mosaic may transfer the contents to the BHT no more than two times per calendar year. The GHT shall then be washed with a cleaning solution (SACS, PACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS). If the wash solution is hazardous only for RCRA corrosivity (pH ≤2), it may be transferred to the BHT not more than two times per calendar year. If the solution is non-hazardous, it can be transferred to the BHT or sent to the Phosphogypsum Stack System.

C. In addition to GHT cleaning situations in B, in non-routine situations (such as mechanical failure in the Granulation Plant, unexpected plant outages, electrical power failures, hurricanes or similar weather events or unexpected problems during startups) and if the GHT is (or imminently will be) at or above 90% (full), Mosaic may transfer GHT Effluent if non-hazardous or hazardous only for the RCRA corrosivity characteristic (pH ≤ 2) to the BHT, in order to create additional capacity in the GHT, until the GHT's capacity is at 50% provided that Mosaic:

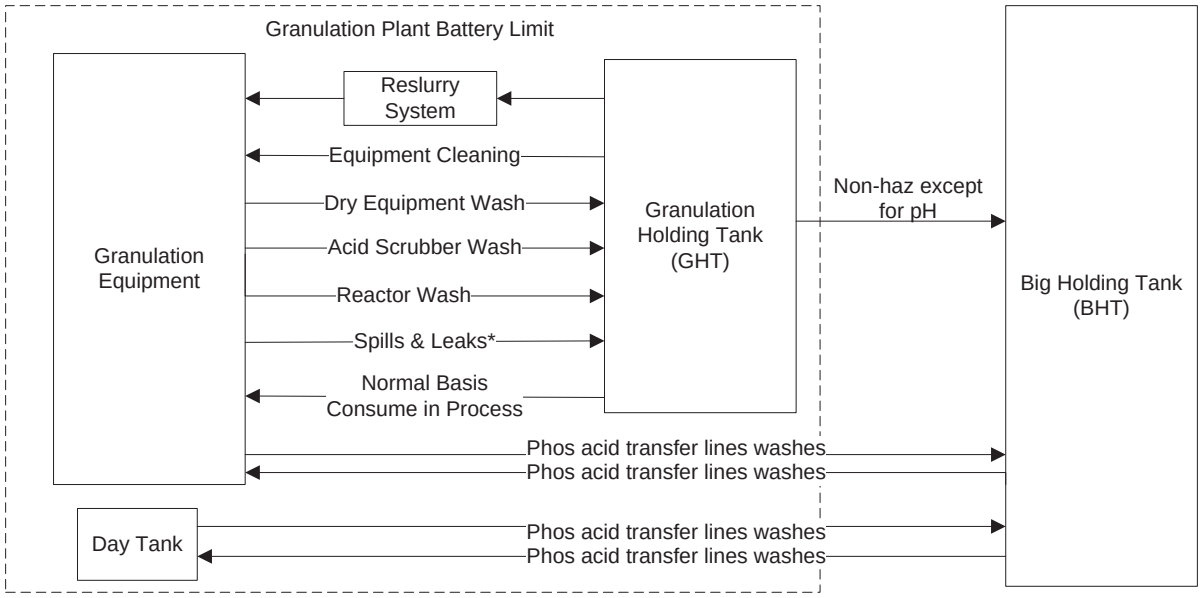
i) Manages use of the GHT to BHT transfer line by locking the valve on the transfer line or a system interlock requiring a code to activate;

ii) Obtains approval from its area manager to make the transfer; and

iii) Includes information on each transfer in its reports to the EPA and FDEP as required in Paragraph 41 of the CD.

If Mosaic chooses not to reuse or recover the GHT Effluent as described above, the GHT Effluent must instead be managed in accordance with RCRA.

Diagram 3: GHT Inputs and Effluents



* Spills and Leaks include: P2O5, H2SO4 and mixtures of the proceeding with Process Wastewater, Phosphogypsum Stack Water and NHACS

VII. Containment of Phosphoric Acid Product Spills and Leaks

Any impervious[10] manufacturing or storage areas not identified in this section as Containable Impervious Areas are considered to be Non-Segregable Areas.

Non-Segregable Areas

Mosaic New Wales Phosphoric Acid Plant has approximately 80% impervious surfaces with about 50% of it being acid brick and vinyl ester resin lined. The concrete pad is sloped towards concrete-lined trenches that transport any leaks and spills to the Phosphogypsum Stack System (Figure 8). Process water flows through the trenches at a rate of approximately 86,000 GPM to the Phosphogypsum Stack system. Due to the engineered slope of the concrete pad in these areas and the configuration of the Phosphoric Acid Plant, small spills and leaks of phosphoric acid and sulfuric acid onto the concrete pad cannot be feasibly segregated ("non-segregable areas") and are mixed in the trenches with the Process Wastewater flowing to the Phosphogypsum Stack system and managed pursuant to Appendix 5, BMP. Mosaic may manage small spills and leaks of acid within the concrete areas of the Phosphoric Acid plant (Figure 8**)** in accordance with the BMP.

Containable Impervious Areas

a. Phosphoric Acid Unloading (post BHT project) (Figure 9)

[10] Note, the use of the term "impervious" in this section does not refer to a particular definition of impervious or a particular leakage rate, but instead is used to mean a surface barrier to penetration, such as concrete, liners, steel, epoxy, etc. The term impervious in this section does not include gravel or soil.

b. GMAP3 Phosphoric Acid Tank (Figure 8)
c. GMAP3 (Figure 8)
d. DAP1 54 Tank (Figure 8)
e. DAP1 Plant (Figure 8)
f. PMAP (Figure 8)
g. DAP2 East (Figure 8)
h. DAP2 54 Day Tank (Figure 8)
i. DAP2 West (Figure 8)

Spills and leaks of phosphoric acid, sulfuric acid, and cleaning solutions onto impervious areas designated by Figure 9 and Figure 10 ("containable impervious areas") shall be separately contained and then recovered in accordance with the BMP. The foregoing shall not relieve Mosaic of its obligations under any applicable law.

Other Areas

Any leak or spill of a hazardous material, including phosphoric acid and sulfuric acid, that is not contained within the Containable Impervious Areas or Non-Segregable Areas of the plant shall be managed in accordance with the BMP. The foregoing shall not relieve Mosaic of its obligations under any applicable law.

VIII. Proposed Phosphoric Acid Production Operations

Mosaic has advised EPA and FDEP that it is considering one or more of the following projects at its New Wales facility, but planning has not evolved to where detailed information is available.

Figure 11 depicts Upstream, Mixed-Use, and BHT Recovery Units. In the event that Mosaic reconfigures its Facility in accordance with Figure 12 and Figure 13 or Diagrams 4-7, then Figure 12 and Figure 13 shall replace Figure 11 as identifying Upstream Operations, Grandfathered Units, BHT Recovery Units and Mixed-Use Units for the Phosphoric Acid plant.

However, the Consent Decree does not bind Mosaic to implement the proposed project(s) as depicted in Figure 12 and Figure 13 or Diagrams 4-7. If Mosaic chooses to implement any changes through a different process than any of those depicted in Figure 12 and Figure 13 or Diagrams 4-7 in this Facility Report, then it shall be modified prior to implementation pursuant to Section XVIII (Modification) of the Consent Decree and EPA and FDEP will determine whether the new process as designed involves Upstream Units, Mixed-Use Units, BHT Recovery Units or Downstream Units and amend the Facility report to memorialize those determinations consistent with the descriptions below. Such determination shall be conditioned upon the new process being built substantially as designed. If the new process deviates from that standard, EPA and FDEP will determine whether the new process as built involves Upstream Operations, Mixed-Use Units, Grandfathered Units, BHT Recovery Units or Downstream Operations and amend the Facility Report to memorialize those determinations consistent with the descriptions below.

*

[redacted]

** = Portions of this section have been omitted pursuant to a request for confidential treatment. An unredacted version of this section has been filed separately.*

*

[redacted]

** = Portions of this section have been omitted pursuant to a request for confidential treatment. An unredacted version of this section has been filed separately.*

*

[redacted]

IX. Non-Phosphoric Acid Production Proposed Projects

Mosaic has advised EPA and FDEP that it is considering one or more of the following projects at its New Wales Facility, but planning has not evolved to where detailed information is available. Once Mosaic decides to implement one of these proposed project and the project has identifiable units

** = Portions of this section have been omitted pursuant to a request for confidential treatment. An unredacted version of this section has been filed separately.*

associated with the process, Mosaic should confer with FDEP and EPA to assign unit designations and modify the Facility Report.

[redacted]

X. Authorized Future Installations

This section applies to future installations that were not considered based on current or proposed projects.

A. Procedure

The projects in (B) below will be deemed part of Upstream Operations, Mixed-Use Units, BHT Recovery Units or Grandfathered Units as applicable, when installed within contained concrete areas and will not require prior approval by FDEP or EPA provided that:

i) Mosaic's Phosphogypsum Stack System is in compliance with the requirements of Appendix 1, Attachment B (Groundwater and Zone of Discharge Requirements), Attachment C (Phosphogypsum Stack System Construction and Operational Requirements) of the Consent Decree, and that Mosaic is in compliance with the Financial Assurance requirements of the Consent Decree (Paragraph 25 and Appendix 2); and

ii) Mosaic provides EPA and FDEP with written notice at least 90 Days in advance of the reconfiguration or installation of said project.

However, if as a result of circumstances that require Mosaic to install or reconfigure such equipment in less than 90 Days from the time a decision is made to undertake such action, Mosaic shall provide written notice to FDEP and EPA as soon as possible and in all events prior to the installation or reconfiguration of such equipment;

(iii) Mosaic obtains and/or modifies any permit(s) required by local, state, or federal agencies; and

(iv) Mosaic submits to FDEP and EPA for approval a modified version of this Facility Report with the changes identified at least 60 Days in advance of the reconfiguration or installation of said project; and

(v) if applicable, Mosaic submits to FDEP and EPA for approval any modified section(s) of Appendix 5, BMP at least 45 Days in advance of the reconfiguration or installation of said project.

B. Future Installations

1. Any existing tank within the battery limits of the Phosphoric Acid Plant (Figure 11), which may or may not be storing phosphoric acid, can be converted to phosphoric acid storage service up to, but excluding Merchant Grade Acid. Any tank placed into phosphoric acid storage service shall be structurally adequate and physically compatible with the contents of the tank.

2. Up to a total of two (2) new phosphoric acid tanks storing First Saleable Product may be added within the battery limits of the Phosphoric Acid Plant (Figure 11), where the stored

* = *Portions of this section have been omitted pursuant to a request for confidential treatment. An unredacted version of this section has been filed separately.*

phosphoric acid product in the new tank(s) will be sent for use in Granulation so long as the new unit performs the same function as the existing Grandfathered or BHT Recovery Unit tank identified in this Facility Report. The installation of more than two (2) such tanks shall require advance approval by EPA and FDEP in order to be considered a BHT Recovery Unit or Grandfathered Unit.

3. APCDs (scrubbers) may be newly installed, replaced, or modified if they are servicing Upstream Units, Animal Feed Ingredient Production, or Mixed-Use Units identified in this Facility Report. APCDs may not be reconfigured to service any Downstream Operations or any chemical processes which they are not serving as identified in this Report.

4. Phosphoric acid piping systems and underflow piping systems associated with Upstream, Mixed-Use Units, BHT Recovery Units, or Grandfathered Units identified in this Facility Report may be installed, replaced, or modified provided that the replacement or modified systems are located within the battery limits of the Phosphoric Acid Plant (Figure 11) or the Tank Farms, excluding DAP, and serve only the phosphoric acid production operations identified in this Report for those Upstream, Mixed-Use Units, BHT Recovery Units, or Grandfathered Units.

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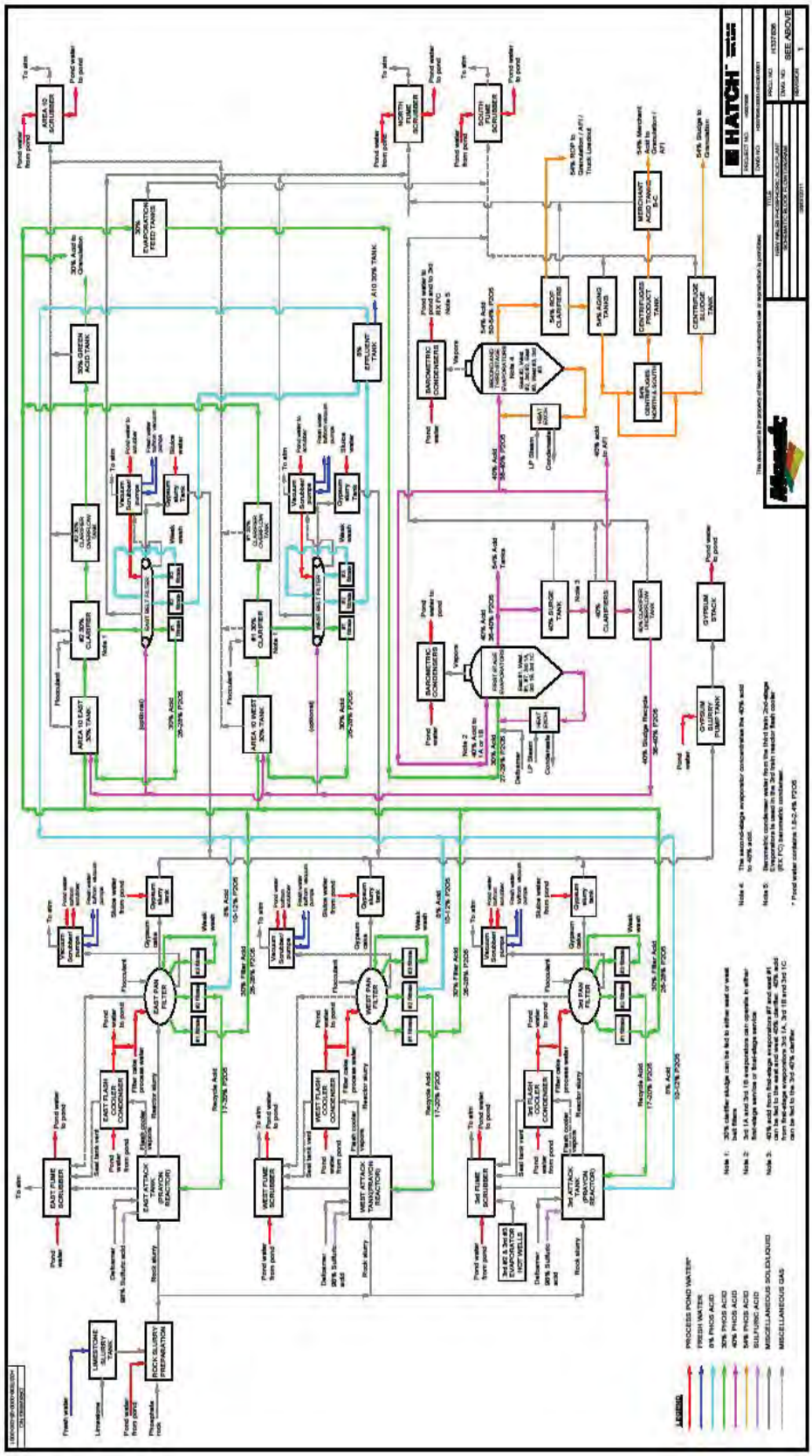
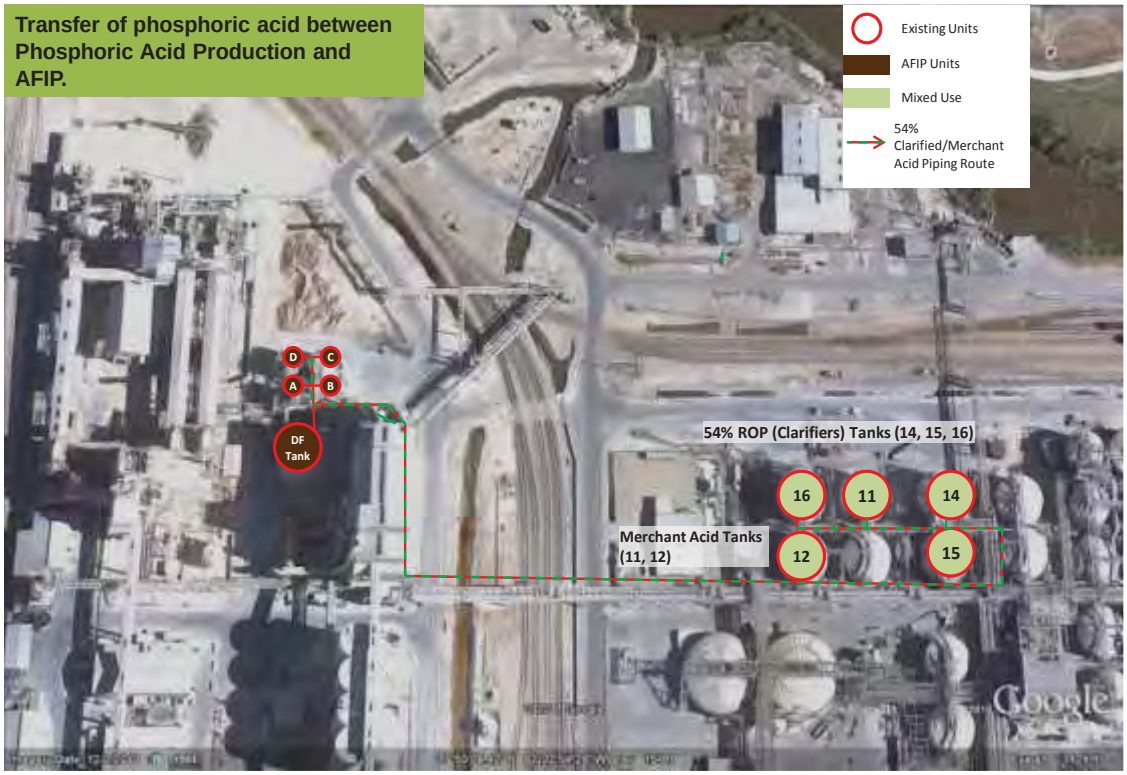


Figure 1: Mosaic New Wales Process Flow Diagram.

Table 2: Transfer of phosphoric acid between Phosphoric Acid Production and AFIP (corresponds with Figure 2)

	Service	Name	Description	Cleaning Frequency	Estimated Length (ft) [11]
Phosphoric Acid Plant to AFP Plants	54% Acid	AFI Transfer Line	Transfers clarified or merchant grade 54% acid from the 54E ROP, 54W ROP, 54N ROP, B-Merchant or C-Merchant tanks to batch tanks A, B, C or D tanks.	As needed	1,420
	Estimate for Existing Lines		Total Estimated Piping Length (ft)		1420
			Estimated Vertical Runs- Basis 20% Factor (ft)		280
			Total Estimated Piping Length (ft)		1700

Figure 2: Transfer of phosphoric acid between Phosphoric Acid Production and the AFIP Plant (corresponds with Table 2)



[11] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Table 3: BHT Recovery Unit transfer of phosphoric acid between the Phosphoric Acid Plant and Truck Loading/Unloading (corresponds with

Figure 3)

	Service	Name	Description	Cleaning Frequency	Estimated Length (ft)[12]
Truck Unloading to/from Phosphoric Acid Plant	54% Acid	Transfer Line	Transfers 54% acid between Truck Loading/Unloading and the 54E ROP, 54W ROP	As needed	230
	54% Acid	Loading Line	Transfers 54% acid between Truck Loading/Unloading and the 54E ROP, 54W ROP	As needed	230
	Estimate for Existing Lines		Estimate Length - Plan View (ft)		230
			Estimated Vertical Runs- Basis 20% Factor (ft)		50
			Total Estimated Piping Length (ft)		280

[12] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Figure 3: BHT Recovery Unit transfer of phosphoric acid between the Phosphoric Acid Plant and Truck Loading/Unloading (corresponds with Table 3)

Table 4: BHT Recovery Units transfer of phosphoric acid between Phosphoric Acid Production and #1 DAP/MAP and PMAP (corresponds with Figure 4)

	Service	Name	Description	Cleaning Frequency	Estimated Length (ft)[13]
	30% Acid	30 Reg	Transfers 30% acid from Green Acid Tank to #1 DAP/MAP Scrubber	As needed	1,000
	30% Ac id or 54% acid	AP	Transfers 30% acid from Green Acid Tank to #1 DAP/MAP Scrubber or Transfer clarified 54% acid from the 54E ROP, 54W ROP or 54N ROP to the DAP1 54 Tank	As needed	1,000
	54% Acid	54 Reg Line	Transfer clarified 54% acid from the 54E ROP, 54W ROP or 54N ROP to the DAP1 54 Tank	As needed	1,100
	54% Acid	Merchant Transfer Line	Transfers 54% Merchant Grade Acid from the Merchant B or Merchant C tanks to the DAP1 54 Tank.	As needed	1,100
	54% Centrifuge Sludge	MAP Sludge Line	Transfers 54% acid sludge from the Centrifuge Sludge Tank, 54E ROP or 54W ROP to the MAP Sludge Tank or PMAP Day Tank.	As needed	1080

[13] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

	Estimate for Existing Lines	Estimate Length - Plan View (ft)	5280
		Estimated Vertical Runs - Basis 20% Factor (ft)	1060
		Total Estimated Piping Length (ft)	6340

Figure 4: BHT and GHT Recovery Units transfer of phosphoric acid between Phosphoric Acid Production and #1 DAP/MAP and PMAP (corresponds with Table 4)

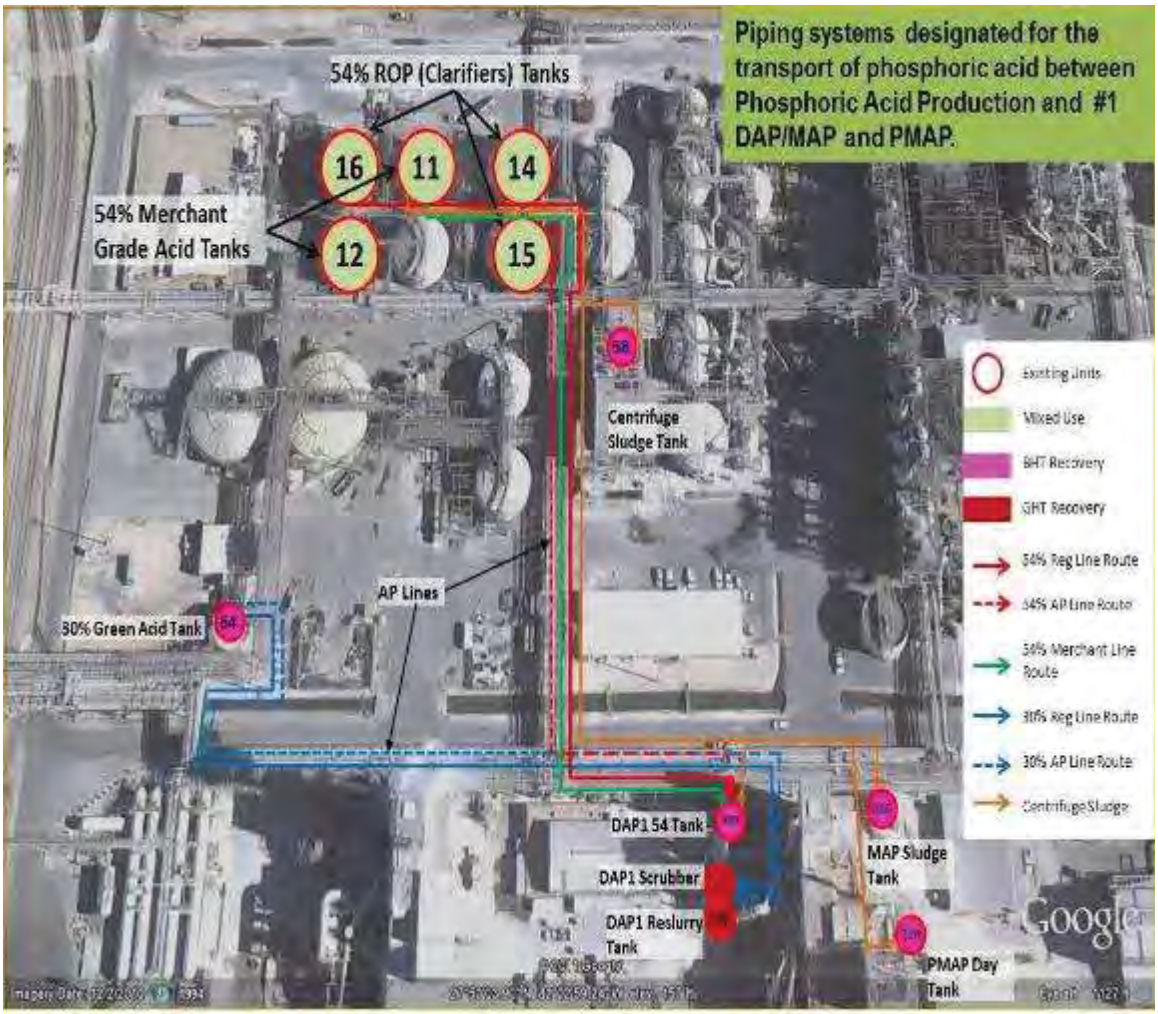


Table 5: BHT Recovery Units for transfer of phosphoric acid between Phosphoric Acid Production and #3 GMAP (corresponds with Figure 5)

	Service	Name	Description	Cleaning Frequency	Estimated Length (ft)[14]
Phosphoric Acid Plant to #3 MAP	30% Acid	30 Reg	Transfers 30% acid from Green Acid Tank to #3 GMAP Scrubber	As needed	580
	54% Acid	54 Reg Line	Transfer clarified or merchant grade acid from the E ROP, W ROP or N ROP, B-Merchant or C-Merchant Tanks to the #3 GMAP 54 Acid Day Tank	As needed	950
	54% Sludge	Sludge Line	Transfers 54% acid centrifuge sludge from the MAP Acid Sludge Tank (026) to the #3 GMAP 54 Acid Day Tank	As needed	590
	54% Acid	54 Spare Line	Transfer clarified or Merchant Grade Acid from the E ROP, W ROP or N ROP, B-Merchant or C-Merchant Tanks to the #3 GMAP 54 Acid Day Tank	As needed	950
	Estimate for Existing Lines		Estimate Length - Plan View (ft)		3,650
			Estimated Vertical Runs- Basis 20% Factor (ft)		730
			Total Estimated Piping Length (ft)		4,380

[14] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Figure 5: BHT Recovery Units for transfer of phosphoric acid between Phosphoric Acid Production and #3 GMAP (corresponds with Table 5)

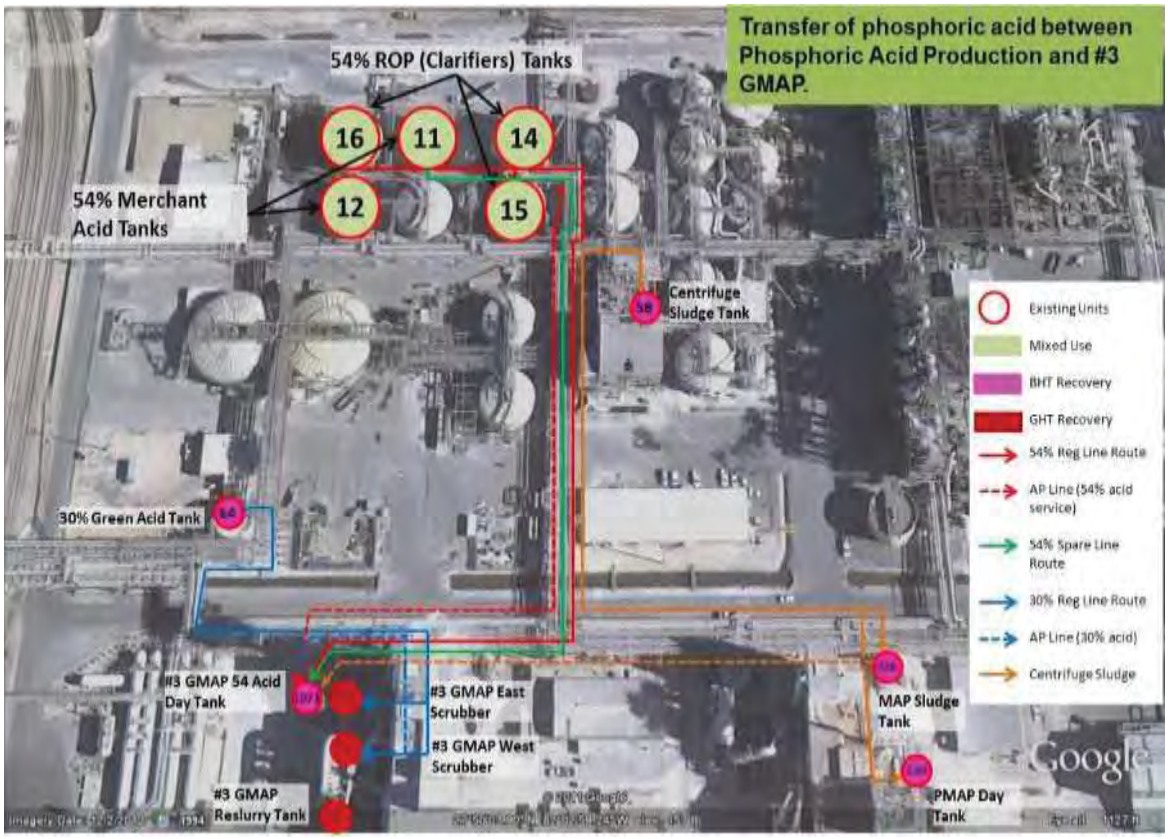


Table 6: BHT Recovery Units for transfer of phosphoric acid between Phosphoric Acid Production and #2 DAP (corresponds with Figure 6).

	Service	Name	Description	Cleaning Frequency	Estimated Length (ft)[15]
Phosphoric Acid Plant to #2 DAP/MAP	30% Acid	30 Reg	Transfers 30% acid from Green Acid Tank to #2 DAP/MAP Scrubber	As needed	1,450
	30% Acid	30 Raffinate or AP	Transfers 30% acid from Green Acid Tank to #2 DAP/MAP Scrubber	As needed	1,450
	54% Acid	54 Reg Line	Transfers clarified 54% acid from the E ROP, W ROP or N ROP to the DAP2 54 Tank	As needed	2,600
	54% Acid	Merchant Transfer Line	Transfers 54% Merchant Grade Acid from the B-Merchant or C-Merchant tanks to the DAP2 54 Tank.	As needed	2,600
	30% Acid or 54% Acid	AP	Transfers 30% acid from Green Acid Tank to #2 DAP/MAP Scrubber; or Transfers clarified 54% acid from E ROP, W ROP or N ROP to the DAP2 54 Tank	As needed	2,600
	Estimate for Existing Lines		Estimate Length- Plan View (ft)		10,700
			Estimated Vertical Runs- Basis 20% Factor (ft)		2,140
			Total Estimated Piping Length (ft)		12,840

[15] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Figure 6: BHT Recovery Units for transfer of phosphoric acid between Phosphoric Acid Production and #2 DAP (corresponds with Table 6)

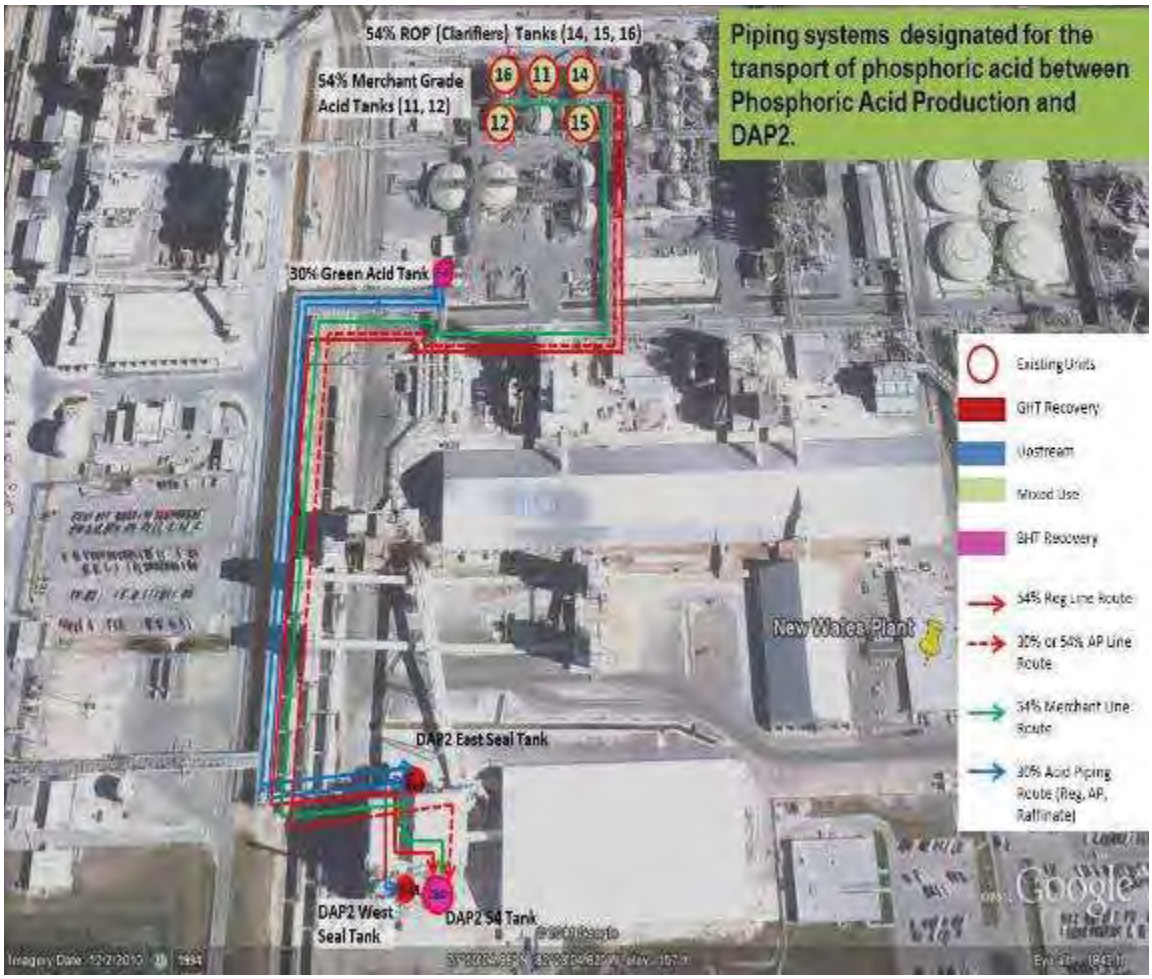


Table 7: BHT Recovery Units for transfer of phosphoric acid between Centrifuge Product Tank and Merchant Grade Acid Tanks (corresponds with Figure 7)

	Service	Name	Description	Cleaning Frequency	Estimated Length (ft)[16]
Centrifuge to Merchant Tank Transfer	Merchant Acid	Centrifuge Product Line	Transfers merchant acid from centrifuges to Centrifuge Product Tank (0071) to B-Merchant and C-Merchant Tanks.	As needed	390
	Estimate for Existing Lines		Estimate Length - Plan View (ft)		390
			Estimated Vertical Runs - Basis 20% Factor (ft)		80
			Total Estimated Piping Length (ft)		470

Figure 7: BHT Recovery Units for transfer of phosphoric acid between Centrifuge Product Tank and Merchant Grade Acid Tanks (corresponds with Table 7)

[16] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Figure 8: Ditch and Swale Diagram at Phosphoric Acid Plant

6: 8% Tank (B2 Filtrate off Belt Filters)
7: East Train Filtrate Seal Tank
8: West Train Filtrate Seal Tank
9: Third Filtrate Seal Tank
11: B-Merchant Acid Tank
12: C-Merchant Acid
14: East ROP (54% P2O5) Clarifier
15: West ROP (54% P2O5) Clarifier
16: North ROP (54% P2O5) Clarifier
17: No. 1 Aging Tank (54% P2O5)
18: No. 2 Aging Tank (54% P2O5)
19: North & South Centrifuges (52% P2O5)
20: 40% Belt Filter Seal Tank E; 40% Belt Filter Seal Tank W

24: West 30% Evap Feed
25: East 30% Evap Feed
1st Stage Evaps – #7, 1E, 1W, 1A, 1B, 1C
2nd Stage Evaps – 2E, 2W, 2T
3rd Stage Evaps – 3E, 3W, 3T
34: Area 10 #1 30% Clarifier
35: Area 10 #2 30% Clarifier
36: #1 Clarifier Overflow
37: #2 Clarifier Overflow
45: 3rd Condensate Transfer Tank
47: Cooling Water Pump Tank
48: East Train Phosphoric Acid Reactor
49: West Train Phosphoric Acid Reactor

51: Third Train Phosphoric Acid Reactor
52: East 40% Clarifier
53: West 40% Clarifier
54: 3rd 40% Clarifier
57: 40% Surge
58: Centrifuge Sludge Tank
60: 40% Clarifier Underflow/MAP
61: Area 10 East 30% Acid (30% clarifier feed)
62: Area 10 West 30% Acid (30% clarifier feed)
64: Green Acid (30% P2O5)
66: Scrub Tank
69: 3rd 30% Evap Feed
71: Centrifuge Product Tank

Figure 9: Containable Impervious Areas in Phosphoric Acid (post BHT project)

Figure 10: Containable Impervious Areas in Granulation

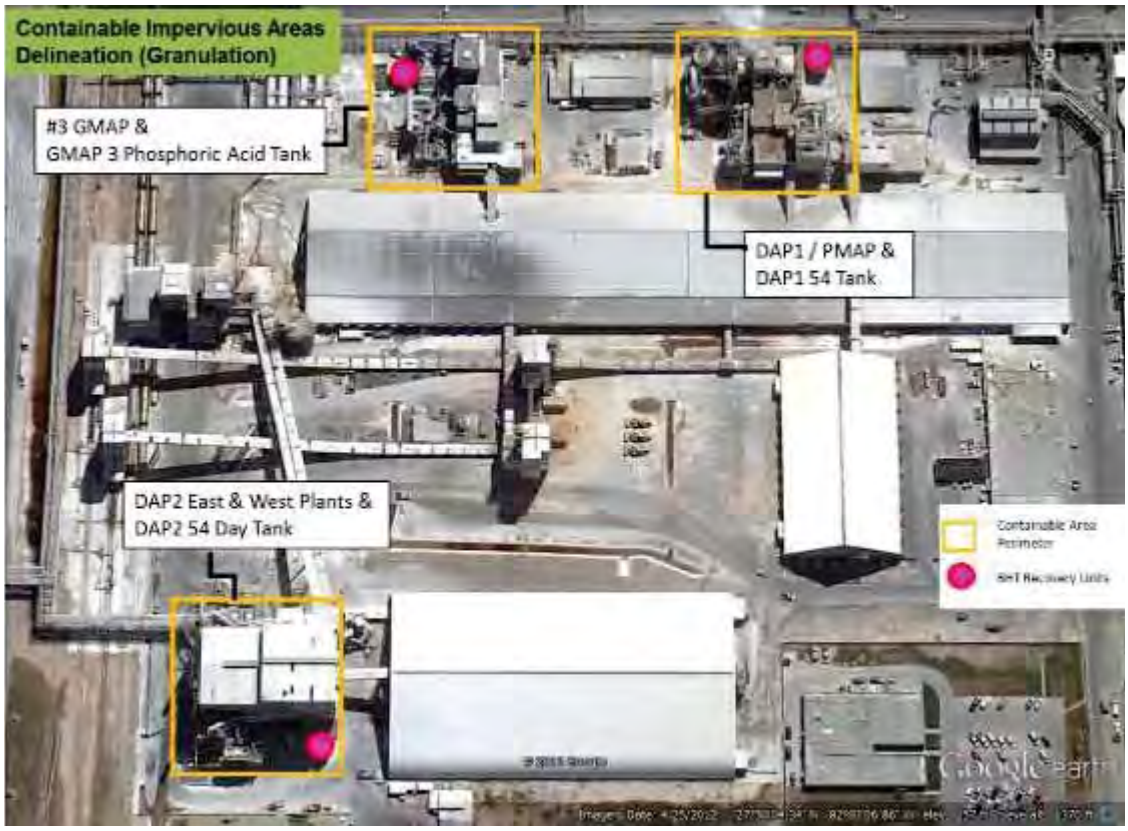
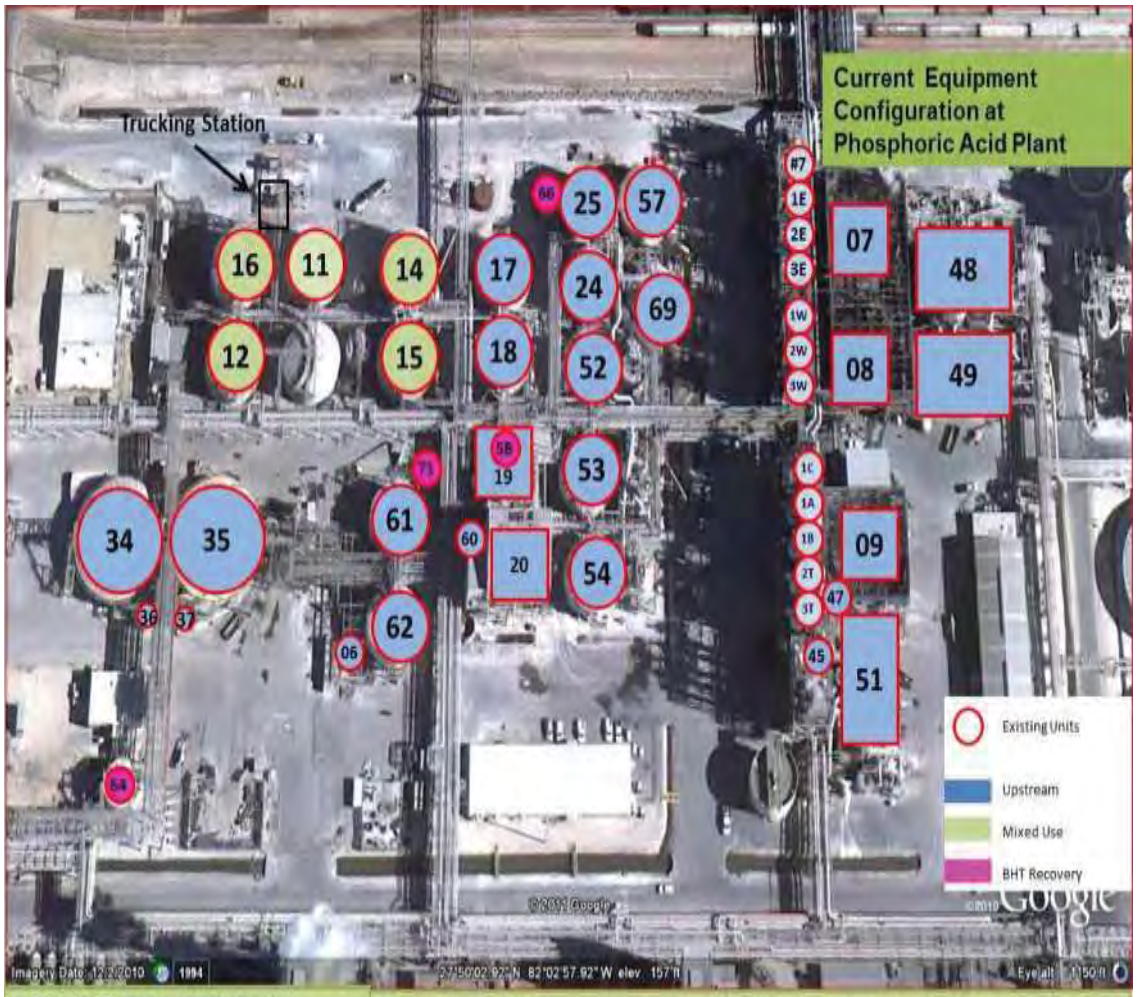


Figure 11: Equipment Configuration at Phosphoric Acid



6: 8% Tank (#2 Filtrate off Belt Filters)
7: East Train Filtrate Seal Tank
8: West Train Filtrate Seal Tank
9: Third Filtrate Seal Tank
11: B-Merchant Acid Tank
12: C-Merchant Acid
14: East ROP (54% P2O5) Clarifier
15: West ROP (54% P2O5) Clarifier
16: North ROP (54% P2O5) Clarifier
17: No. 1 Aging Tank (54% P2O5)
18: No. 2 Aging Tank (54% P2O5)
19: North & South Centrifuges (52% P2O5)
20: 40% Belt Filter Seal Tank E, 40% Belt Filter Seal Tank W
24: West 30% Evap Feed
25: East 30% Evap Feed
1st Stage Evaps - #7, 1E, 1W, 1A, 1B, 1C
2nd Stage Evaps – 2E. 2W, 2T
3rd Stage Evaps – 3E, 3W, 3T
34: Area 10 #1 30% Clarifier
35: Area 10 #2 30% Clarifier
36: #1 Clarifier Overflow
37: #2 Clarifier Overflow
45: 3rd Condensate Transfer Tank
47. Cooling Water Pump Tank
48. East Train Phosphoric Acid Reactor
49: West Train Phosphoric Acid Reactor
51: Third Train Phosphoric Acid Reactor
52: East 40% Clarifier
53: West 40% Clarifier
54: 3rd 40% Clarifier
57: 40% Surge
58: Centrifuge Sludge Tank
60: 40% Clarifier Underflow/MAP
61: Area 10 East 30% Acid (30% clarifier feed)
62: Area 10 West 30% Acid (30% clarifier feed)
64: Green Acid (30% P2O5)
66: Scrub Tank
69: 3rd 30% Evap Feed
71: Centrifuge Product Tank

Figure 12: Proposed Projects Layout

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

Figure 13: Proposed Configuration (post installation of proposed projects) at Phosphoric Acid Plant and DAP1/GMAP GHT

*

[redacted]

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

Figure 14: Proposed Preliminary Locations for Granulation Holding Tanks

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

September 8, 2015

APPENDIX 4
FACILITY REPORT
RIVERVIEW COMPLEX
EXECUTIVE SUMMARY

These summary tables provide an overview of the Upstream, Downstream, Mixed-Use, Grandfathered, and Recovery Units at Mosaic Fertilizer LLC's (Mosaic) Riverview Facility. For Upstream Operations, the table only includes tanks that store phosphoric acid prior to the generation of the First Saleable Product. Piping associated with those tanks is considered part of Upstream Operations unless designated otherwise in the Facility Report. Nothing in these summary tables overrides subsequent details provided in diagrams and text.

Table 1: Unit Designations

Units in Upstream Operations			
Tank Name	Tank No. from Figure 13 and 15	Phosphoric Acid Service (%)	Alternate Name(s)/asset number
Phosphoric Acid Dorrco Reactor	01	30	***Dorrco Reactor/Digester***[1]**,** Dorrco Reactor
Phosphoric Acid Dorrco Digester	02	30	***Dorrco Reactor/Digester***, Digester or DOR2-A
Phosphoric Acid Reactor	03	30	***Prayon Reactor***
No. 1 Filter, Filtrate Tank	04	30	***Vacuum Filter #1***, #1 Filter, 212306
No. 2 Filter, Filtrate Tank	05	30	***Vacuum Filter #2,*** #2 Filter**,** 31T24
No. 3 Filter, Filtrate Tank	06	30	***Vacuum Filter #3,*** *#3 Filter***,** 41T001
Gypsum Slurry Tank	04	Gypsum slurry	Gyp Tank or 21T09
Gypsum Slurry Tank	05	Gypsum slurry	Gyp Tank or 31T09
Gypsum Slurry Tank	06	Gypsum slurry	Gyp Tank or 41T002
30% CFT	07	30	***28% Clarifier Feed Tank***; 30 CFT or 55T001
30% Clarifier	08	30	***28% Acid Clarifier*** or
No. 1 EFT	10	30	***#1, #2, #3 Evaporator Feed Tanks,*** #1 EFT; 26T01
43 CFT	11	43	***43% Clarifier Feed Tank*** or 26T02
No. 3 EFT	12	30	***#1, #2, #3 Evaporator Feed Tanks***, or 26T03
1-4 Evaporators	13	30-43	***First Stage Evaporators (1/2/3/4*** or 1EVAP01, 2EVAP01, 3EVAP01 or 4EVAP01)

[1] Names that are used in the Process Flow Diagram (Figure 4) are shown in ***bold italic*** font

9-11 Evaporators	14	30-43	***First Stage Evaporators (/9/10/11)*** or 9EVAP01, 10EVAP01 and 11EVAP01
43% Clarifier	16	43	43 Clarifier, 29T01
No. 4 EFT	17	43	***#4 Evaporator Feed Tank***; 26T04 or Second stage feed tank
5-8 Evaporators	18	43-54	***Second Stage Evaporators (4/5/6/7/8) or*** 4EVAP01, 5EVAP01, 6EVAP01 or 7EVAP01 and 8EVAP01
Gypsum Slurry Surge Tank	25	N/A	Gyp tank on the hill or 50T010 or 51T010
East SACS Wash Tank	15	40 or 54	***East 5% Tank***
West SACS Wash Tank	30	40 or 54	***West 5% Tank***
No. 3 Scrubber	26	N/A	***#3 Filter Scrubber;*** APCD or 40E003
Dorrco Scrubber	27	N/A	Phosphoric Acid Dorrco Vescor Scrubber; ***Dorrco Vescor Scrubber***, APCD or 30SCBR01
Digester Scrubber	28	N/A	APCD or 30SCBR02
Prayon Scrubber	29	N/A	***Prayon Teller Scrubber;*** APCD, Phosphoric Acid Teller Scrubber or 20SCBR01

Mixed Use Units			
Tank Name	Tank No. from Figures 13 and 15	Phosphoric Acid Service (%)	Alternate Name(s)/asset number
300K Tank	09	30	***Clarified 30% Acid Storage;*** 30% Acid Storage Tank or 24T19
54 CFT	19	54	***54% Clarifier Feed Tank*** or 24T17
54% Clarifier	20	54	54 Clarifier or 55CL002

Big Holding Tank Recovery Units (Tanks)				
Tank Name (as appears in referenced figure)	Figure No.	Tank No. in Figures	Phosphoric Acid Service (%)	Alternate Name(s)/asset number
FSA Scrubber Liquor Tank	Figure 13; Figure 15	21	FSA	***Scrubber Liquor Tank*** or 25T12
FSA "A" Tank	Figure 13; Figure 15	22	FSA	***FSA Product Tanks*** or 25T07
FSA "B" Tank	Figure 13; Figure 15	23	FSA	***FSA Product Tanks*** or 25T08
FSA "C" Tank	Figure 13; Figure 15	24	FSA	***FSA Product Tanks*** or 25T09

North SACS Wash Tank	Figure 13	31	Cleaning solution	***North 5% tank***
East Dock Tank	Figure 7, Figure 8	labeled	54	East PFS tank or 25T11
West Dock Tank	Figure 7, Figure 8	labeled	54	West PFS tank or 25T10
No.5 DAP 54% Acid Tank	Figure 8	labeled	54	54% Day Tank or 33T01
60K Tank	Figure 7	labeled	54	#6 DAP/MAP 54% Acid Tank or 30T04
Pond Water Neutralization Tank	Figure 9	labeled	Neutralized Process Wastewater	
Big Holding Tank (BHT)	Figure 15	36A	Cleaning solution	BHT
BHT backup Tank	Figure 15	36B	Cleaning solution	BHT

Big Holding Tank Recovery Units (Transfer Lines)					
Line Name	Phosphoric Acid Service (%)	From	To	Figure No.	
East 54 Clarifier Feed Line	Unclarified 54	54 CFT	Truck Loading	Table 2/Figure 5	
FSA Shipping	FSA	FSA A Tank FSA B Tank FSA C Tank	A & B to railcars and trucks, C to trucks only	Table 3/Figure 6	
"A-30" Line	30	300K Tank	#5 DAP	Table 6/Figure 8	
"B-30" Line	30	300K Tank	#5 DAP or #6 DAP/MAP	Table 5/Figure 7; Table 6/Figure 8	
"C-30" Line	30	300K Tank	#6 DAP/MAP	Table 5/Figure 7	
"Unders" Line to MAP (North/South Lines)	54	54 Clarifier	54% Acid Tank at #6 DAP/MAP	Table 5/Figure 7	
East 54% Overs Line (also called South Shipping Line in FSA shipping area)	54	54 Clarifier	East Dock Tank or West Dock Tank	Table 4/Figure 7 and Figure 8	
East transfer line	54	East Dock Tank	#5 DAP or #6 DAP/MAP Tank	Table 5/Figure 7, Table 6/Figure8	
West 54% Overs Line (North Shipping Line in FSA shipping area)	54	54 Clarifier	West Dock Tank or East Dock Tank	Table 4/Figure 7 and Figure 8	#5 DAP or #6DAP/MAP Tank

West Transfer Line at the West Dock Tank	54	West Dock Tank	#5 DAP or #6 DAP/MAP Tank	Table 5/Figure7, Table 6/Figure 8
Pond Water Neutralization Line	Neutralized process wastewater	Pond Water Neutralization Tank	Rock Grinding	Table 7/Figure 9

Grandfathered Units				
Tank Name	Tank No. from Figure 13 & Figure 15	Phosphoric Acid Service (%)	Alternate Name(s)	
FSA Swift Towers	Orange circles co-located with Tanks1 3, 14 and 18	FSA	FSA recovery on ***First Stage Evaporators (1/2/3/4[2]/9/10/11)*** and ***Second Stage Evaporators (4/5/6/7/8)***or 1SCBR01, 2SCBR01, 3SCBR01, 4SCBR01, 5SCBR01, 6SCBR01, 7SCBR01, 8SCBR01, 9SCBR01, 10SCBR01	***1st Stage Evap FSA Seal Tanks***
FSA Seal Tanks	Orange circles co-located with Tanks 13, 14 and 18	FSA	FSA recovery on ***First Stage Evaporators (1/2/3/4/9/10) and Second Stage Evaporators(4/5/6/7/8)*** or 1T001, 2T001, 3T001, 4T001, 9T001, 10T001, 5T001, 6T001, 7T001 and 8T001	***1st Stage Evap FSA Seal Tanks***

Granular Holding Tank Recovery Units			
Tank Name	Tank No.	Service	Alternate

[2] Evaporator 4 is a swing evaporator that can be used for either 1st or 2nd stage evaporation.

	from Figure 12		Name(s)
Granular Holding Tank	To be determined (TBD)	Cleaning solution	GHT
GHT Recovery Units described in section V.B. below		Ammoniated slurry / granulated product	

APPENDIX 4
FACILITY REPORT
MOSAIC FERTILIZER, LLC
RIVERVIEW COMPLEX
EPA ID NO. FLD 064 696 107

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I. Introduction

All capitalized terms not otherwise defined in this Facility Report shall have the meaning set forth in the Consent Decree.

A. Purpose

The purposes of this Facility Report are to:

1. Identify Mosaic Fertilizer, LLC's (Mosaic) Upstream Operations (Upstream), and Downstream Operations (Downstream) at its Riverview Facility (Mosaic Riverview), its Mixed-Use air pollution control devices (APCDs), and Mixed-Use tanks, pipes, and other ancillary equipment involved in the production of phosphoric acid.
2. Identify certain units associated with Downstream Operations from which the cleaning wastes may be managed with wastes from Upstream Operations due to the particular configuration of the Facility (Grandfathered Units).
3. Identify compliance projects set forth in Section VI. Compliance Projects of this Report, including the Big Holding Tank (BHT) and the Granular Holding Tank (GHT).
4. Identify certain Downstream Units associated with Mosaic's BHT project (BHT Recovery Units). Waste streams from these units will be recovered into Upstream Operations as designated in this Report or to the BHT in accordance with Section VI. Compliance Projects of this Report.
5. Identify certain Downstream Units associated with Mosaic's GHT project (GHT Recovery Units). Waste streams from these units will be recovered in the Granulation process as designated in this Report or to the GHT in accordance with Section VI. Compliance Projects of this Report.
6. Address phosphoric acid product spills and leaks in accordance with Section VII. Containment of Phosphoric Acid Product Spills and Leaks of this Report.
7. Identify categories of future equipment installations, some wastes from which may be co-managed with Bevill Exempt wastes when meeting the conditions set forth in Sections VIII. Proposed Phosphoric Acid Production-Related Operations, IX. Non-Phosphoric Acid Production Proposed Projects and X. Authorized Future Installations of this Report.

Hazardous wastes generated from the production of sulfuric acid, wastes related to the transport of sulfuric acid to the phosphoric acid plant, and wastes generated from the cleaning of sulfuric acid transportation-related equipment are not within the scope of this Report.

B. Overview[3]:

A major purpose of the Facility Report is to specify how Mosaic shall handle wastes from designated units at the Riverview Facility. For the units designated as part of Upstream or Downstream Operations or identified as Mixed-Use, Grandfathered, Big Holding Tank (BHT) Recovery or Granular Holding Tank (GHT) Recovery Units, wastes shall be handled as described below. The potential influents to the designated units are: BHT Effluent, Fluorosilicic Acid (FSA), Fluorosilicic

[3] This Overview Section summary is provided solely for informative purposes and does not replace, modify, or supersede the provisions specified in the Consent Decree or the substantive terms in the succeeding sections of this Facility Report.

Acid Cleaning Solution (FSACS), GHT Effluent, Non-Hazardous Aqueous Cleaning Solution (NHACS), Phosphogypsum Stack System Wastewater, Phosphoric Acid Cleaning Solution (PACS), Process Wastewater, Sulfuric Acid Cleaning Solution (SACS) and spills and leaks of phosphoric acid, sulfuric acid, and FSA in Containable Impervious Areas.

A. Wastes generated from Upstream/Mixed-Use/Grandfathered Operations.

1. Cleaning Solutions Wastes.
   a. If NHACS, Phosphogypsum Stack System Wastewater, and/or Process Wastewater have been used to clean these units, the wastes from these units may be input to Upstream Operations or discharged to the Phosphogypsum Stack System.

   b. Prior to commencement of the BHT, if FSACS, SACS, or PACS are used to clean these units, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following commencement of operations of the BHT, if FSACS, SACS, PACS or BHT Effluent are used to clean these units, the wastes from these units may be input to the BHT for use in Upstream Operations in accordance with Section VI. Compliance Projects of this Report, except in the case of a BHT process upset (see below).

   c. Following commencement of operations of the BHT, if Mosaic does not utilize the BHT to recover cleaning wastes identified in (b) above, or if any cleaning solutions other than those listed in (a) & (b) above are used to clean these units, Mosaic shall make a RCRA hazardous waste determination and manage the wastes in accordance with RCRA.

2. Scrubber Wastes. Wastes from normal operations (i.e., scrubber effluent) may be input to Upstream Operations or discharged to the Phosphogypsum Stack System. Scrubber cleaning wastes must be managed as described in A.1. above.

3. Spills and Leaks. These are handled in accordance with the BMP and Section VII. Containment of Phosphoric Acid Product Spills and Leaks. Spills and leaks of phosphoric acid, sulfuric acid, FSA, SACS, PACS, FSACS or BHT Effluent in Containable Impervious Areas may be returned to a tank with similar material or input to the BHT for use in Upstream Operations in accordance with Section VI. Compliance Projects of this Report. Spills and leaks of Process Wastewater, Phosphogypsum Stack System Wastewater or NHACS in Containable Impervious Areas may also be returned to the BHT, when these spills and leaks are mixed with phosphoric acid, sulfuric acid, FSA, SACS, PACS, FSACS or BHT Effluent.

B. Wastes generated from BHT and BHT Recovery Units.

1. BHT Recovery Units. Prior to commencement of the BHT, if SACS, PACS, FSACS, NHACS, Process Wastewater, or Phosphogypsum Stack System Wastewater are used to clean BHT Recovery Units, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following commencement of operations of the

BHT, if SACS, PACS, FSACS, NHACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or BHT Effluent are used to clean BHT Recovery Units, the wastes from these units may be input to the BHT for use in Upstream Operations in accordance with Section VI. Compliance Projects of this Report or managed in accordance with Section 3. Phosphoric Acid Plant Cleaning Procedures (Phosphoric Acid Tank and Equipment Cleaning – BHT Recovery Units) and Section 3. Granulation Plants Cleaning Procedures of the Best Management Practices Plan (BMP).

2. BHT. Influents to the BHT are limited to the following: (i) wastes generated from the use of SACS, PACS, FSA, FSACS, NHACS, Phosphogypsum Stack System Wastewater, Process Wastewater, and BHT Effluent; (ii) spills and leaks of phosphoric acid, sulfuric acid, and FSA in Containable Impervious Areas; (iii) sulfuric acid for SACS make-up; (iv) spills and leaks per A.3 above; and (v) GHT Effluent. BHT operation is described in Section VI.A. 2. Project Operations of this Report. BHT Effluent may be input to Upstream Operations or used for cleaning of the BHT Recovery Units and returned to the BHT. The BHT itself is designated a BHT Recovery Unit, and therefore for wastes generated from cleaning the BHT itself, see B.1 above.

3. Process Upset. In the event of a process upset that prevents the recovery of cleaning solutions via the BHT, then Mosaic (1) shall not discharge to the Phosphogypsum Stack System any SACS, PACS, BHT Effluent, FSA, or FSACS used in cleaning those units affected by the process upset; and (2) shall make a RCRA hazardous waste determination of any cleaning wastes generated from BHT Recovery Units and manage such wastes in accordance with RCRA.

C. <u>Wastes generated from Granular Holding Tank (GHT) and GHT Recovery Units</u>.

1. GHT Recovery Units. Prior to commencement of the GHT, if SACS, PACS, NHACS, Process Wastewater, or Phosphogypsum Stack System Wastewater are used to clean GHT Recovery Units, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following commencement of operations of the GHT, if SACS, PACS, NHACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or GHT Effluent are used to clean GHT Recovery Units, the wastes from these units may be input to the GHT for use in Downstream Operations in accordance with Section VI. Compliance Projects of this Report or managed in accordance with Section 3. Granulation Plants Cleaning Procedures of the BMP.
2. Influents to the GHT are limited to the following: (i) Phosphogypsum Stack System Wastewater, Process Wastewater, Non-Hazardous Aqueous Solution, wastes generated from SACS, PACS, and GHT Effluent; (ii) spills and leaks of phosphoric acid, sulfuric acid, SACS, PACS, or GHT Effluent in Containable Impervious Areas; and (iii) spills and leaks of Process Wastewater, Phosphogypsum Stack System Wastewater or NHACS, when these spills and leaks are mixed with phosphoric acid, sulfuric acid, SACS, PACS, or GHT Effluent. GHT operation is described in Section VI. Compliance Projects, B. 2. Project Operations of this Report. If GHT Effluent is not reused or transferred to the BHT in accordance with Section VI.

Compliance Projects, Mosaic shall manage GHT Effluent as described in Section 6. Wash Solution System Operation of the BMP. The GHT itself is designated a GHT Recovery Unit, and therefore for wastes generated from cleaning the GHT itself, see C.1 above

3. Process Upset. In the event of a process upset that prevents the recovery of cleaning solutions via the GHT, then Mosaic shall make a hazardous waste determination of cleaning wastes generated from those units affected by the process upset and manage them in accordance with RCRA.

D. Wastes generated from Downstream Operations only.

Prior to commencement of the GHT or BHT, the wastes from these units may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following the commencement of the operation of the GHT and BHT, if the Downstream wastes are not sent to the GHT or BHT for recovery and reuse, Mosaic shall make a hazardous waste determination of such wastes and manage them in accordance with RCRA. Following the commencement of the operation of the GHT and BHT, downstream scrubber effluent shall not be discharged to the Phosphogypsum Stack System.

II. Background[4]

Mosaic Riverview's primary commercial products include solid ammoniated phosphate fertilizers: monoammonium phosphate (MAP) and diammonium phosphate (DAP), MicroEssentials® (MES) as well as fluorosilicic acid (FSA). DAP is manufactured in two production trains designated as #5 DAP and #6 DAP/MAP. MAP is also produced in #5 DAP or # 6 DAP/MAP. Ammonia and phosphoric acid are the primary reactants for MAP, DAP and MicroEssentials® and are consumed in the production of ammoniated fertilizers on-site.

Phosphoric acid is produced by the digestion of phosphate rock with sulfuric acid. Mosaic manufactures phosphoric acid in one production plant, with two distinct reactors on-site. The reaction yields phosphoric acid and phosphogypsum (gypsum). Gypsum is filtered from the phosphoric acid on rotating pan filters, slurried with Process Wastewater in Gypsum Slurry Tanks, and the resultant slurry is pumped to a lined Phosphogypsum Stack. Because the production of phosphoric acid is a water-intensive process and water is used throughout the process (e.g., as acid dilution, in the ball mills, evaporators, condensers, and as a pipe and tank cleaning agent), approximately 500 million to 1.5 billion gallons of Process Wastewater are constantly stored in and circulating throughout the facility's Phosphogypsum Stack System.

Mosaic Riverview deposits slurried gypsum in a clay-lined Phosphogypsum Stack (gypstack). An expansion to the gypstack is complete and is lined with 60-mil high density polyethylene (HDPE). The gypstack and the expansion are located northeast of the facility, east of US Hwy 41. The

[4] This Background Section is provided solely for informative purposes and is not a definitive or exhaustive description of the Facility or its operations.

combined lined gypstack operates in conjunction with the 80-mil HDPE lined Phosphogypsum Stack system.

Mosaic's Riverview Phosphogypsum Stack system is lined with 80-mil HDPE. The pond system consists of a transfer pond located directly east of the production complex, and the pond's connecting ditches. Mosaic Riverview operates the Phosphogypsum Stack System under an Industrial Wastewater Facility Permit issued by the Florida Department of Environmental Protection (FDEP).

III. First Saleable Products at Mosaic

The line marking the division between Upstream and Downstream Operations lies at the point of generation of the First Saleable Product. Mosaic Riverview generates two phosphoric acid First Saleable Products used as direct feedstocks to MAP or DAP production:

- 30% phosphoric acid that is routed to MAP or DAP production rather than to further concentration steps;
- 54% clarified phosphoric acid (greater than 1% solids) that is also routed to either MAP or DAP production.

Riverview also produces fluorosilicic acid (FSA) as a First Saleable Product. Downstream operations at Mosaic Riverview are associated with the storage, transport or use of FSA and of the phosphoric acid First Salable Products in MAP, DAP, and MES operations.

IV. Phosphoric Acid and FSA Production - Phosphoric Acid Plant

Figure 13 identifies Upstream Operations, BHT Recovery Units, Mixed-Use Units, and Grandfathered Units within Mosaic Riverview's Phosphoric Acid Plant.

Mosaic Riverview's Phosphoric Acid Plant has approximately 90% impervious surfaces and approximately 50% of the Plant has 40-mil HDPE liner installed below the concrete acid pads within contained areas. Below-grade concrete or acid-brick lined trenches and underground polyethylene piping throughout the Plant convey Process Wastewater from the Plant to the Phosphogypsum Stack system at a flow rate of approximately 60,000 GPM. The main Process Wastewater return ditches within the plant are composed of high performance concrete. The entire phosphoric acid plant is encompassed by a bentonite slurry wall that vertically intersects the limestone/bedrock layer.

A. Standard Acid Flow Configuration

The Phosphoric Acid Plant produces three concentrations of phosphoric acid for use in fertilizer manufacturing: 30% P_2O_5[5], 43% P_2O_5, and 54% P_2O_5[6]. The 30% acid that is not used directly as feedstock to fertilizer manufacturing is further processed to 54% P_2O_5 in Upstream Operations. The

---

[5] All concentrations of P_2O_5 are approximate and fluctuate slightly.

[6] Note that although the terms P_2O_5 and phosphoric acid (H_3PO_4) are used interchangeably, the concentrations are not interchangeable. Mosaic manufactures phosphoric acid, however, in this document we refer to the concentration of the acid in terms of P_2O_5 concentration, rather than phosphoric acid concentration. P_2O_5 concentration can be converted to an approximate concentration of phosphoric acid by multiplying by 1.3808. Phosphoric acid is converted to an approximate concentration of P_2O_5 by multiplying by 0.7242.

standard phosphoric acid manufacturing process described below is illustrated in process flow diagram (Figure 4). Deviations from the standard acid flow configuration are necessary on periodic short-term intervals.

Mosaic Riverview produces phosphoric acid in two reactors designated as the Phosphoric Acid Reactor and the Dorrco Phosphoric Acid Reactor. The acid from both reactors mixes at the 30% Clarifier Feed Tank ("30 CFT" - 55T001). Prior to mixing at the 30 CFT (55T001), the acid flow is as follows:

Phosphoric Acid Reactor:

Post-reactor, unclarified 30% acid is pumped through the # 3 Filter to the #3 Filter #1 Filtrate Tank (41T001) and/or through the #1 Filter #1 Filtrate Tank (212306) then to the 30 CFT (55T001).

Phosphoric Acid Dorrco Reactor:

Post-reactor, unclarified 30% acid is pumped to the Phosphoric Acid Dorrco Digester ("Digester") for aging (additional gypsum crystallization/solids formation) and then through the #1 Filter to the #1 Filter #1 Filtrate Tank (212306) and/or through the #2 Filter to the # 2 Filter # 1 Filtrate tank (31T24) and then to the 30 CFT (55T001).

1) 30% Acid Processed to 30% Clarification (Upstream)
   - 30% acid from the 30 CFT (55T001) is pumped to the 30% Clarifier;
   - Underflow (solids) from the 30% Clarifier is pumped to either the Phosphoric Acid or Phosphoric Acid Dorrco Reactor for acid recovery;
   - Overflow (clarified acid) from the 30% Clarifier is pumped to any of the following:
     1. Clarified 30% Acid Storage ("300K" - 24T19) via "A overs" pump and transfer line;
     2. #1 Evaporator Feed Tank ("#1 EFT" - 26T01) via "B overs" and "D overs" pump and transfer line;
     3. #3 EFT (26T03) via "C overs" pump and transfer line;
     4. #3 EFT (26T03) via "D overs" pump and transfer line.
   - Evaporators are fed from the Evaporator Feed Tanks which are equalized: #1 and #3 EFTs are equalized and feed acid to the 1st stage Evaporators; #4 Evaporator Feed Tank ("EFT"- 26T04) feeds the 2nd stage Evaporators.

2) Clarified 30% Acid Processed to 43% Clarification (Upstream) or Feedstock to DAP/MAP (Downstream)
   - Clarified 30% acid is pumped from the 300K Tank (24T19) to any of the following:
     1. #1 EFT (26T01);
     2. #3 EFT (26T03) via the #3 transfer line (Upstream);
     3. #5 DAP Scrubber via the "A-30" or "B-30" Transfer Line (BHT Recovery Units);
     4. #6 DAP/MAP Scrubber via the "C-30" or "B-30" Transfer Line BHT Recovery Units).
   - 30% acid from the #1 EFT and #3 EFT is pumped to the 1st Stage Evaporators #1, 2, 3, 9, 10, and 11, where it is concentrated to 43% acid (#4 Evaporator is a swing evaporator for either 30% acid concentration to 43% acid or for 43% acid concentration to 54% acid) (Upstream);
   - 43% acid from the 1st Stage Evaporators #1, 2, 3, 9, 10, and 11, or 4 is pumped to the 43% Clarifier Feed Tank ("43 CFT"- 26T02) and then to 43% Clarifier (29T01) (Upstream);

- Underflow (solids) from the 43% Clarifier (29T01) are pumped to the 30 CFT (55T001) and the combined solids are clarified further or are pumped to either the Phosphoric Acid or Phosphoric Acid Dorrco Reactor for acid recovery (Upstream);
- Overflow (clarified 43% acid) is pumped from the 43% Clarifier (29T01) to the #4 Evaporator Feed Tank ("#4 EFT" - 26T04) (Upstream).

3) 43% Acid Processed to 54% Acid (Upstream)
   - From the #4 EFT (26T04), 43% acid is pumped to the #4 Swing Evaporator or to the #5, 6, 7, and 8 Second Stage Evaporators for concentration to 54% acid (Upstream);
   - Concentrated 54% acid is pumped from the evaporators to the 54% Clarifier Feed Tank ("54 CFT"- 24T17) (Mixed-Use);
   - Unclarified 54% acid is transferred from the 54 CFT (24T17) to:
     1. Truck Loading via the East 54 Clarifier feed line for clarification at the New Wales or Bartow facilities (BHT Recovery Units); and/or
     2. the 54% Clarifier (55CL002) (Mixed-use);
   - Underflow (solids) from the 54% Clarifier (55CL002) is pumped to:
     1. #6 DAP/MAP 54% Acid Tank ("60K" - 30T04) for use in DAP or MAP production via the North or South 54% Unders Line (BHT Recovery Units); and/or
     2. the 30 CFT (55T001) where the combined solids from the clarifiers are pumped back to either the Phosphoric Acid or Phosphoric Acid Dorrco Reactor for acid recovery (Upstream);
   - Overflow (clarified 54% acid) from the 54% Clarifier (55CL002) is pumped to the East Dock Tank (25T11) or the West Dock Tank (25T10) via the East 54% Overs Line (which becomes the South Shipping Line in the FSA shipping area and the East Fill Line at the Dock Tanks); and to the East Dock Tank (25T11) or West Dock Tank (25T10) via the West 54% Overs Line (which becomes the North Shipping Line in the FSA shipping area and the West Fill Line at the West Dock Tank) (BHT Recovery Units);
   - 54% acid from the East and West Dock Tanks (25T11 and 25T10, respectively) is transferred via the East and/or West Transfer Pump to:
     1. #5 DAP 54% Acid Tank (33T01) (BHT Recovery); and/or
     2. #6 DAP/MAP 54% Acid Tank ("60K" - 30T04) (BHT Recovery).

4) 54% Acid Transfer between Mosaic Facilities

   Riverview also has capability of importing and exporting phosphoric acid. The acid is exported from the 54% Clarifier Feed Tank. Imported acid is transferred to the East and West Dock Tanks.

B. Alternative to Standard Acid Flow Configuration

Note: Mosaic Riverview has the capability to route around all evaporator feed tanks, clarifier feed tanks, clarifiers, and storage tanks within the phosphoric acid process on a temporary basis, except for the following Upstream Units:

- Phosphoric Acid and Phosphoric Acid Dorrco Reactors;
- Filters;
- Gypsum Slurry Tanks;
- First Stage Evaporators # 1, 2, 3, 9, 10, 11, or 4 (Swing Evaporator);
- Second Stage Evaporators # 5, 6, 7, 8, or 4 (Swing Evaporator).

C. Phosphoric Acid Transfer to Downstream Operations

1) Acid Transfer between the Phosphoric Acid Plant and the Dock Tanks (BHT Recovery Units)

Mosaic Riverview has two primary transfer lines that serve to transport 54% phosphoric acid from the Phosphoric Acid Plant to the Dock Tanks. The East 54 Overs Line and the West 54 Overs transfer lines transfer 54% clarified phosphoric acid from 54% Clarifier to East Dock Tank (25T11) or West Dock Tank (25T10).

All transfer lines described above are cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The locations of the transfer lines are illustrated in Figure 7 and Figure 8. The estimated line lengths and cleaning frequencies are listed in Table 4.

2) Acid Transfer between the Phosphoric Acid Plant and the #6 DAP/MAP (BHT Recovery Units)

Mosaic Riverview has two primary transfer lines that serve to transport 30% phosphoric acid from the Phosphoric Acid Plant to #6 DAP/MAP. The “B-30” or the “C-30” transfer lines transport 30% acid from the 300K Tank (24T19) to the #6 DAP/MAP primary acid scrubbers.

Mosaic Riverview has three primary transfer lines that serve to transport 54% phosphoric acid between the Phosphoric Acid Plant and #6 DAP/MAP. The “A Unders” line transports unclarified 54% acid from the 54 Clarifier (55CL002) to the #6 DAP/MAP 54% Acid Tank (“60K” - 30T04). The “East Fill Line/East Transfer Line” and “West Fill Line/West Transfer Line” transport clarified 54% acid from the East and West Dock Tanks (25T11 and 25T10, respectively) to #6 DAP/MAP Day Tank.

All transfer lines described above are cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The locations of the transfer lines are illustrated in Figure 7. The estimated line lengths and cleaning frequencies are listed in Table 5.

3) Acid Transfer between the Phosphoric Acid Plant to #5 DAP (BHT Recovery Units)

Mosaic Riverview has two primary transfer lines that serve to transport 30% phosphoric acid between the Phosphoric Acid Plant and #5 DAP. The “A-30” and “B-30” transfer lines transport 30% acid from the 300K Tank (24T19) to the #5 DAP Acid Scrubber.

Mosaic Riverview has two primary transfer lines that serve to transport 54% phosphoric acid between the Phosphoric Acid Plant and #5 DAP. The “East Fill Line/East Transfer Line” and “West Fill Line/West Transfer Line” transport clarified 54% acid from the East and West Dock Tanks (25T11 and 25T10, respectively) to #5 DAP 54% Acid Tank (33T01).

All transfer lines described above are cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The locations of the transfer lines are illustrated in Figure 8. The line lengths and cleaning frequencies are listed in

Table 6.

4) Acid Transfer between the Phosphoric Acid Plant and Truck Loading (BHT Recovery Units)

Riverview has one transfer line, the East 54 Clarifier feed, which serves to transport unclarified 54% phosphoric acid from the Phosphoric Acid Plant to Truck Loading. The line is cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The location of the transfer line is illustrated in Figure 5. The estimated line lengths and cleaning frequencies are listed in Table 2.

D. Fluorosilicic Acid (FSA) Standard Process Configuration

Mosaic Riverview recovers fluoride vapors from several evaporators. The recovery of fluoride vapors produces FSA. A generic depiction of the FSA production process is illustrated in Diagram 1.

FSA is produced as part of the first and second stage evaporation of phosphoric acid. Evaporators #1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 each have a FSA recovery unit, also called a "Swift Tower," integrated with a barometric condenser. The Swift Tower receives gas emitted from the concentration of 28% P2O5 to 43% P2O5 (for first stage evaporators – #1, 2, 3, 4, 9 and 10) and 43% P_2O_5 to 54% P_2O_5 (for second stage evaporators - #4, 5, 6, 7, 8) through evaporation. The gas is condensed in the Swift Tower and the liquid is continuously recirculated through a seal tank and back through the Swift Tower to maintain the seal and operation of the FSA Swift Tower.

FSA is not always produced. When FSA is not being produced for sale or use as a cleaning solution, the gases pass through the Swift Tower to the barometric condenser, there is no recirculation of FSA through the Swift Tower, and therefore FSA is not produced. Even when FSA is not being produced, the FSA Seal Tank remains an essential part of the Phosphoric Acid Evaporator by sealing the Swift Tower downleg.

When FSA is being produced for sale, recirculated liquid will continue to absorb fluoride vapors until the desired strength of FSA is obtained. FSA for sale is a solution of approximately 23-26% strength and specific gravity of 1.20-1.23.

Once the FSA reaches the desired strength for sale, a slip stream from the recirculation line between the FSA Seal Tank and FSA Swift Tower is sent to the FSA Scrubber Liquor Tank (25T12). In the FSA Scrubber Liquor Tank (25T12) the solution is isolated and tested for meeting customer specifications. Solutions meeting customer specifications in the Scrubber Liquor tank are transferred to the FSA Storage Tanks: FSA "A" Tank (25T07), FSA "B" Tank (25T08**)**, and FSA "C" Tank (25T09) and sold to customers off-site.

Prior to commencement of operations of the BHT, if the solution does not meet the minimum customer specifications, within 90 days of that determination, the contents from the FSA Scrubber Liquor Tank (25T12) must be:

1. Returned to the #1 Evaporator Feed Tank (26T01), #3 Evaporator Feed Tank (26T03) or #4 Evaporator Feed Tank (26T04) for reprocessing and recovery of acid value when FSA is being recovered for sale; or
2. Sent to the Phosphoric Acid Reactors for reprocessing and recovery; or

3. Sent to the 43 CFT (26T02) for reprocessing and recovery of acid values when FSA is being recovered for sale and/or internal consumption; or
4. Discharged to the Phosphogypsum Stack System.

Following commencement of operations of the BHT, if the solution does not meet the minimum customer specifications, within 90 days of that determination, the contents from the FSA Scrubber Liquor Tank must be:

1. Returned to the #1 Evaporator Feed Tank (26T01), #3 Evaporator Feed Tank (26T03) or #4 Evaporator Feed Tank (26T04) for reprocessing and recovery of acid value when FSA is being recovered for sale; or
2. Sent to the Phosphoric Acid Reactors for reprocessing and recovery; or
3. Sent to the 43 CFT (26T02) for reprocessing and recovery of acid values when FSA is being recovered for sale and/or internal consumption; or
4. Sent to the Big Holding Tank as described in section VI. Compliance Projects, for reprocessing and recovery of acid values; or
5. Used as FSA Cleaning Solution (FSACS) and then sent to the Big Holding Tank, as described in Section VI. Compliance Projects of this Report for reprocessing and recovery of acid values; or
6. Discharged to the Phosphogypsum Stack System, if in compliance with the land disposal restriction (LDR) standards set forth in 40 C.F.R. Part 268, Subpart D.

Because the sampling cannot take place instantaneously, it may be also necessary at times to transfer FSA from the FSA Scrubber Liquor Tank to the FSA "A" Tank (25T07), FSA "B" Tank (25T08**)**, or FSA "C" Tank (25T09) before sampling results are obtained or a customer for this FSA is found.

Prior to commencement of operations of the BHT, if the solution does not meet the minimum customer specifications, within 90 days of that determination, the contents from the FSA "A" Tank (25T07), FSA "B" Tank (25T08**)**, or FSA "C" Tank (25T09) must be:

1. Returned to the #1 Evaporator Feed Tank (26T01), #3 Evaporator Feed Tank (26T03) or #4 Evaporator Feed Tank (26T04) for reprocessing and recovery of acid value when FSA is being recovered for sale and/or internal consumption; or
2. Sent to the Phosphoric Acid Reactors for reprocessing and recovery; or
3. Sent to the 43 CFT (26T02) for reprocessing and recovery of acid values when FSA is being recovered for sale or internal consumption; or
4. Discharged to the Phosphogypsum Stack System.

Following commencement of operations of the BHT, if the solution does not meet the minimum customer specifications, within 90 days of that determination, the contents from the FSA "A" Tank (25T07), FSA "B" Tank (25T08**)**, or FSA "C" Storage Tanks must be:

1. Returned to the #1 Evaporator Feed Tank (26T01), #3 Evaporator Feed Tank (26T03) or #4 Evaporator Feed Tank (26T04) for reprocessing and recovery of acid value when FSA is being recovered for sale or internal consumption; or
2. Sent to the Phosphoric Acid Reactors for reprocessing and recovery; or
3. Sent to the 43 CFT (26T02) for reprocessing and recovery of acid values when FSA is being recovered for sale and/or internal consumption; or

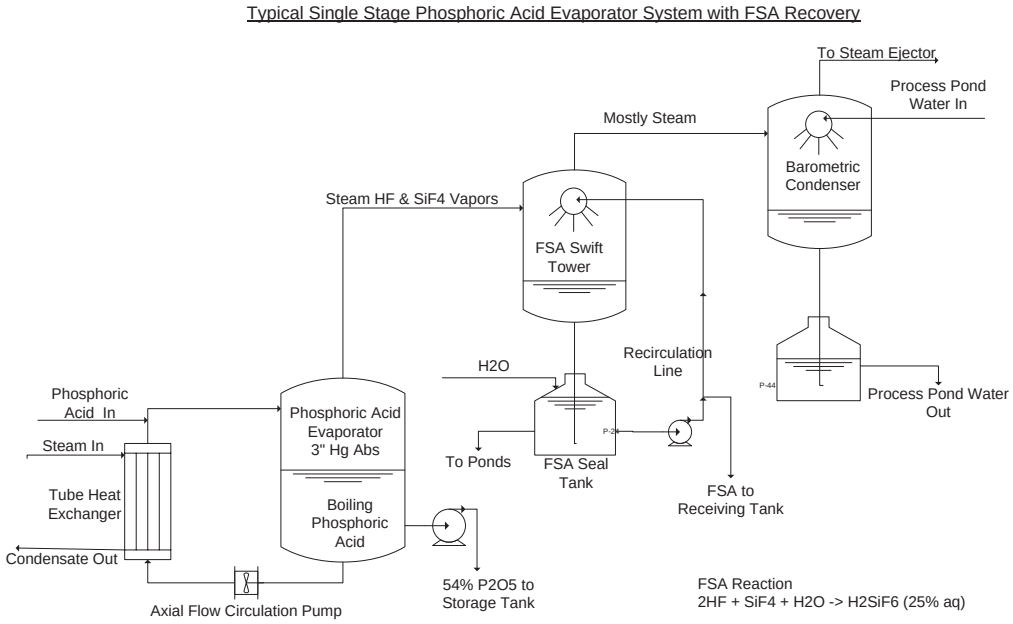
4. Sent to the Big Holding Tank as described in Section VI. Compliance Projects of this Report; or
5. Used as FSACS and then sent to the Big Holding Tank, as described in Section VI. Compliance Projects of this Report for reprocessing and recovery of acid values; or
6. Discharged to the Phosphogypsum Stack System, if in compliance with the land disposal restriction (LDR) standards set forth in 40 C.F.R. Part 268, Subpart D.

Prior to commencement of operations of the BHT, FSA meeting customer specifications in the FSA Storage Tanks: FSA "A" Tank (25T07), FSA "B" Tank (25T08**)**, and FSA "C" Tank (25T09), will not be mixed with FSA that has not yet been tested to determine if it meets customer specifications.

Prior to commencement of operations of the BHT, FSA produced for use as a cleaning solution may continue to be managed consistent with Mosaic's consolidated waste management practices submittal dated September 8, 2015. Following commencement of operations of the BHT, FSA produced for use as a cleaning solution may be used and then must be sent to the Big Holding Tank, as described in Section VI Compliance Projects of this Report, for reprocessing and recovery of acid values.

Mosaic Riverview has one primary transfer line, FSA Shipping Line that serves to transport FSA between the FSA Storage Tanks and the Rail and Truck Loadout Area. The location of the transfer line is illustrated in Figure 6. The line designation and cleaning frequency is listed in Table 3.

Diagram 1: General block flow diagram of fluorosilicic acid production.



E. Ammoniated Process Wastewater Transfer (BHT Recovery Units)

Riverview uses ammonia to pH adjust Process Wastewater before it is sent to the rock grinding circuit. The neutralization process occurs in the Pond Water Neutralization Tank located within the footprint of the #6 DAP/MAP (Figure 9). The pH-adjusted Process Wastewater is then sent to the

rock grinding area for the processing of phosphate rock and recovery of P_2O_5 content in the Process Wastewater.

V. Configuration Equipment Designations

A. Phosphoric Acid Plant and FSA

Figure 13 depicts Upstream, Mixed-Use BHT Recovery and Grandfathered Units within Mosaic Riverview's Phosphoric Acid Plant.

1. Upstream Operations

The following processes, tanks and associated equipment used in the production, concentration, transport, and storage of 30% and 43% phosphoric acid, and the concentration of 43% phosphoric acid to 54% phosphoric acid, serve only Upstream Operations.

- Both the Phosphoric Acid and Phosphoric Acid Dorrco Reactor and Digestor through filtration, recovery, and storage of 30% acid when the acid is not diverted to #5 DAP or #6 DAP/MAP: #1, 2, and 3 Filtrate Tanks, #1, #2, and #3 Filters, #1, 2, and 3 Gypsum Slurry Tanks, and Gypsum Slurry Surge Tank;
- Clarification and storage of the 30% acid:
  - 30 CFT (55T001);
  - 30 Clarifier #1 EFT (26T01);
  - #3 EFT (26T03).
- Concentration of 30% acid to 43% acid:
  - #1, 2, 3, 9, 10, 11, and 4 Evaporators;
  - 43 CFT (26T02).
- Clarification and storage of 43% acid:
  - 43 Clarifier (29T01);
  - # 4 EFT (26T04).
- Concentration of 43% acid to 54% acid:
  - #4, 5, 6, 7, and 8 Evaporators.
- Clarification and storage of 54% acid:
  - None.

<u>APCDs</u>

Scrubbers within the Phosphoric Acid Plant use once-thru Process Wastewater to scrub fumes from specific units within the phosphoric acid process. There are no APCDs that serve both Upstream and Mixed-Use Operations or Upstream and phosphoric acid Downstream processes. Therefore, all APCDs within the Phosphoric Acid Plant are Upstream Units.

These units are:

a. Phosphoric Acid Teller Scrubber that evacuates fumes from:
   - Phosphoric Acid Reactor
   - #1 Vacuum Filter table fume hood (optional)
   - #1 Filtrate tank

b. #3 Filter Scrubber that evacuates fumes from:
- 1st Stage Evaporators (9-10) FSA Seal Tanks
- 2nd Stage Evaporators (5-8) FSA Seal Tanks
- #3 Vacuum Filter table fume hood
- 54% Clarifier Feed Tank
- #3 filtrate tank
- #3 Gyp tank

c. Phosphoric Acid Dorrco Vescor Scrubber that evacuates fumes from:
- #2 Vacuum Filter table fume hood
- #1Vacuum Filter table fume hood
- #2 Filtrate tank
- #2 Gyp Tank

d. Digester Scrubber that evacuates fumes from:
- Phosphoric Acid Dorrco Reactor
- Digester

e. Phosphoric Acid Dorrco Flash Cooler Condensers
f. Phosphoric Acid Flash Cooler Condensers

2. Mixed-Use Units

The following tanks with associated equipment in the Phosphoric Acid Plant are Mixed-Use.

Phosphoric Acid Tanks

The following tanks identified as Mixed-Use Units in the Phosphoric Acid Plant serve Upstream Operations but may also serve as storage for feedstocks to Downstream Operations:

- Clarified 30% Acid Storage (300K-24T19);
- 54 CFT (24T17);
- 54 Clarifier (55CL002);

APCDs

None

3. BHT Recovery Units

The following tanks and acid transfer lines are identified as BHT Recovery Units located within the Phosphoric Acid Plant and serve as storage or transport for feedstocks to Downstream Operations. Section B. Granulation Plants addresses the BHT Recovery Units located within the Granulation Plants.

BHT Recovery Units are part of Downstream Operations. Wastes from BHT Recovery Units are recovered into Upstream Operations as designated in this Facility Report or to the BHT as described in Section VI. Compliance Projects (Projects 1 and 2).

The BHTs that Mosaic will install in accordance with Section VI below are also BHT Recovery Units.

Transfer Lines:

- East 54 Clarifier feed line from 54 CFT (24T17) to Truck loading (Table 2/Figure 5);

- A, B, and C FSA Tanks to the East Loading Station via the Truck Loading Line or to the Rail Loading area via the Rail Loading Line (Table 3/Figure 6).
- All acid transfer lines within #5 DAP and #6 DAP/MAP.
- "A-30," "B-30," and "C-30" transfer lines that transfer 30% acid from the 300K Tank (24T19) to #5 DAP and #6 DAP/MAP (Table 5 and

- Table 6/Figure 7 and Figure 8)
- North/South lines ("Unders" line) to #6 DAP/MAP from the 54 Clarifier (55CL002) to #6 DAP/MAP 54% Acid Tank (Table 5/Figure 7)
- East Fill Line (East Transfer Line) transfers clarified 54% acid from the East Dock Tank to either #6 DAP/MAP 54% Acid Tank or #5 DAP 54% Acid Tank (Table 5 and Table 6/Figure 7 and Figure 8);
- West Fill Line (West Transfer Line) transfers clarified 54% acid from the West Dock Tank to either #6 DAP/MAP 54% Acid Tank or #5 DAP 54% Acid Tank (Table 5 and Table 6/Figure 7 and Figure 8)
- East 54% Overs Line (which becomes the South Shipping Line in the FSA shipping area and the East Fill Line/East Transfer Line at the East Dock Tank) that transfers 54% Acid from 54 Clarifier to East Dock Tank (25T11) or West Dock Tank (25T10) (Table 4/Figure 7 and Figure 8)
- West 54% Overs Line (which becomes the North Shipping Line in the FSA shipping area and the West Fill Line at the West Dock Tank) that transfers 54% acid from 54 Clarifier to East Dock Tank (25T11) or West Dock Tank (25T10) (Table 4/Figure 7 and Figure 8)
- Phosphoric acid unloading line from Truck Unloading Station to the East Dock Tank (25T11) or West Dock Tank (25T10) (Table 8/Figure 17).

FSA Tanks and Transfer Lines

- FSA A Tank (25T07);
- FSA B Tank (25T08);
- FSA C Tank (25T09);
- FSA Scrubber Liquor Tank (25T12);
- Transfer lines from the FSA Scrubber Liquor Tank (25T12) to the FSA Product Tanks: FSA A Tanks, FSA B Tank, and FSA C Tank
- Lines from Seal Tanks to FSA Scrubber Liquor Tank (25T12).

Pond Water Neutralization Tank and Transfer Line

- Pond Water Neutralization Tank (Figure 9)
- Pond Water Neutralization Line (Figure 9/Table 7)

4. Grandfathered Units

The following units serve Downstream Operations but are not feasibly segregated from Upstream Operations. The wastes from these units may be managed with wastes from Upstream Operations.

Phosphoric Acid Tanks

None

Transfer Lines

None

FSA Tanks and Transfer Lines

- Swift Towers on Evaporators;
- Seal Tanks on FSA Recovery System

B. Granulation Plants

Mosaic Riverview's granulation process consists of two basic parts: (1) the wet (e.g., reactor, acid scrubber system); and (2) the dry side (e.g., granulator, dryer).

In addition, Mosaic Riverview will install a re-slurry system that recovers product that becomes wet and cannot be recovered through the dry side's reclaim system. Mosaic will mix the product in a re-slurry tank with 30% acid, fresh water and/or GHT effluent as a batch process. This slurry will then be fed back into the acid scrubber system for recovery.

MAP, DAP and MES manufacturing operations are Downstream Operations; however, the units listed below are Recovery Units and are identified within the perimeters shown in Figure 12.

The following equipment in the Granulation Plant are BHT Recovery Units. Wastes from BHT Recovery Units are recovered into Upstream Operations as designated in this Report or to the BHT itself as described in Section VI. Compliance Projects (Projects 1 and 2) of this Report and Sections 3 and 6 of the BMP:

- #5 DAP 54% Acid Tank (33T01);
- #6 DAP 54% Acid Tank ("60K"- 30T04);
- East Dock Tank (25T11); and
- West Dock Tank (25T10);

The following equipment in the Granulation Plants are GHT Recovery Units. Wastes from GHT Recovery Units are recovered into the granulation process as designated in this Report or to the GHT itself as described in Section VI. Compliance Projects (Projects 3, 4, and 5) of this Report and Sections 3 and 6 of the BMP:

a. Granulation re-slurry system;
b. Granulation acid scrubbers;
c. Granulation reactor;
d. Granulator;
e. Dryer;
f. Cooler;
g. Elevators;
h. Screen and milling equipment;
i. Granulation tailgas scrubbers;
j. Acid transfer lines from the Phosphoric Acid storage tanks to the Granulation plant.

VI. Compliance Projects

The projects described below are not all the projects in Appendix 6 (Compliance Schedule) to the Consent Decree but are the projects that are recovery related – the BHT, GHT and reslurry systems. Timeframes for completion of the projects are found in Appendix 6 (Compliance Schedule) to the Consent Decree.

Projects 1 and 2 comprise a plan that will enable Mosaic Riverview to clean Upstream, Mixed-Use, Grandfathered, and BHT Recovery Units and recover value from the wastes as described below.

Projects 3, 4, and 5 are projects related to the Downstream Operations in Granulation and recovery of material in the granulation process.

A. BHT and Cleaning Solution Return Piping Projects

1. Project Descriptions

Project 1: Big Holding Tank and Wash Solution System in the Phosphoric Acid Plant

The Big Holding Tank and wash solution system (together designated the "BHT system") project in the Phosphoric Acid Plant shall install new tank(s) piping, and controls to enable Mosaic to recover the value of wastes, as specified in Section VI.A.2 Project Operations below.

Mosaic will install two new BHTs for the BHT system. One of the tanks may be used in services other than BHT when not operating as a BHT (which other use shall not alter or nullify the status of the backup tank as a BHT Recovery Unit or preclude its use as a part of Upstream Operations, if appropriate). The BHT backup tank(s) will be used during cleaning and/or maintenance of the BHT tank. Cleaning waste from the BHT backup tank will be handled in the same way as the cleaning waste from the BHT itself as described in Section 2. Phosphoric Acid Plant Cleaning Procedures of the BMP.

In addition, new or upgraded pumps, motors, small pump tanks, and instrumentation may be needed to ensure the return to the BHT cleaning wastes and spills and leaks of: (1) phosphoric acid, sulfuric acid, FSA, SACS, PACS, FSACS, or BHT Effluent; or (2) NHACS, Process Wastewater, or Phosphogypsum Stack System Wastewater when mixed with any of the preceding solutions due to spills, leaks, or cleaning of leaks and spills to the BHT. Project 1 necessarily coincides with Project 2 below.

Project 2: Cleaning Solution Return Piping

Mosaic will install new piping to enable Mosaic to: (1) clean phosphoric acid transfer lines from the Phosphoric Acid Plant to the #6 DAP/MAP and #5 DAP Granulation Plants and the Dock Tanks and return those cleaning wastes to the BHT; (2) clean BHT Recovery Units located in the Granulation Plants and return those wastes to the BHT; and (3) clean FSA system and return those wastes to the BHT.

2. Project Operations

The wash solution system will be comprised of the BHT and the SACS make up tank(s), along with pumps and piping to supply cleaning solution to units that are part of Upstream Operations, or are identified as Mixed-Use, Grandfathered, or BHT Recovery Units.

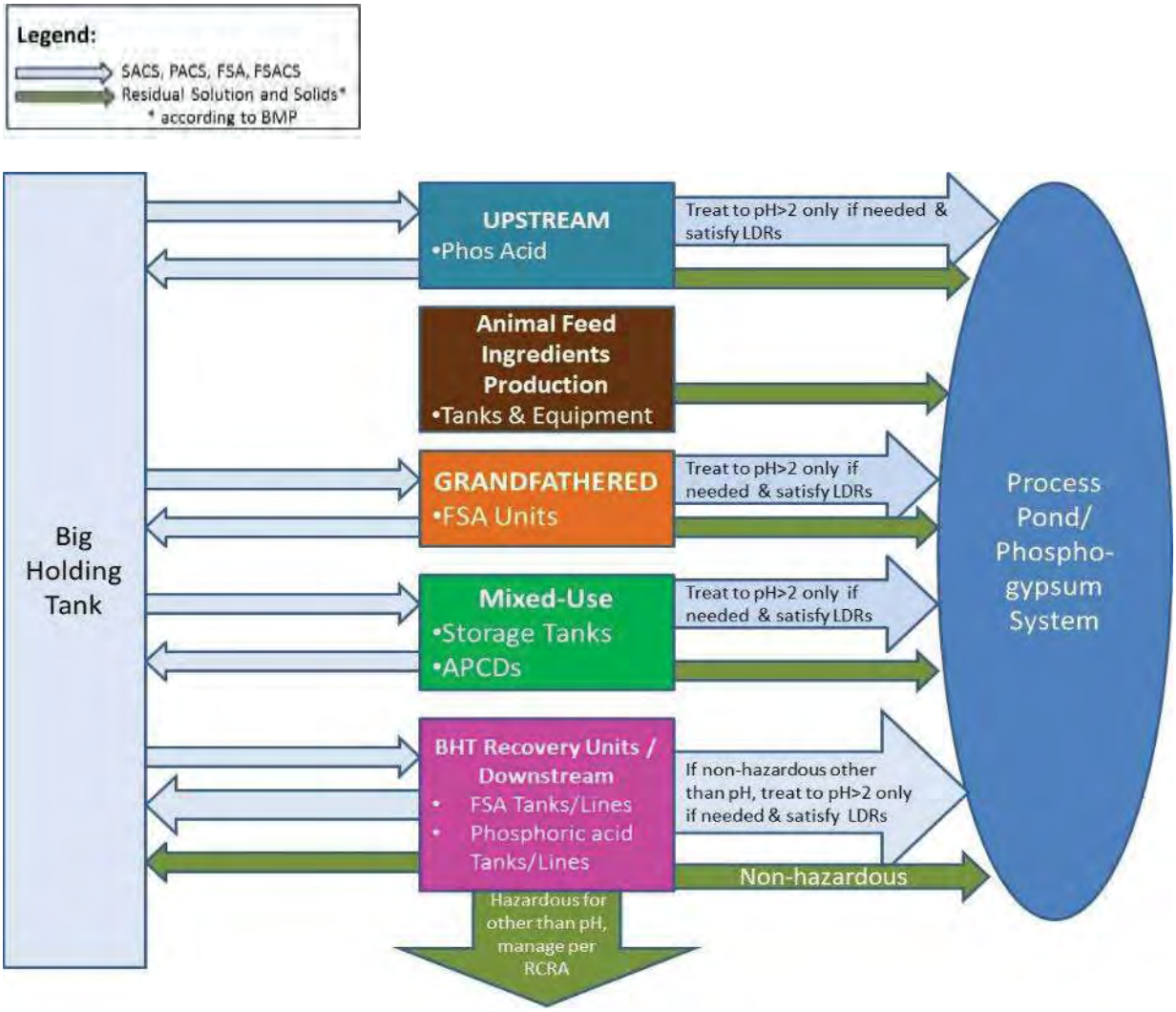
Phosphogypsum Stack System Wastewater, Process Wastewater, fresh water, condensate or other water sources will be mixed with sulfuric acid, FSA, phosphoric acid or BHT Effluent in the SACS wash make up tank(s) or BHT. The equipment and lines that are part of Upstream Operations or are identified as Mixed-Use, Grandfathered, or BHT Recovery Units may be washed with SACS either from the BHT or the SACS wash make up tank and the solutions may be returned to the BHT.

In addition, the BHT will enable Mosaic to recover the value of wastes generated from the use of SACS, FSA, FSACS, PACS, Non-Hazardous Aqueous Cleaning Solution, Process Wastewater, Phosphogypsum Stack System Wastewater, BHT Effluent from pipes, tanks, process equipment, or other storage or transport units that: (i) are part of Upstream Operations, (ii) serve to manage, store, or transport Bevill-Exempt Wastes; or (iii) are identified as Mixed-Use, Grandfathered Units, or BHT Recovery Units in this Report. In accordance with the BMP, the BHT will also enable Mosaic to recover spills and leaks in Containable Impervious Areas described in Section VII of this report. The BHT may also receive transfers from the GHT in accordance with Section VI. Compliance Projects, B.2. Project Operations of this Report.

The BHT shall in turn return the recoverable streams into Upstream Operations where their values are recovered or managed through the following (Figure 1):

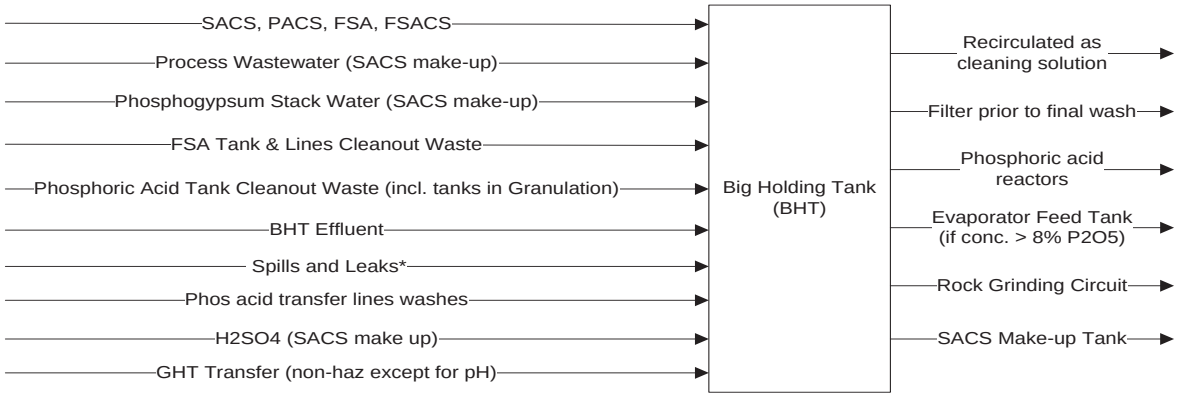
a. as an intermediate wash on the filter, prior to the final cake wash, to inhibit scale formation. This wash ultimately circulates back to the reactor (attack tank); and/or
b. as direct make up to the phosphoric acid reactors; and/or
c. neutralized in the Pond Water Neutralization System and then added to the rock grinding circuit where it will ultimately end up in the slurry fed into the phosphoric acid reactors; and/or
d. discharged to the Phosphogypsum Stack System, if in compliance with the LDR standards set forth in 40 C.F.R. Part 268, Subpart D; and/or
e. if the P_2O_5 content is at least 8% the BHT Effluent may be placed in the evaporator feed tanks for P_2O_5 recovery.

Figure 1: BHT Inputs and Effluents[7]



[7] This Figure is a simplification of the management requirements for BHT inputs and effluents. Nothing in this Figure substitutes for or overrides the narrative descriptions in this Facility Report.

Figure 2: BHT Inputs and Effluents



* Spills and Leaks include: P2O5, H2SO4, FSA and mixtures of the proceeding with Process Wastewater, Phosphogypsum Stack Water and NHACS

B. GHT Related Projects

1. Project Descriptions

Project 3: Granulation Plant Re-slurry System

Mosaic will install product recovery tank, hopper, piping, steam feed, valves, agitator, and pumps to recover wet fertilizer product. The resulting slurry will be fed to the acid scrubber system for consumption in the granulation process. This may be one system for both granulation plants, or it may be two systems, one for each granulation plant.

Project 4: Granular Holding Tank and Wash Solution System in the Granulation Plant

Mosaic will install either one common or two Granular Holding Tank (GHT) systems for the #5 DAP and #6 DAP/MAP granulation plants (Figure 16). The GHT plus intermediate holding tanks, piping, pumps, and instrumentation (together the "GHT system") will transport and recirculate wash solution between GHT Recovery Units and the GHT and consume the wash solution in the granulation plants (#5 DAP and #6 DAP/MAP) as specified in Section VI.B.2 Project Operations below.

Project 5: Upgrade Granulation Plants' Pads and Sumps As Needed

Mosaic will modify or install, as needed, containment pads and sumps in each granulation plant to improve the capture of spills, leaks, and cleaning solution so materials may be returned to the granulation process via the GHT, as identified in the Riverview Facility Report.

2. Project Operations

The GHT system will enable Mosaic to recover the value of wastes generated from the use of SACS, PACS, Non-Hazardous Aqueous Cleaning Solution, Process Wastewater, Phosphogypsum Stack System Wastewater, or GHT Effluent from pipes, tanks, process equipment, or other storage or transport units identified as GHT Recovery Units or manage those wastes as described in Section 3. Granulation Plants Cleaning Procedures of the BMP. In accordance with the BMP, the GHT will also enable Mosaic to recover spills and leaks in Containable Impervious Areas described in Section VII of this report.

A. The GHT shall in turn reuse or recover the recoverable streams as follows:

   a. consumed in the acid scrubber system for consumption in the granulation process; and/or

   b. consumed directly into the granulation reactor; and/or

   c. added to the re-slurry system; and/or

   d. recirculated to clean GHT Recovery Units.

B. In GHT cleaning situations identified in Section 3: GHT Cleaning and Non-Routine Transfer Situations of the BMP, Mosaic may transfer the contents of the GHT to the BHT if they are RCRA non-hazardous. If the contents of the GHT are hazardous only for the RCRA corrosivity characteristic (pH ≤ 2), Mosaic may transfer the contents to the BHT no more than two times per calendar year. The GHT shall then be washed with a cleaning solution (SACS, PACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS). If the wash solution is hazardous only for RCRA corrosivity (pH ≤2), it may be transferred to the BHT not more than two times per calendar year. If the solution is non-hazardous, it can be transferred to the BHT or sent to the Phosphogypsum Stack System.

C. In addition to GHT cleaning situations in B, in non-routine situations (such as mechanical failure in the Granulation Plant, unexpected plant outages, electrical power failures, hurricanes or similar weather events or unexpected problems during startups) and if the GHT is (or imminently will be) at or above 90% (full), Mosaic may transfer GHT Effluent if non-hazardous or hazardous only for the RCRA corrosivity characteristic (pH ≤ 2) to the BHT, in order to create additional capacity in the GHT, until the GHT's capacity is at 50% (full), provided that Mosaic:

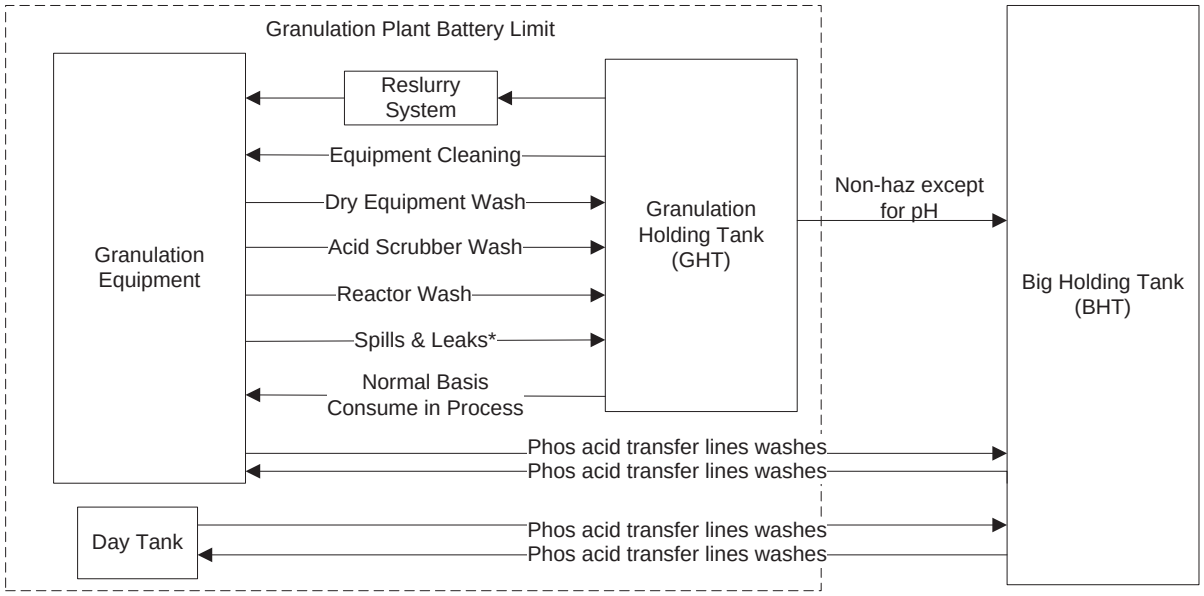
   i) Manages use of the GHT to BHT transfer line by locking the valve on the transfer line or a system interlock requiring a code to activate;

   ii) Obtains approval from its area manager to make the transfer; and

   iii) Includes information on each transfer in its reports to the EPA and FDEP as required in Paragraph 41 of the CD.

If Mosaic chooses not to reuse or recover the GHT Effluent as described above, the GHT Effluent must instead be managed in accordance with RCRA.

Figure 3: GHT Inputs and Effluents



* Spills and Leaks include: P2O5, H2SO4 and mixtures of the proceeding with Process Wastewater, Phosphogypsum Stack Water and NHACS

VII. Containment of Phosphoric Acid Product Spills and Leaks

Any impervious[8] manufacturing or storage areas not identified in this section as Containable Impervious Areas are considered to be Non-Segregable Areas.

Non-Segregable Areas

Approximately 50% of Mosaic Riverview's Phosphoric Acid Plant's impervious areas have 40-mil HDPE liner installed beneath them. The concrete pad is sloped towards concrete-lined trenches (denoted by orange lines in Figure 10) that transport any leaks and spills to the Phosphogypsum Stack System. Process Wastewater flows through the trenches at a rate of approximately 60,000 GPM to the HDPE-lined Phosphogypsum Stack system. Due to the engineered slope of the concrete pad in these areas and the configuration of the Phosphoric Acid Plant, small spills and leaks of phosphoric acid, sulfuric acid, and FSA onto the concrete pad cannot be feasibly segregated ("non-segregable areas") and are mixed in the trenches with the Process Wastewater flowing to the Phosphogypsum Stack system and managed pursuant to Appendix 5, BMP to the Consent Decree. Mosaic may manage small spills and leaks of phosphoric acid, sulfuric acid, and FSA within the concrete areas of the Phosphoric Acid plant) in accordance with the BMP. There are some areas in the Phosphoric acid area that are not concreted and they are shown with redlines in Figure 10.

---

[8] Note, the use of the term "impervious" in this section does not refer to a particular definition of impervious or a particular leakage rate, but instead is used to mean a surface barrier to penetration, such as concrete, liners, steel, epoxy, etc. The term impervious in this section does not include gravel or soil.

Containable Impervious Areas

1. #6 DAP/MAP Plant and Acid Pad
2. Dry Products Tank Farm
3. #5 DAP Plant and Acid Pad
4. 300K Tank Area
5. 30% Clarifier Area
6. 54% Clarifier Area
7. 43% Clarifier Area
8. FSA and Phosphoric Acid Loadout
9. SACS Wash Tank
10. FSA Tank Farm Area
11. East and West Dock Tanks

Spills and leaks of phosphoric acid, sulfuric acid, and FSA onto impervious areas designated by yellow lines in Figure 11 and Figure 12 ("containable impervious areas") shall be separately contained, and then recovered in accordance with the BMP. The foregoing shall not relieve Mosaic of its obligations under any applicable law.

Other Areas

Any leak or spill of a hazardous material, including phosphoric acid and sulfuric acid, that is not contained within the Containable Impervious Areas or Non-Segregable Areas of the plant shall be managed in accordance with the BMP. The foregoing shall not relieve Mosaic of its obligations under any applicable law.

VIII. Proposed Phosphoric Acid Production-Related Operations

Mosaic has advised EPA and FDEP that it is considering one or more of the following projects at its Riverview facility, but planning has not evolved to where detailed information is available.

Figure 13 depicts Upstream, Mixed-Use, BHT Recovery, and Grandfathered Units. In the event that Mosaic reconfigures its Facility in accordance with Figure 14, Figure 15, Diagram 2 and Diagram 3, then Figure 14 and Figure 15 shall replace Figure 13 as identifying Upstream Operations, BHT Recovery Units, Grandfathered Units and Mixed Used Units for the Phosphoric Acid Plant.

*

[redacted]

However, the Consent Decree does not bind Mosaic to implement the proposed project(s) as depicted in Figure 14, Figure 15, Diagram 2 and Diagram 3. If Mosaic chooses to implement any changes through a different process than any of those depicted in Figure 14, Figure 15, Diagram 2 and Diagram 3 in this Facility Report, the Report shall be modified prior to implementation pursuant to Section XVIII (Modification) of the Consent Decree and EPA and FDEP will determine whether the new process as designed involves Upstream Units, Mixed-Use Units, Grandfathered Units, BHT Recovery Units or Downstream Units and amend the Facility report to memorialize those determinations consistent with the descriptions below. Such determination shall be conditioned upon the new process being built substantially as designed. If the new process deviates from that standard,

** = Portions of this section have been omitted pursuant to a request for confidential treatment. An unredacted version of this section has been filed separately.*

EPA and FDEP will determine whether the new process as built involves Upstream Operations, Mixed-Use Units, Grandfathered Units, BHT Recovery Units or Downstream Operations and amend the Facility Report to memorialize those determinations consistent with the descriptions below.

*

[redacted]

** = Portions of this section have been omitted pursuant to a request for confidential treatment. An unredacted version of this section has been filed separately.*

*

[redacted]

IX. Non-Phosphoric Acid Production Proposed Projects

Mosaic has advised EPA and FDEP that it is considering one or more of the following projects at its Riverview Facility, but planning has not evolved to where detailed information is available. Once Mosaic decides to implement one of these proposed project and the project has identifiable units associated with the process, Mosaic should confer with FDEP and EPA to assign unit designations and modify the Facility Report.

*

[redacted]

X. Authorized Future Installations

This section applies to future installations that were not considered based on current or proposed projects.

A. Procedure

The projects in (B) below will be deemed Upstream Units, Mixed-Use Units, Grandfathered Units or Recovery Units as applicable, when installed within contained concrete areas and will not require prior approval by FDEP or EPA provided that:

(i) Mosaic's Phosphogypsum Stack System is in compliance with the requirements of Appendix 1, Attachment B (Groundwater and Zone of Discharge Requirements), Attachment C (Phosphogypsum Stack System Construction and Operational Requirements) of the Consent Decree, and that Mosaic is in compliance with the Financial Assurance requirements of the Consent Decree (Paragraph 25 and Appendix 2); and

(ii) Mosaic provides EPA and FDEP with written notice at least 90 Days in advance of the reconfiguration or installation of said project.

However, if as a result of circumstances that require Mosaic to install or reconfigure such equipment in less than 90 Days from the time a decision is made to undertake such action, Mosaic shall provide written notice to FDEP and EPA as soon as possible and in all events prior to the installation or reconfiguration of such equipment; and

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(iii) Mosaic obtains and/or modifies any permit(s) required by local, state, or federal agencies; and

(iv) Mosaic submits to FDEP and EPA for approval a modified version of this Facility Report with the changes identified at least 60 Days in advance of the reconfiguration or installation of said project; and

(v) if applicable, Mosaic submits to FDEP and EPA for approval any modified section(s) of Appendix 5 (Best Management Practices Plan) at least 45 Days in advance of the reconfiguration or installation of said project.

B. Future Installations

1. Any existing tank within the battery limits of the Phosphoric Acid Plant (Figure 13) which may or may not be storing phosphoric acid, can be converted to phosphoric acid storage service up to, but excluding Merchant Grade Acid. Any tank placed into phosphoric acid storage service shall be structurally adequate and physically compatible with the contents of the tank.

2. Up to a total of two new phosphoric acid tanks storing First Saleable Product may be added within the battery limits of the Phosphoric Acid Plant (Figure 13), where the stored phosphoric acid product in the new tank(s) will be sent for use in Granulation so long as the new unit performs the same function as the existing Grandfathered or BHT Recovery Unit tanks identified in this Facility Report. The installation of more than two such tanks shall require advance approval by EPA and FDEP in order to be considered a BHT Recovery Unit or a Grandfathered Unit.

3. APCDs (scrubbers) may be newly installed, replaced, or modified if they are servicing Upstream Units or Mixed-Use Units identified in this Facility Report. APCDs may not be reconfigured to service any Downstream processes or any chemical processes which they are not serving as identified in this Facility Report.

4. Phosphoric acid piping systems and underflow piping systems associated with Upstream Units, Mixed-Use Units, BHT Recovery Units, or Grandfathered Units identified in this Facility Report may be installed, replaced, or modified provided that the replacement or modified systems are located within the battery limits of the Phosphoric Acid Plant (Figure 13) or the Tank Farms, excluding DAP, and serve only the phosphoric acid production operations identified in this Facility Report for those Upstream Units, Mixed-Use Units, BHT Recovery Units, or Grandfathered Units.

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** = Portions of this section have been omitted pursuant to a request for confidential treatment. An unredacted version of this section has been filed separately.*

Figure 4: Mosaic Riverview Process Flow Diagram

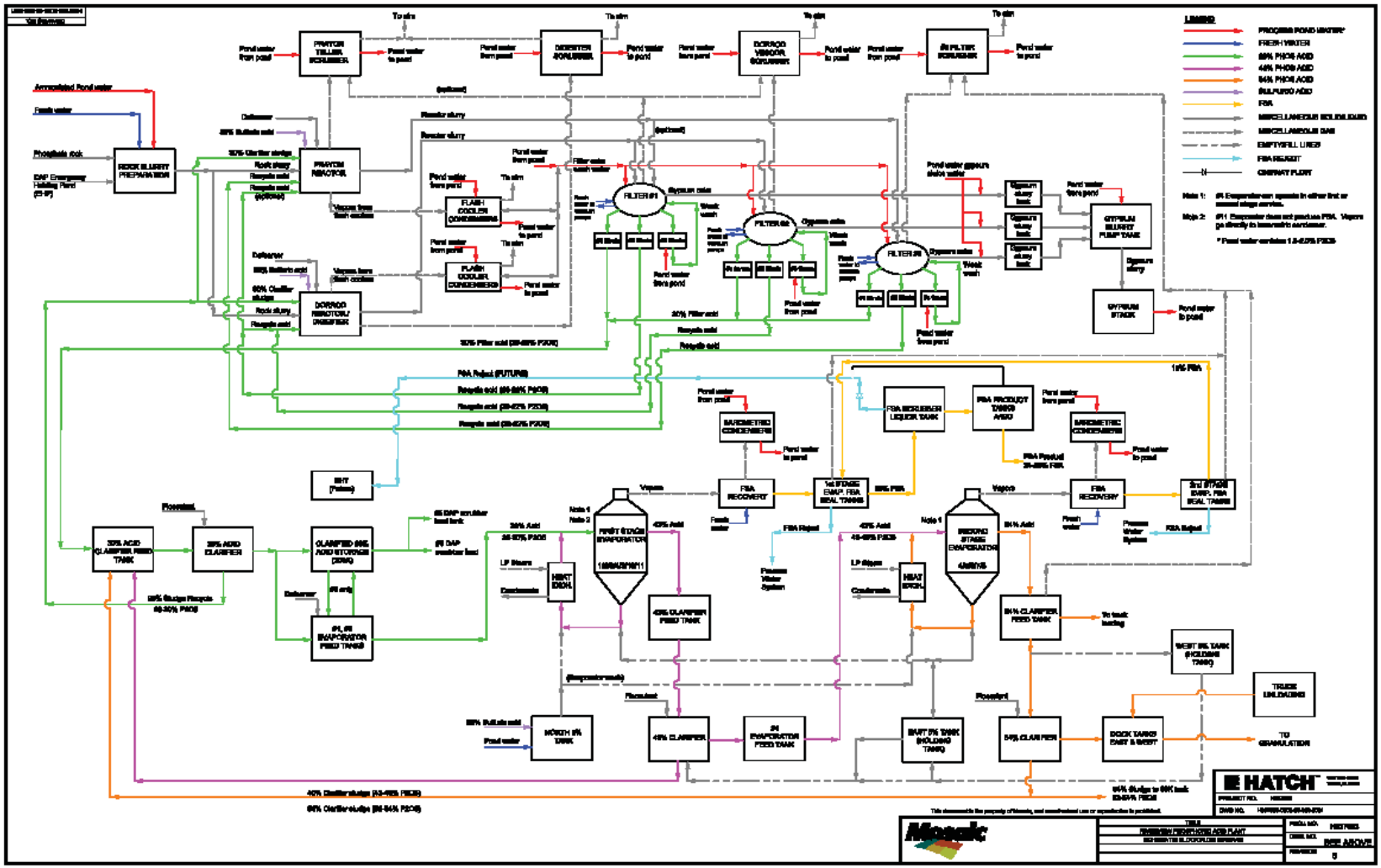


Table 2: Transfer line for phosphoric acid from Phosphoric Acid Plant to Truck Loading (corresponds with Figure 5)

	Service	Name	Description	Cleaning Frequency	Estimated Length (ft) [9]
Phosphoric Acid Plant to Truck Loading	54% Acid	East 54 Clarifier Feed Line	Transfers unclarified 54% acid to truck loading station for transport to Mosaic's New Wales or Bartow Facilities	As needed	330
	Estimate for Existing Lines		**Estimate Length - Plan View (ft)**		330
			Estimated Vertical Runs- Basis 20% Factor (ft)		66
			Total Estimated Piping Length (ft)		396

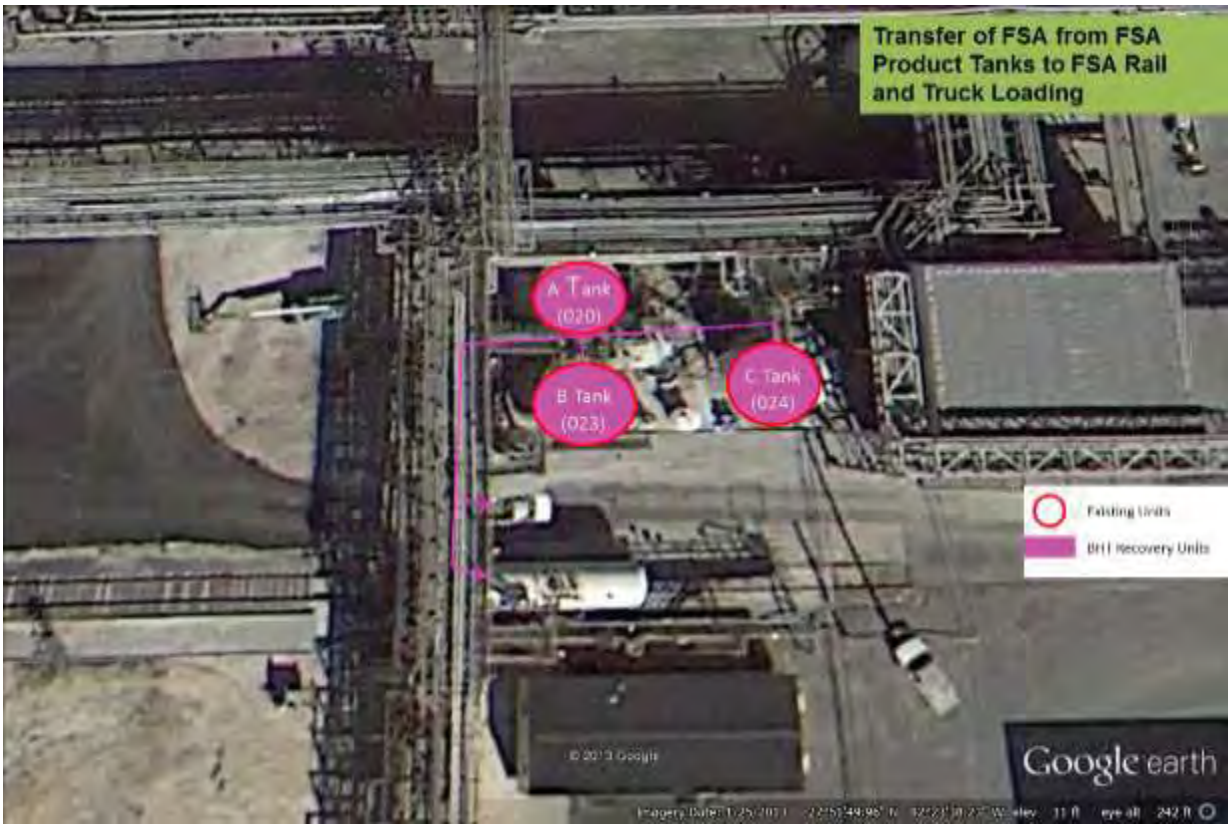
Figure 5: Transfer line for phosphoric acid from Phosphoric Acid Plant to Truck Loading (corresponds with Table 2)

[9] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Table 3: FSA Shipping Line from FSA Product Tanks to FSA Rail and Truck Loading (corresponds with Figure 6)

	Service	Name	Description	Cleaning Frequency	Estimated Length (ft)[10]
Phosphoric Acid Plant to Rail and Truck Loading	FSA	FSA Shipping	Transfers Product FSA from Product Tanks A, B and C to Rail or Truck Loadout	As needed	120
	Estimate for Existing Lines		**Estimate Length - Plan View (ft)**		120
			Estimated Vertical Runs - Basis 20% Factor (ft)		24
			Total Estimated Piping Length (ft)		144

Figure 6: FSA Shipping Line from FSA Product Tanks to FSA Rail and Truck Loading (corresponds with Table 3)



[10] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Table 4: BHT Recovery Units – transfer lines for phosphoric acid to East and West Dock Tanks (corresponds with Figure 7 and Figure 8)

	Service	Name	Description	Cleaning Frequency	Estimated Length (ft) [11]
Phosphoric Acid Plant to Dock Tanks	54% Acid	East 54% Overs Lines	Transfers 54% Acid from 54 Clarifier to East Dock Tank or West Dock Tank	As Needed	2,640
	54% Acid	West 54% Overs Line	Transfers 54% Acid from 54 Clarifier to East Dock Tank or West Dock Tank	As Needed	2,640
	Estimate for Existing Lines		**Estimate Length - Plan View (ft)**		5,280
			Estimated Vertical Runs - Basis 20% Factor (ft)		1,320
			Total Estimated Piping Length (ft)		6,600

Table 5: BHT Recovery Units transfer lines for phosphoric acid to #6 DAP/MAP (corresponds with Figure 7)

	Service	Name	Description	Cleaning Frequency	Estimated Length (ft) [12]
Phosphoric Acid Plant to #6 DAP/MAP	30% Acid	B-30 Line	Transfers 30% acid from 300K tank to #6 DAP/MAP scrubber	As needed	678
	30% Acid	C-30 Line	Transfers 30% acid from 300K tank to #6 DAP/MAP Scrubber	As Needed	678
	54% Acid	North/South Lines	Transfer unclarified 54% acid from the 54 Clarifier to #6 DAP/MAP 54% Acid Tank	As Needed	1,181
	54% Acid	East Fill Line/East Transfer Line	Transfers clarified 54% acid from the East Dock Tank to #6 DAP/MAP 54% Tank	As Needed	1,900
	54% Acid	West Fill Line/West Transfer Line	Transfers clarified 54% acid from the West Dock Tank to #6 DAP/MAP 54% Tank	As Needed	1,814
	Estimate for Existing Lines		**Estimate Length- Plan View (ft)**		6,251
			Estimated Vertical Runs - Basis 20% Factor (ft)		1,250
			Total Estimated Piping Length (ft)		7,501

[11] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

[12] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Figure 7: BHT Recovery Units - transfer lines for phosphoric acid to #6 DAP/MAP (corresponds with Table 5)

Table 6: BHT Recovery Units transfer lines for phosphoric acid to #5 DAP (corresponds with Figure 8)

	Service	Name	Description	Cleaning Frequency	Estimated Length (Ft) [13]
Phosphoric Acid Plant to #5 DAP	30% Acid	A-30 Line	Transfers 30% acid from 300K Tank to #5 DAP scrubber	As needed	1,150
	30% Acid	B-30 Line	Transfers 30% acid from 300K Tank to #5 DAP scrubber	As needed	1,150
	54% Acid	East Fill Line/ East Transfer Line	Transfers clarified 54% acid from the East Dock Tank to #5 DAP 54% Acid Tank	As needed	1,700
	54% Acid	West Fill Line/ West Transfer Line	Transfers clarified 54% acid from the West Dock Tank to #5 DAP 54% Acid Tank	As needed	1,590
	Estimate for Existing Lines		**Estimate Length - Plan View (Ft)**		5,590
			Estimated Vertical Runs - Basis 20% Factor (Ft)		1,120
			Total Estimated Piping Length (Ft)		6,710

Figure 8: BHT Recovery Units - transfer lines for phosphoric acid to #5 DAP (corresponds with

[13] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Table 6)

Table 7: BHT Recovery Units neutralized process wastewater transfer line from #6 DAP/MAP to Rock Grinding (corresponds with Figure 9)

	Service	Name	Description	Cleaning Frequency	Estimated Length (Ft) [14]
Neutralized Process Wastewater to Rock Grinding	Neutralized process wastewater	Pond Water Neutralization Line	Transfers neutralized process wastewater from Pond Water Neutralization Tank to Rock Grinding	As needed	1,180
	Estimate for Existing Lines		**Estimate Length - Plan View (Ft)**		1,180
			Estimated Vertical Runs - Basis 20% Factor (Ft)		240
			Total Estimated Piping Length (Ft)		1,420

[14] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Figure 9: BHT Recovery Units neutralized process wastewater transfer line from #6 DAP/MAP to Rock Grinding (corresponds with Table 7)

Table 8:Transfer Line for phosphoric acid from the truck unloading station to the Dock Tanks (corresponds with Figure 17)

	Service	Name	Description	Cleaning Frequency	Estimated Length (ft) [15]
Truck Unloading to Dock Tanks	54% Acid	Phosphoric acid Unloading line	Transfers 54% phosphoric acid from truck unloading station to the Dock Tanks	As needed	250
	Estimate for Existing Lines		**Estimate Length - Plan View (ft)**		250
			Estimated Vertical Runs- Basis 20% Factor (ft)		50
			Total Estimated Piping Length (ft)		300

Figure 17: Transfer Line for phosphoric acid from the truck unloading station to the dock tanks (corresponds with Table 8)

[15] The lengths listed in this chart are estimates based on interpreting Google Earth images. The actual lengths may differ.

Figure 10: Ditch and Swale Diagram at Phosphoric Acid Plant

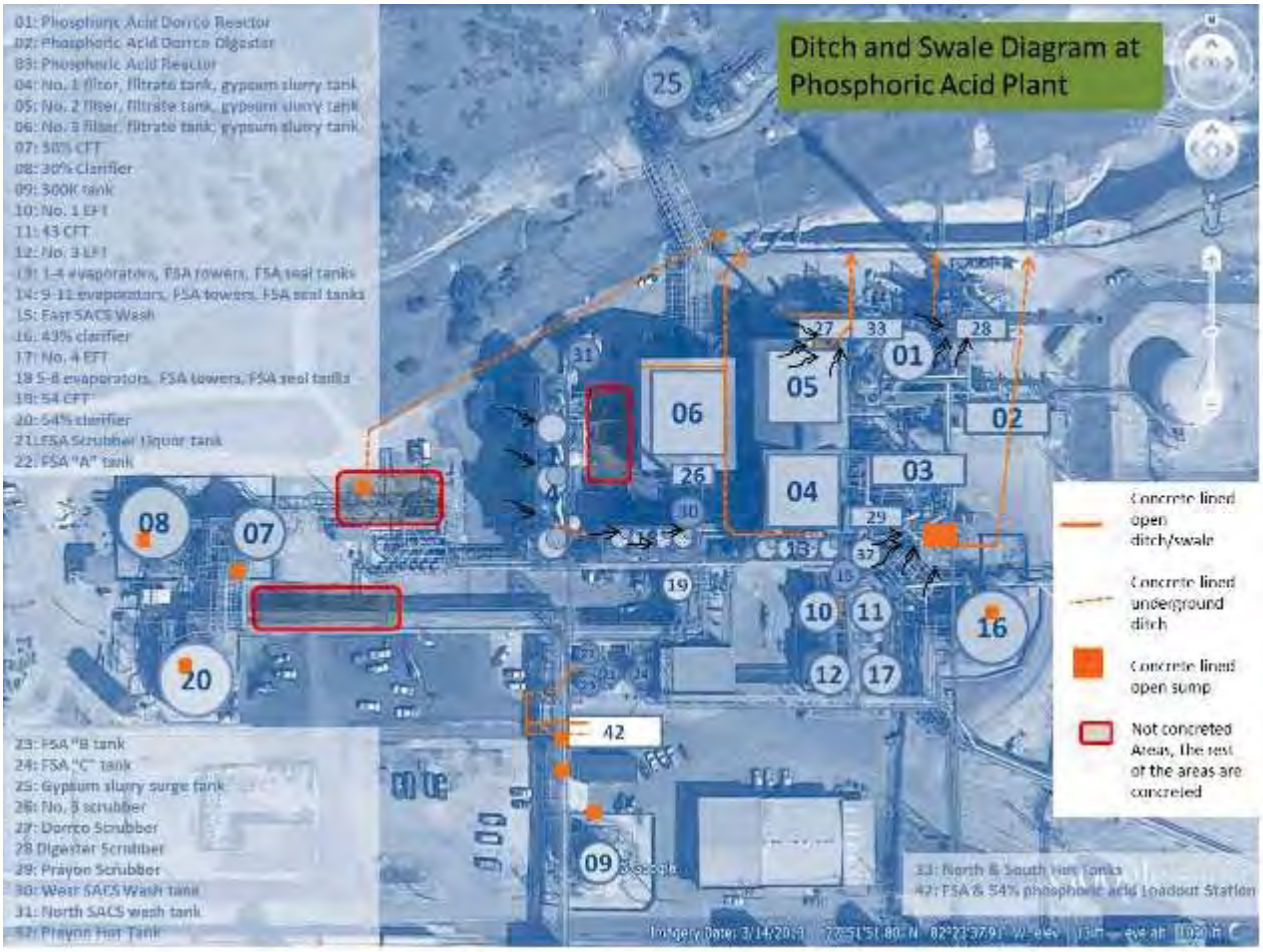


Figure 11: Containable Impervious Areas at Phosphoric Acid Plant

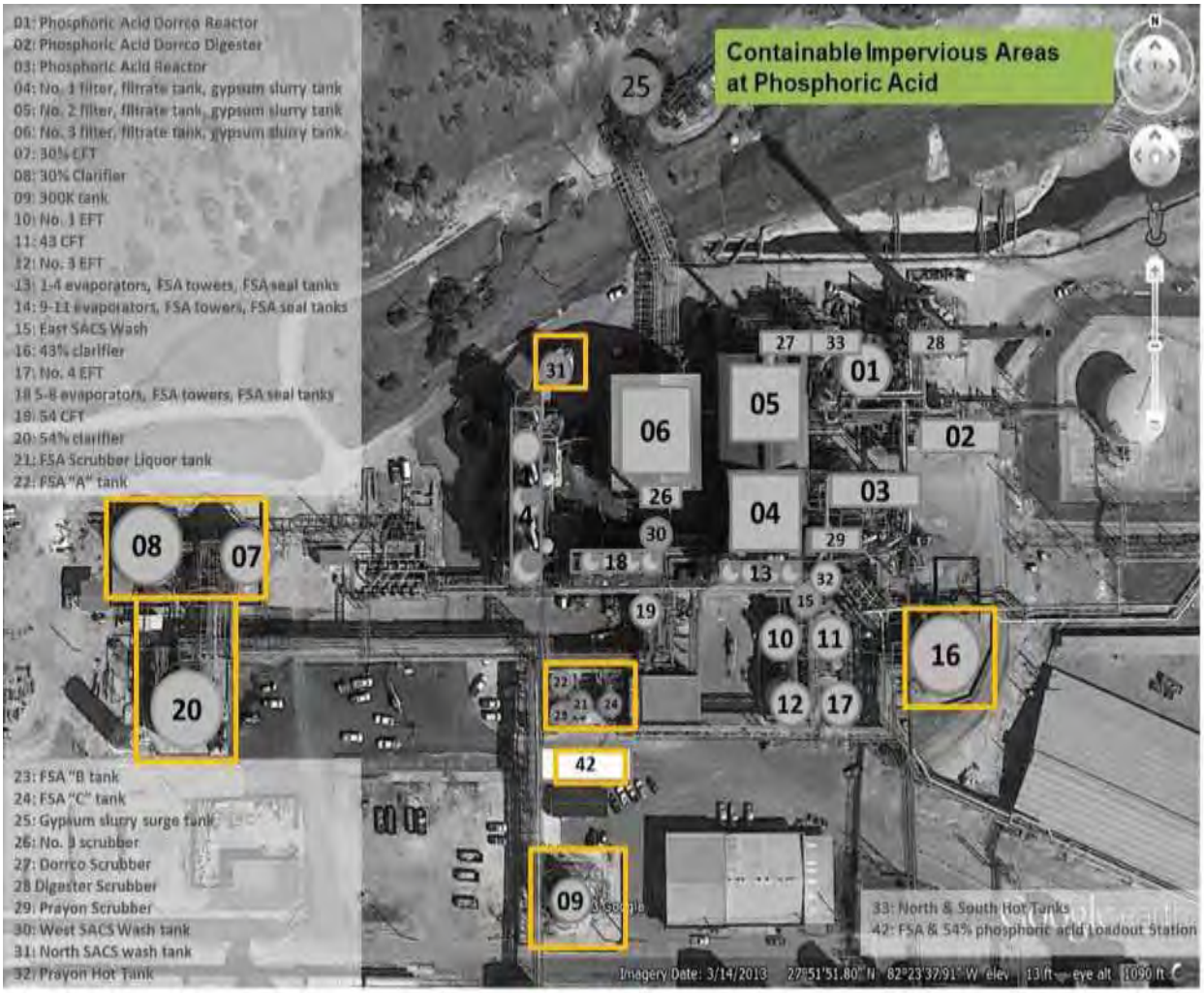


Figure 12: Containable Impervious Areas at Granulation

Figure 13: Equipment designations for Upstream, Mixed-Use, Grandfathered and BHT Recovery Units.

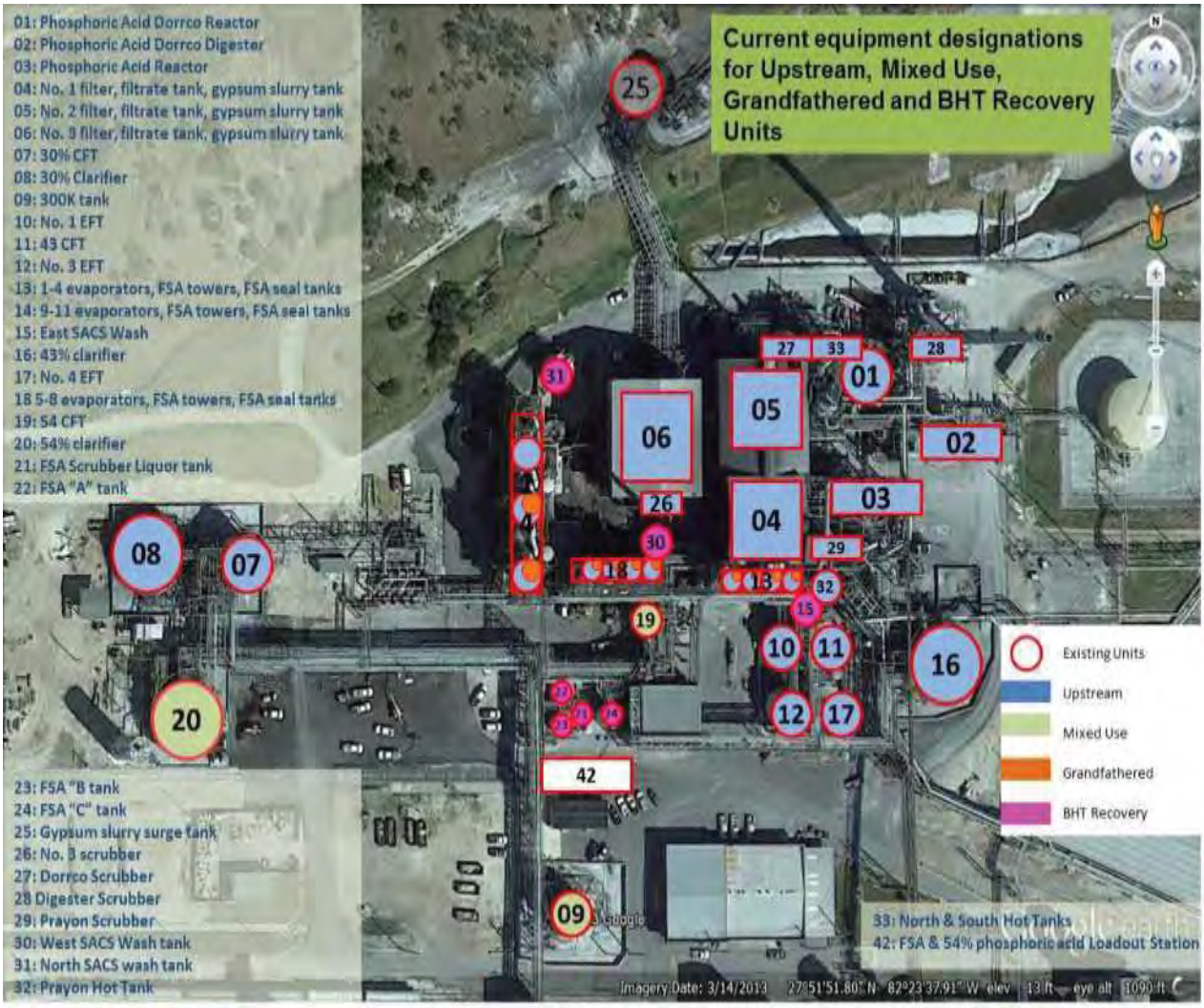


Figure 14: Proposed locations for planned [redacted]*

*

** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

Figure 15: Proposed equipment configurations for Upstream, Mixed-Use and BHT Recovery Units

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** = Portions of this figure have been omitted pursuant to a request for confidential treatment. An unredacted version of this figure has been filed separately.*

Figure 16: GHT Location for DAP5 and #6 DAP/MAP

APPENDIX 5

Appendix 5

Mosaic Fertilizer LLC
Best Management Practices Plan

BARTOW
NEW WALES
RIVERVIEW
UNCLE SAM

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All capitalized terms not otherwise defined in this Appendix shall have the meaning set forth in the Consent Decree.

INTRODUCTION

Mosaic has developed Appendix 5: Best Management Practices Plan (hereinafter either "BMP" or "Plan") to reduce unintended (and seek to eliminate unauthorized) inputs of phosphoric acid, sulfuric acid, fluorosilicic acid (FSA), SACS, PACS, and FSACS to Process Wastewater entering the Phosphogypsum Stack System. Where possible, Mosaic will capture and reuse these acid loses.

Through the BMP, Mosaic has established procedures to address the management, tracking, and reporting of phosphoric acid, sulfuric acid, and FSA leaks and spills for four of its fertilizer production facilities—Bartow, New Wales, Riverview, and Uncle Sam[1]—in areas of the phosphoric acid plants (post first-stage filtration, e.g. bird or belt filters), including acid clarification and evaporation, and in the granulation plants. The specific details of the BMP for the phosphoric acid and granulation plants are discussed in the Sections that follow and the referenced Attachments. Where noted, certain BMP procedures are dependent upon the commencement of operation of the compliance projects set forth in Appendix 6 (Project Narrative & Compliance Schedules), to the Consent Decree.

SECTION 1: PHOSPHORIC ACID PLANTS LEAK/SPILL DETECTION SYSTEMS AND RESPONSE PROCEDURES

1.1 General

Mosaic will implement two approaches to increase the likelihood of detecting non-segregable acid leaks, spills and process upsets: operator inspections and process stream conductivity monitoring, which are discussed in greater detail below. While conductivity monitoring is exclusive to the Process Wastewater system (non-segregable areas), operator inspections also serve to identify observable leaks and spills of acids regardless of the area of the plant where they occur – non-segregable, contained impervious, or outside contained impervious area.

1.2 Release Reporting

Mosaic personnel are responsible for notifying the appropriate personnel immediately upon the identification of a leak or spill of any hazardous material listed in Attachment A, Table 1 BMP Actionable Volumes (hereinafter, "Table 1 Materials") pursuant to this BMP. This BMP does not

[1] Mosaic's Faustina facility is not covered under this Appendix and Mosaic's Plant City facility is the subject of a separate BMP Plan developed under a separate consent decree.

relieve Mosaic of its obligation to provide any such notifications under applicable federal, state, or local laws.

1.3 Inspections

Operators shall visually inspect the plant for leaks and/or spills of phosphoric acid, sulfuric acid, and FSA during their normal rounds a minimum of twice per shift and document the inspections. The operator shall correct any leaks from valves, flanges, pumps, or any other equipment that can be readily and safely corrected at the time of discovery. The incident shall be recorded in the tracking database known as AON Risk Management software or any other future data collection system which replaces or supplements AON Risk Management software (hereinafter, collectively referred to as "AON"). Any leaks or spills in excess of the applicable volume listed in Attachment A, Table 1 BMP Actionable Volumes (hereinafter "BMP Actionable Volume (Table 1)") shall be reported to management for further action and recorded in AON. Reporting responsibilities are outlined in Mosaic's Spill Reporting Policy and Procedure.

1.4 Conductivity System Description: Non-Segregable Spills/Leaks[2]

New Wales, Bartow, Riverview, and Uncle Sam shall monitor key outgoing streams (see Attachment B) with a conductivity system to enable the continuous detection of changes in conductivity that indicate occurrence of detectable acid leaks and spills. Each key outgoing stream shall have a conductivity probe to continuously measure the conductivity of the Process Wastewater as shown in Attachment B of this Plan. The conductivity of the return Process Wastewater stream shall be displayed on the operators' distributive control system, see Attachment B of this Plan.

If acid leaks or spills into an outgoing water or Process Wastewater stream, the conductivity of the water or Process Wastewater increases because the acid has a higher conductivity than the water. Visual alarms (see example in Attachment B of this Plan) shall be triggered if the conductivity increases beyond the set alarm limits for a 5-minute interval. Upon triggering of such an alarm, the area around the probe will be investigated. Individual conductivity probe locations are found in Attachment B of this Plan.

Individual conductivity probes will alarm based on the preliminary trigger values set for each probe found in Attachment B of this Plan. The targets shown in Attachment B of this Plan are the initial temperature compensated conductivity targets for Bartow, New Wales, Riverview and Uncle Sam, respectively. Pursuant to Section 9: BMP Performance Standards, of this BMP, Mosaic will monitor the conductivity probes at Bartow, New Wales, and Riverview for a year after June 30, 2015 and will monitor the conductivity probes at Uncle Sam for a year after January 31, 2016 to ensure settings are correct for alerting operations to leaks and spills within the limits of the probes when properly operated and calibrated.

When a visual alarm triggers, the operator shall inspect that piece of equipment or area of the plant for any problems and take appropriate measures to stop or minimize the release and minimize further impacts (see Attachment B of this Plan).

[2] Non-Segregable Areas are described in Facility Reports "Containment of Phosphoric Acid Product Spills and Leaks."

The conductivity system shall be maintained in accordance with specific manufacturer recommendations or acceptable industrial practices and updated as needed. Conductivity meters will be checked monthly and the instruments calibrated if necessary. The calibration dates and probe alarm limits shall be documented in the maintenance management system that is in place at the time. Maintenance and calibration procedures are found in Attachment B of this Plan.

1.5 Tracking/Recording

AON shall be used to track leaks and spills and the remedial measures taken to address a leak or spill. The area management, engineering, and environmental departments shall use AON to ensure the prompt and proper execution of remedial measures. When plant personnel identify a leak, spill or process upset (e.g. filtrate tank overflow), resulting in a release, appropriate remedial measures shall be taken as outlined below. A record of the incident shall be entered within 24 hours of the incident into AON to log and track releases of Table 1 Materials. Supervisors shall be trained to enter incidents into AON. AON tracks specific information including date and time of release, date and time of report, a description of the incident, volume of the material, type of material, and additional supporting information. AON generates emails to specific personnel that identify the severity and location of the incident. Mosaic personnel are responsible for notifying the appropriate personnel immediately upon the identification of a leak or spill, except for minor leaks or spills that already have been remedied.

1.6 Reporting, Recovery, and Remedial Measures

Management and environmental staff shall be notified of leaks or spills with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) as quickly as possible in order to verify the volume of the leak or spill and ensure that it is properly reported, documented, and corrected pursuant to this BMP.

Mosaic personnel are responsible for notifying the appropriate personnel immediately upon the identification of a leak or spill, except for minor leaks or spills that already have been remedied. AON shall be used to track leaks and spills and the immediate actions taken to address a leak or spill. The area management, engineering, and environmental departments shall use AON to ensure the prompt and proper execution of remedial measures.

1.6.1 Non-Segregable Areas of the Phosphoric Acid Plants:

1.6.1.1 Reporting

Any leak or spill of FSA, sulfuric acid, SACS, PACS, FSACS or phosphoric acid into a non-segregable area, as described in each Facility's Facility Report, which is detected as a result of visual inspections, audible alarms, conductivity monitoring, or operational detections (e.g. pressure losses) must be logged into AON. See Section 1.6.1.2: Remedial Measures, of this BMP.

If the leak or spill has the potential to exceed the BMP Actionable Volume (Table 1) in a rolling 24-hour period, appropriate management and environmental staff shall be notified and the leak or spill shall be properly reported, documented, and corrected pursuant to this BMP.

1.6.1.2 Remedial Measures

If any leak or spill of a Table 1 Material into a non-segregable area, as described in each Facility's Facility Report, with a reasonable potential to approach a BMP Actionable Volume (Table 1) within any rolling 24-hour period is discovered, Mosaic will take the following measures:

1) Investigate potential release sources.

2) Address any issues found.

   a. Stop the release if possible, such as by flow diversion or by closing the release gate.

   b. Generate a work order if needed to correct the issue.

3) Document the release in AON.

4) Report the release to EPA, FDEP, or LDEQ pursuant with the Consent Decree.

This BMP does not relieve Mosaic of its obligation to comply with any federal, state, or local laws applicable to such a leak or spill.

1.6.2 Containable Impervious Areas:

1.6.2.1 Reporting

Any leak or spill of a Table 1 Material into a containable impervious area, as described in each Facility's Facility Report and identified in Figure 10 (Bartow), Figure 9 (New Wales), Figure 7 (Uncle Sam), and Figure 11 (Riverview), must be logged into AON but does not need to be reported to EPA if recovered to a tank containing the same chemical or the Big Holding Tank (BHT), described in Section 6: Cleaning Solution System Operation, of this BMP.

1.6.2.2 Recovery and Remedial Measures

Any leak or spill of a Table 1 Material into a containable impervious area, as described in each Facility's Facility Report and identified in Figure 10 (Bartow), Figure 9 (New Wales), Figure 7 (Uncle Sam), and Figure 11 (Riverview), shall be recovered back to a tank containing the same chemical or input into the BHT via sump pump, vacuum truck, or other means or, if unrecoverable due to contamination or location of the spill, must be managed in compliance with the RCRA Requirements. This BMP does not relieve Mosaic of its obligation to comply with any other federal, state, or local laws applicable to such a leak or spill.

1.6.3 Other Areas:

1.6.3.1 Reporting

Any leak or spill of a Table 1 Material that is not contained within a non-segregable area or a containable impervious area, as described in each Facility's Facility Report, shall be reported pursuant to the Consent Decree. This BMP does not relieve Mosaic of its obligation to comply

with any other federal, state, or local laws applicable to such a leak or spill.

1.6.3.2 Remedial Measures

The cleanup of leaks or spills of a Table 1 Material shall be implemented in compliance with the Consent Decree. This BMP does not relieve Mosaic of its obligation to comply with any other federal, state, or local laws applicable to such a leak or spill.

1.7 Production Department Responsibilities

The Phosphoric Acid Production Department personnel shall be responsible for troubleshooting and correcting process upsets that result in a leak or a spill. The operator covering the plant at which the upset occurs shall notify his or her supervisor and begin taking immediate action. The appropriate manager or supervisor shall enter any leak or spill in AON.

1.8 Maintenance Department Responsibilities

The Maintenance Department personnel will be responsible for repairs and maintenance to faulty equipment. If the leak or spill is the result of a mechanical failure, the appropriate operations personnel shall notify the Maintenance Department of the condition and a work order request for correction of the problem is initiated. The Maintenance Department shall be responsible for timely completion of leak repairs. Maintenance work requests and their status are tracked in a computerized maintenance management system (currently MAXIMO).

SECTION 2: PHOSPHORIC ACID PLANT CLEANING PROCEDURES

2.1 General

SACS, FSA, PACS, or FSACS are periodically used to wash lines, filters, or other equipment within the phosphoric acid plant, including evaporation and clarification. The primary purpose for continuing to use SACS is to recover sulfate value and offset the amount of virgin sulfuric acid used. The primary purpose for continuing to use FSA and FSACS is to recover FSA value. The primary purpose for using PACS is to recover P_2O_5 value. The recovery of these solutions will contribute to decreasing the total dissolved solids in the Process Wastewater ponds.

SACS, FSA, FSACS and PACS shall be managed as shown in Diagram 1: Big Holding Tank Cleaning Solution and Solids Management Plan**.** Following commencement of operations of the Big Holding Tank (BHT), no SACS or PACS shall be placed into the Phosphogypsum Stack System, other than indirectly via the approved uses below. SACS PACS, FSA and FSACS shall be routed to the BHT (described in Section 7: Minimization of Operational Phosphoric Acid Inputs, of this Appendix) for consumption in the phosphoric acid plant so the BHT Effluent's value can be realized through the following uses described in each Facility's Facility Report:

1. Added to the filter prior to the final cake wash to inhibit scale formation. The filtrate from this wash is sent as recycle acid to the reactor (attack tank); or
2. Used as direct make up to the reactor attack tank; or
3. Added to the rock grinding circuit where it will ultimately end up in the slurry fed into the phosphoric acid reactor(s); or
4. If the P_2O_5 content is at least 8%, placed in the evaporator feed tank(s) for P_2O_5 recovery.

If for any reason the BHT Effluent is not recovered as outlined above, it must satisfy the RCRA land disposal restriction (LDR) standards prior to discharge to the Phosphogypsum Stack System (see Diagram 1).

Following commencement of operations of the BHT, if FSA has been transferred to BHT Recovery Units for sale or cleaning,[3] no FSA or FSACS shall be placed into the Phosphogypsum Stack System from BHT Recovery Units, other than indirectly via the following:

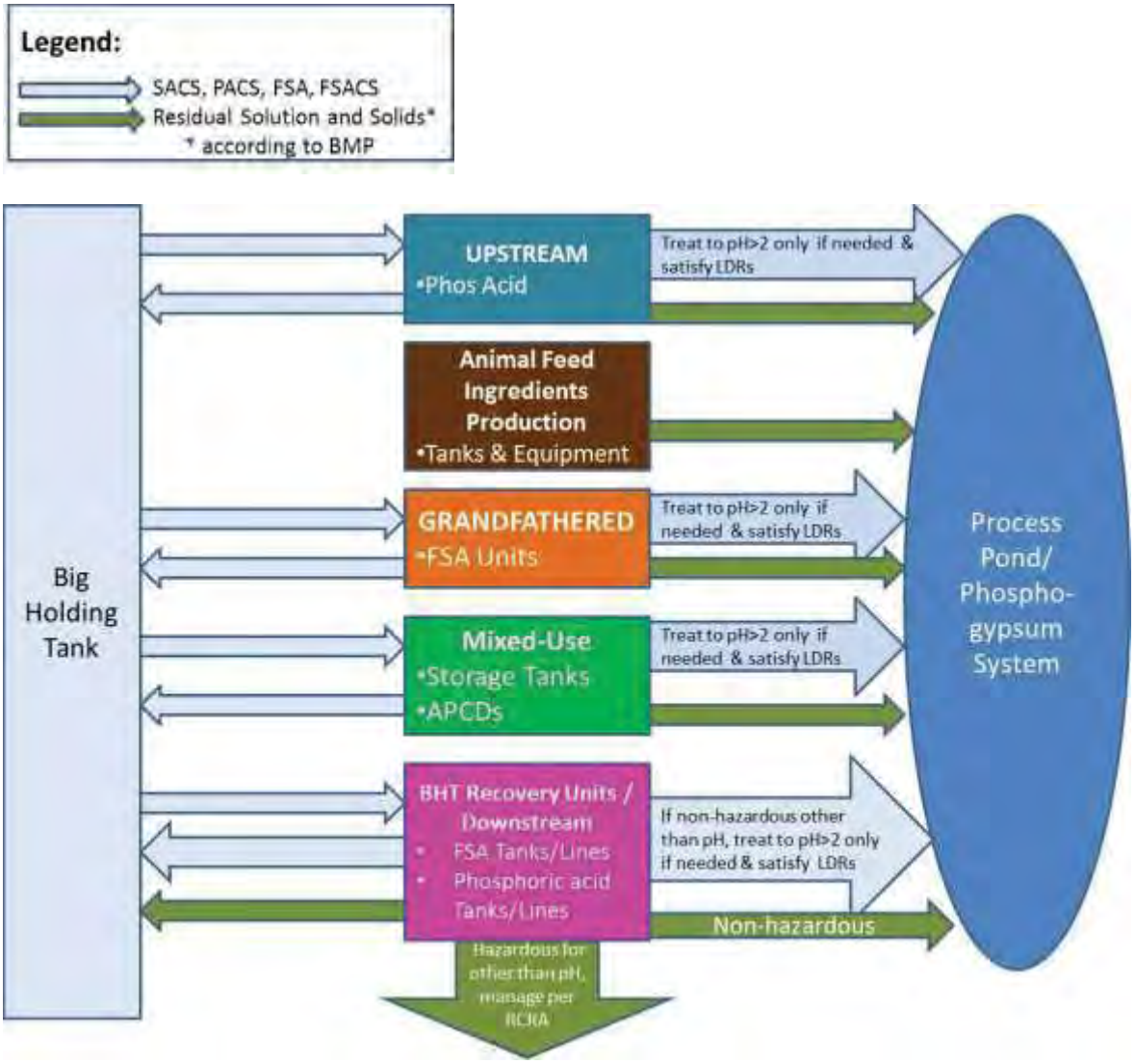
1. Returned to the evaporator feed tank(s) that directly feed FSA-producing evaporators when FSA is being recovered for sale and/or internal consumption; or
2. Sent to phosphoric acid reactors for reprocessing and recovery of FSA values; or
3. Sent to the BHT as described in Section VI (Compliance Projects) of the respective Facility's Facility Report for recovery of FSA values; or
4. Used as FSACS and then sent to the BHT for reprocessing and recovery of acid values.

If for any reason FSA or FSACS from BHT Recovery Units is not recovered as outlined above, it must

[3] FSA is not always recovered. When FSA is not being recovered for sale or cleaning, the gases pass through the Swift Tower to the barometric condenser, there is no recirculation of FSA through the Swift Tower, and therefore FSA is not produced. Even when FSA is not being recovered, the FSA Seal Tank remains an essential part of the Phosphoric Acid Evaporator by sealing the Swift Tower downleg.

satisfy the RCRA LDR standards prior to discharge to the Phosphogypsum Stack System (see Diagram 1).

Diagram 1: **Big Holding Tank Cleaning Solution and Solids Management Plan**[4]



2.2 Designations

The equipment and transfer lines designated as Upstream, Mixed Use, Grandfathered, BHT Recovery Units and GHT Recovery Units are shown in Table 1 of each Facility's Facility Report.

2.3 Line Cleaning – Upstream and Mixed-Use

All lines within the phosphoric acid plant may be washed with Phosphogypsum Stack System Wastewater, Process Wastewater, or a Non-Hazardous Aqueous Cleaning Solution (NHACS). Such cleaning solutions may be circulated through the lines and filters and may be input to Upstream

[4] FSA is not part of the New Wales process.

Operations or sent to the Phosphogypsum Stack System.

When SACS, PACS, or FSACS is used to clean lines and equipment, the cleaning solution shall be managed as shown in Diagram 1.

2.4 Evaporator Cleaning – Upstream and Grandfathered

Evaporators (including Swift Tower and FSA Seal Tank, if applicable) shall be washed using the following procedure. Prior to the wash, evaporators shall be drained of phosphoric acid; the acid shall be recovered in the phosphoric acid production process. The wash shall be performed with hot cleaning solution, typically condensate, Phosphogypsum Stack System Wastewater, Process Wastewater, SACS, or FSACS. The cleaning solution is circulated through the evaporator and various lines that require cleaning. All SACS, PACS, or FSACS shall be managed as shown in Diagram 1.

Note: If Phosphogypsum Stack System Wastewater, Process Wastewater, or NHACS is used, the cleaning solution(s) may be input into Upstream Operations or sent to the Phosphogypsum Stack System.

2.5 Phosphoric Acid Tank and Equipment Cleaning – Upstream, Mixed-Use and Grandfathered

The following general steps shall be used in cleaning of units that are part of Upstream Operations, Mixed-Use Units, or Grandfathered Units, or phosphoric acid tanks in the Phosphoric Acid Plant. The tanks shall be emptied by recovering as much phosphoric acid and as many solids as possible back into the phosphoric acid production process. The tanks shall then be washed with a cleaning solution, including at times SACS. High pressure cleaning with NHACS or other mechanical means may be used to remove hard phosphogypsum scale and buildup or to strip rubber from the tank. Solids from these units may be transferred to the Phosphogypsum Stack System. If Phosphogypsum Stack System Wastewater, Process Wastewater or NHACS is used to clean these tanks, such cleaning solutions may be input to Upstream Operations or sent to the Phosphogypsum Stack System. SACS, PACS, and FSACS shall be managed as shown in Diagram 1.

2.6 Phosphoric Acid Tank and Equipment Cleaning – BHT Recovery Units

Following commencement of operations of the BHT, the following general steps shall be used in cleaning of phosphoric acid tanks designated as BHT Recovery Units. The tanks shall be emptied by recovering as much phosphoric acid and as many solids as possible back into the phosphoric acid production process. The tanks shall then be washed with a cleaning solution (SACS, PACS, FSACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS). Liquids (including entrained solids) will be recovered to the BHT. Solids that are removed with high pressure cleaning with NHACS or by other mechanical means will be dewatered. The liquid portion of the dewatered solids will be recovered to the BHT. If the dewatered solids are non-hazardous, they will be transferred to the Phosphogypsum Stack System. If they are hazardous, they will be handled in compliance with the RCRA Requirements.

2.7 BHT/Pump Tank Cleaning – BHT Recovery Units

Following commencement of operations of the BHT, the following general steps shall be used in cleaning of BHT(s) or any pump tanks installed with the project for collecting cleaning solutions prior to returning to BHT. The tank(s) shall be emptied by recovering as much liquid and as many solids as possible back into the BHT or a backup BHT. The tank(s) shall then be washed with a cleaning solution (SACS, PACS, FSACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS) and the wash solution sent to the available BHT.

Liquids (including entrained solids) will be recovered to the available BHT. Solids that are removed with high pressure cleaning with NHACS or by other mechanical means will be dewatered. The liquid portion of the dewatered solids will be recovered to the available BHT. If the dewatered solids are non-hazardous, they will be transferred to the Phosphogypsum Stack System. If they are hazardous, they will be handled in compliance with the RCRA Requirements.

2.8 FSA Tank and Equipment Cleaning: BHT Recovery Units

Following commencement of operations of the BHT, the following procedure shall be used for cleaning FSA tanks designated as BHT Recovery Units in a Facility's Facility Report. Transfer as much acid as possible from the tank into an available FSA tank. Wash out the remaining solids in the tank using NHACS. Liquids (including entrained solids) will be recovered to the available BHT. Solids that are removed with high pressure cleaning with NHACS or by other mechanical means will be dewatered. The liquid portion of the dewatered solids will be recovered to the available BHT. If the dewatered solids are non-hazardous, they will be transferred to the Phosphogypsum Stack System. If they are hazardous, they will be handled in compliance with the RCRA Requirements.

2.9 Rotating Pan Filter Cleaning

An aqueous cleaning solution is used to wash filter pans. High pressure cleaning with freshwater, aqueous cleaning solution or mechanical equipment may be used to remove hard phosphogypsum scale and buildup. When Phosphogypsum Stack System Wastewater, Process Wastewater or NHACS is used to clean the filter pans, such cleaning solutions may be input to Upstream Operations or sent to the Phosphogypsum Stack System. If SACS, PACS, or FSACS are used to wash filter pans, such solutions shall be sent to the BHT. Phosphogypsum solids removed by high pressure cleaning with NHACS or other mechanical means shall be transferred to the Phosphogypsum Stack System.

2.10 Phosphoric Acid Reactor (Attack Tank) Cleaning

The following general steps shall be used in the cleaning of phosphoric acid attack tanks (phosphoric acid reactors). Empty the attack tank by recovering phosphoric acid and solids back to the process. The attack tank may then be washed with a cleaning solution. High pressure cleaning with NHACS or other mechanical means may be used to remove hard phosphogypsum scale and buildup. Solids removed using Phosphogypsum Stack System Wastewater, Process Wastewater or NHACS or by mechanical means shall be transferred to the Phosphogypsum Stack System. If Phosphogypsum Stack System Wastewater, Process Wastewater, or NHACS is used to clean the attack tank, cleaning solutions may be input to Upstream Operations or sent to the Phosphogypsum Stack System. If SACS, PACS, or FSACS is used to clean the attack tank, such solutions shall be sent to the BHT.

2.11 Plant Wash Down

Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS may be used for washing the floors, building, equipment, etc. in the Phosphoric Acid Plants' non-segregable and containable impervious areas as described in the Facility's Facility Report and returned to the Phosphogypsum Stack System or the Phosphoric Acid Plant.

2.12 Dewatering Areas - Upstream, Mixed Use and Grandfathered Units

Dewatering areas are used for mechanically removing solids from units designated as part of Upstream Operations or as Mixed Use or Grandfathered Units removed from the Phosphoric Acid plant, such as pipes, pumps, filter pans, etc. during repair, maintenance, or turnaround. Solids removal is performed with high pressure cleaning with NHACS or by other mechanical means. The solids and the liquids are discharged to the Phosphogypsum Stack System. The equipment is either returned to the plant or disposed of in compliance with applicable law. Equipment from Granulation cannot be cleaned in this area.

2.13 Dewatering Areas – BHT Recovery Units

Dewatering areas are used for mechanically removing solids from units designated as BHT Recovery Units such as pipes, pumps, etc. during repair, maintenance, or turnaround. Solids removal is performed with high pressure cleaning with NHACS or by other mechanical means. Following commencement of operations of the BHT, the liquid portion of the dewatered solids will be recovered to the BHT. If non-hazardous, the dewatered solids are discharged to the Phosphogypsum Stack System. If hazardous, they will be handled in compliance with the RCRA Requirements. The equipment is either returned to the plant or disposed of in compliance with applicable law.

SECTION 3: GRANULATION PLANTS CLEANING PROCEDURES[5]

3.1 General

Mosaic's intent is to minimize losses and to conserve and recover resources whenever feasible. Solutions and solids generated from cleaning granulation equipment other than BHT Recovery Units as described in the Facility's Facility Report shall either be recovered in the granulation process or characterized to determine if they are hazardous under the RCRA Requirements for corrosivity (pH ≤ 2 or pH ≥ 12.5) and/or toxicity (Table 2). If the materials are not recovered to the granulation process and are hazardous, they shall be handled according to the RCRA Requirements. If these materials are not recovered to the granulation process and are non-hazardous, they can be discharged to the Phosphogypsum Stack System.

3.2 Line Cleaning

All lines within the granulation plant shall be washed with an aqueous cleaning solution (i.e., Process Wastewater, Phosphogypsum Stack Water, NHACS, SACS, PACS, FSACS, FSA or GHT Effluent). All cleaning solutions that enter the boundary of the granulation plant shall be handled according to Section 3.1: General, of this BMP.

3.3 Phosphoric Acid Tank Cleaning (BHT Recovery Units)

Following commencement of operations of the BHT, the following general steps shall be used in the cleaning of any phosphoric acid storage tank in the granulation plants (BHT Recovery Units). Empty the tank by feeding the remaining acid to the Granulation process or recovering phosphoric acid back to the phosphoric acid clarification process or another phosphoric acid tank within the Granulation area. Wash the tank with an aqueous cleaning solution (i.e., Process Wastewater, Phosphogypsum Stack Water, NHACS, SACS, PACS, FSACS, FSA or BHT Effluent) if needed. Fill the tank with cleaning solution and recirculate to facilitate cleaning for an appropriate period of time (typically 12-48 hours), until the scale is adequately removed. The wash may be repeated multiple times until adequately cleaned, and the wash solution (including entrained solids) sent to the BHT. Solids that are removed with high pressure cleaning with NHACS or by other mechanical means will be dewatered. The liquid portion of the dewatered solids will be recovered to the BHT. If the dewatered solids are non-hazardous, they will be transferred to the Phosphogypsum Stack System. If they are hazardous, they will be handled in compliance with the RCRA Requirements.

At Bartow, ammonia may be added as a scale softening agent to DAP Pond water, Phosphogypsum Stack System Wastewater, or Process Wastewater and the resulting cleaning solution is used to clean phosphoric acid storage tanks in the granulation plant. This non-hazardous spent wash solution shall only be recovered to the DAP process pond.

3.4 Acid Scrubber, Reactor and Tailgas Scrubber System Cleaning - GHT Recovery Units

Granulation plant scrubbers and reactors are cleaned with a cleaning solution based on the frequency of scale buildup. After recovering scrubber liquid to the process, the scrubbers and reactors shall be filled and recirculated with the cleaning solution until scale is adequately removed. SACS is normally

[5] This Section applies only to the Bartow, Riverview and New Wales Facilities.

used as a cleaning solution, but Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS (including water from the DAP Pond or fresh water) can be used. Following commencement of operations of the Granular Holding Tank (GHT), the resulting stream shall be sent to the GHT. High pressure cleaning with NHACS or other mechanical means may be used to remove hard scale and buildup or to strip rubber from the equipment. Solids that are removed from the Tailgas Scrubber system will be characterized and handled in compliance with the RCRA Requirements.

3.5 Granulation Dry Side Equipment Cleaning - GHT Recovery Units

The wash solution, such as Process Wastewater, DAP Pond water, Phosphogypsum Stack Wastewater, or NHACS is collected either in the Acid Scrubber or the Reactor and a continuous flow is sent to the Dry Side Equipment, such as the granulator, dryer, cooler, elevators, screens, milling equipment and the associated piping. The cooler may be washed as part of the Dry Side Equipment wash or separately. High pressure cleaning with NHACS or other mechanical means may be used to remove hard scale. Following commencement of operations of the GHT, liquids (including entrained solids) will be recovered to the GHT. Solids that are removed with high pressure cleaning or mechanical means will be dewatered, if needed. Following commencement of operations of the GHT, any liquid portion of these solids will be recovered to the GHT. The solids will be recovered back to the granulation process through either the dry reclaim system or the re-slurry system.

3.6 GHT Cleaning and Non-Routine Transfer Situations

3.6.1 GHT Cleaning

Following commencement of operations of the GHT, the following general steps shall be used in cleaning of the GHT(s) and the Riverview and New Wales GHT intermediate tanks. The tanks shall be emptied by recovering as much liquid (with entrained solids) as possible back into the granulation process and/or the BHT. Any residual volume that is hazardous only for RCRA corrosivity (pH $\leq$2) and cannot be recovered into the granulation process may be transferred to the BHT not more than two times per calendar year. The GHT shall then be washed with a cleaning solution (SACS, PACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS). If the wash solution is hazardous only for RCRA corrosivity (pH $\leq$2), it may be transferred to the BHT; not more than two times per calendar year. If the solution is non-hazardous, it can be transferred to the BHT or sent to the Phosphogypsum Stack System.

3.6.2 Non-Routine Situations

In non-routine situations, such as mechanical failure in the Granulation Plant, unexpected plant outages, electrical power failures, hurricanes or similar weather events or unexpected problems during startups, Mosaic may transfer GHT Effluent that is hazardous only for RCRA corrosivity (pH $\leq$2) from the GHT to the BHT(s) as described in each Facility's Facility Report.

3.7 Wash Down

NHACS (including fresh water or DAP Pond water) may be used for wash down of the floors, conveyor belts, and other equipment within the granulation plant. If non-hazardous, the resulting streams may be transferred to the Phosphogypsum Stack System or the DAP Pond. If the resulting streams are hazardous, they will be recovered to the GHT or characterized and handled in compliance with the RCRA Requirements.

SACS, PACS, FSA, Process Wastewater, Phosphogypsum Stack System Water or FSACS may not be used to wash down floors.

SECTION 4: GRANULATION PLANTS LEAK/SPILL DETECTION SYSTEMS AND RESPONSE PROCEDURES[6]

4.1 General

The purpose of this Section is to assist Mosaic's operators with the appropriate management of leaks and spills of phosphoric acid and sulfuric acid in the Granulation Plants.

Leaks and spills of a Table 1 Material to containment areas in the Granulation Plant shall be captured and returned to the process as soon as practicable. If recovery is not possible, they shall be treated in an appropriate vessel so that they no longer exhibit hazardous characteristics and meet the LDR standards and may be discharged to the Phosphogypsum Stack System. If treatment is not possible, they shall be appropriately managed in compliance with the RCRA Requirements, as well as the specific procedures set forth in this BMP.

4.2 Release Reporting

Mosaic personnel are responsible for notifying the appropriate personnel immediately upon the identification of a leak or spill of a Table 1 Material pursuant to this BMP. This BMP does not relieve Mosaic of its obligation to comply with any federal, state, or local laws applicable to such a leak or spill.

4.3 Inspections

Operators shall inspect the Granulation Plants in the course of their normal rounds, a minimum of twice per shift and document the inspections. The operator shall correct any leaks from valves, flanges, pumps, or any other equipment that can be readily and safely corrected at the time of discovery. The incident shall be recorded in AON. Operator and supervisor responsibilities associated with discovery of a spill or leak is outlined in this BMP.

4.4 Recording/Tracking

When plant personnel identify a leak, spill or process upset resulting in a release, appropriate actions shall be taken as outlined in this BMP. A record of the incident shall be entered into AON within 24 hours of the incident. Supervisors shall be trained to enter incidents into AON. AON tracks specific information including date and time of release, date and time of report, a description of the incident, volume of the material, type of material, and additional supporting information. The system generates emails to specific personnel based on the severity and location of the incident.

[6] This Section applies only to the Bartow, Riverview and New Wales Facilities.

4.5 Reporting, Recovery and Remedial Measures

4.5.1 Containable Impervious Areas of the Granulation Plants

4.5.1.1 Reporting

Any leak or spill of a Table 1 Material to containable impervious areas as described in each Facility's Facility Report and identified in Figure 11 (Bartow), Figure 10 (New Wales), and Figure 12 (Riverview) must be logged into AON but does not need to be reported to EPA or the States if recovered to a tank containing the same chemical, the BHT or the GHT, as described below.

4.5.1.2 Recovery and Remedial Measures

Any leak or spill of a Table 1 Material to containable impervious areas as described in each Facility's Facility Report and identified in Figure 11 (Bartow), Figure 10 (New Wales), and Figure 12 (Riverview) shall be recovered back to the appropriate process vessel containing in the same chemical or input into the BHT or GHT, as described in each Facility's Facility Report.

If unrecoverable for any reason, the leak or spill must be managed in compliance with the RCRA Requirements. This BMP does not relieve Mosaic of its obligation to comply with any other federal, state, or local laws applicable to such a leak or spill.

4.5.2 Other Areas

4.5.2.1 Reporting

Mosaic personnel are responsible for notifying the appropriate personnel immediately upon identification of a leak or spill, except for minor leaks or spills that already have been remedied.

Any leak or spill of Table 1 Materials that is not contained within a containable impervious area as described in each Facility's Facility Report must be recorded in AON and reported pursuant to the Consent Decree. This BMP does not relieve Mosaic of its obligation to comply with any other federal, state, or local laws applicable to such a leak or spill. AON shall be used to record such a spill or leak and to track immediate actions taken to address the leak or spill.

4.5.2.2 Remedial Measures

The cleanup of Table 1 Materials shall be administered in compliance with the Consent Decree. This BMP does not relieve Mosaic of its obligation to comply with any other federal, state, or local laws applicable to such a leak or spill.

4.6 Production Department Responsibilities

The Granulation Production Department personnel shall be responsible for troubleshooting and correcting process upsets. The employee who discovers the upset shall execute his or her responsibilities as outlined in this BMP. The operator covering the plant at which the leak, spill or upset occurred shall notify his or her supervisor and begin taking immediate action. The appropriate manager or supervisor shall enter the incident in AON.

4.7 Maintenance Department Responsibilities

The Maintenance Department personnel will be responsible for repairs and maintenance to faulty equipment. If the leak or spill is the result of a mechanical failure, the appropriate operations personnel shall notify the Maintenance Department of the condition and shall initiate a work order request for correction of the problem. The Maintenance Department shall be responsible for timely completion of leak repairs. Maintenance work requests and their status are tracked in a computerized maintenance management system (currently MAXIMO). When the Maintenance Department completes the repairs, the appropriate operations personnel shall be notified.

SECTION 5: GRANULATION PLANT SECONDARY SCRUBBERS[7]

The granulation plants utilize secondary scrubbers. These secondary scrubbers are utilized on the reactor, granulator, dryer, equipment, and/or cooler scrubbing circuits for fluoride scrubbing. The New Wales site utilizes once through Process Wastewater as a scrubbing medium. Pursuant to the Consent Decree, the New Wales granulation plants shall eliminate the use of Process Wastewater as a scrubber medium. Mosaic may continue to discharge Process Wastewater used in the aforementioned scrubbers within the New Wales granulation plants to the Phosphogypsum Stack System until the referenced projects described in Appendix 6 (Project Narrative & Compliance Schedules) of the Consent Decree are completed.

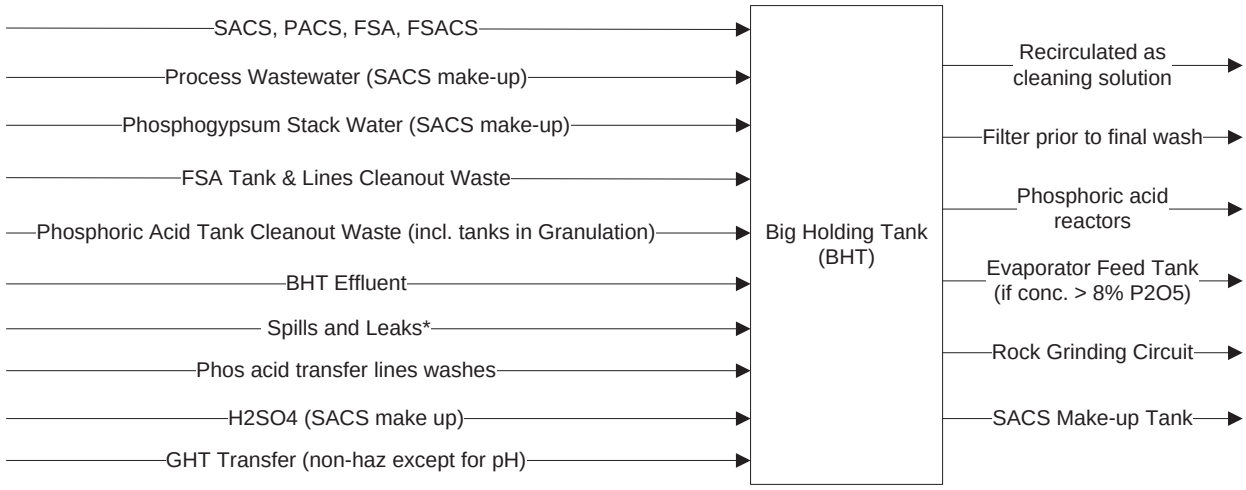
SECTION 6: CLEANING SOLUTION SYSTEM OPERATION

6.1 Phosphoric Acid Plant Areas

The cleaning solution system shall be composed of a containment system to capture and return cleaning solution streams from Upstream, Mixed-Use, Grandfathered, and BHT Recovery Units, including SACS, PACS, FSA, and FSACS to the BHT(s). Mosaic also may recover spills and leaks of phosphoric acid, sulfuric acid, FSA, SACS, PACS, FSACS, or BHT Effluent; or NHACS, Process Wastewater, Phosphogypsum Stack System Wastewater, when mixed with any of the preceding solutions due to spills, leaks, or cleaning of leaks and spills, in containable impervious areas to the BHT(s). The BHT(s) shall in turn return the spills, leaks, and cleaning solution streams to the phosphoric acid production process, where their values can be realized through the methods outlined in Section 2: Phosphoric Acid Plant Cleaning Procedures, of this BMP. All inputs to and effluents from the BHT are illustrated in Diagram 2.

[7] This Section applies only to the Bartow, Riverview and New Wales Facilities.

Diagram 2: BHT Inputs and Effluents[8]



* Spills and Leaks include: P2O5, H2SO4, FSA and mixtures of the proceeding with Process Wastewater, Phosphogypsum Stack Water and NHACS

6.2 Granulation Areas[9]

The granulation containment pads shall be designed to collect rainfall, spills, leaks, and cleaning solutions within plant areas. The collection sumps for these containment pads shall pump to the granulation plant scrubbers, re-slurry tank, GHT or, if non-hazardous, may be discharged to a permitted National Pollutant Discharge Elimination System (NPDES) outfall. The sumps will be designed with pH probes that will allow storm water run-off during high rainfall to be diverted to the Phosphogypsum Stack System if pH > 2.0 or to a permitted NPDES outfall. This will eliminate excessive rain water getting into the GHT, diluting it and also leading to the tank level being high. The granulation plant acid scrubbers and re-slurry tank are designed to recover fertilizer materials, product and raw materials for consumption in the granulation process.

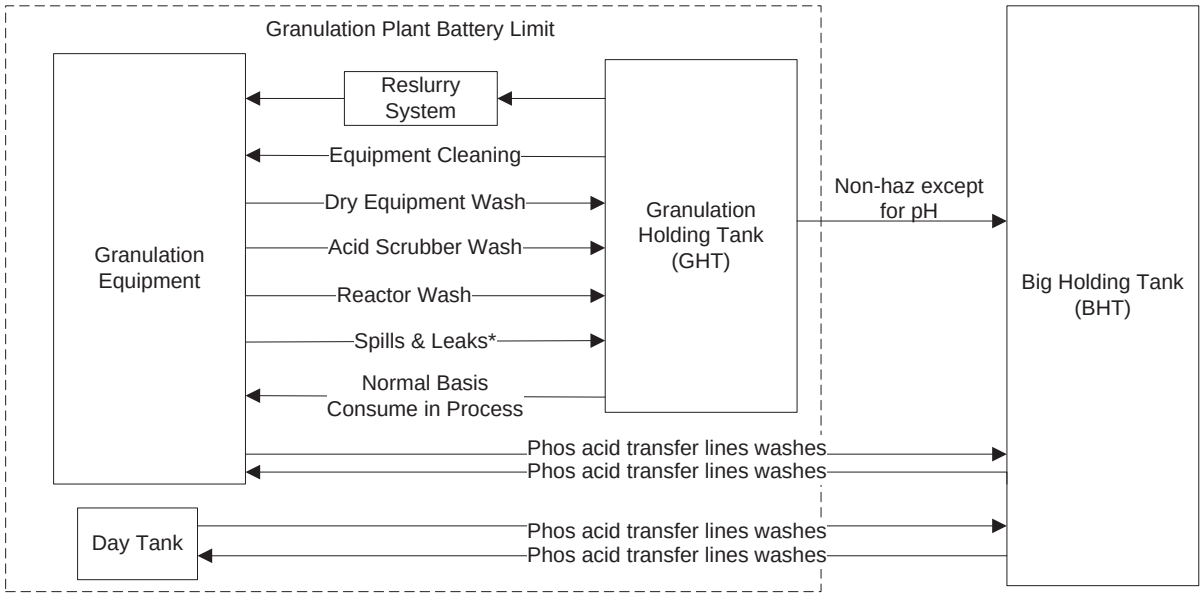
Cleaning solutions in the Granulation area (except for cleaning solutions from BHT Recovery Units) shall be managed as follows:

- If the resulting stream from the cleaning process is non-hazardous, the solution may be discharged directly to the Phosphogypsum Stack System or recovered in the granulation process via the GHT.
- If the resulting stream is hazardous, then the resulting solution shall be recovered in the granulation process via the GHT for recovery of product value.

Mosaic may transfer cleaning solution from GHT to BHT as specified in the Facilities' Facility Reports.

[8] New Wales does not have a "FSA Tank & Lines Cleanout Waste" input.
[9] This paragraph applies only to the Bartow, Riverview and New Wales Facilities.

Diagram 3: GHT Inputs and Effluents



* Spills and Leaks include: P2O5, H2SO4 and mixtures of the proceeding with Process Wastewater, Phosphogypsum Stack Water and NHACS

Permitted Discharge

This Section does not relieve Mosaic of its obligation to comply with any National Pollutant Discharge Elimination System (NPDES) permit.

SECTION 7: MINIMIZATION OF OPERATIONAL PHOSPHORIC ACID INPUTS

7.1 Background

During normal operation of the Phosphoric Acid Plants, various activities may result in the operational input of phosphoric acid to impervious areas within the battery limits of the Phosphoric Acid Plants or to the Phosphogypsum Stack System. These activities include sample collection, slide gate valve operation, clearing plugged piping or process equipment, and similar routine operations. Operators shall minimize the volume of such phosphoric acid inputs by releasing only the amount of acid necessary in order to accomplish the task and recover acid loss where practicable. Intermittent operational inputs of phosphoric acid to impervious areas or the Phosphogypsum Stack System are unavoidable and shall not be considered malfunctions, leaks, or spills, unless the volume from one of these inputs to the Phosphogypsum Stack System exceeds the BMP Actionable Volume (Table 1). Any continuing release resulting from these activities may indicate the need for maintenance activity and shall be entered into AON and the computerized maintenance management system (currently MAXIMO) for correction.

7.2 Operational Input Minimization

7.2.1 Sample Collection

Samples of phosphoric acid or reactor slurry collected for purposes of plant process control shall be returned to the process.

7.2.2 Clarifier/Valve/Line Operational Releases

Operational inputs of phosphoric acid from clarifier unplugging, valve operation and line unplugging shall be minimized to the extent practicable, releasing only the amount of acid necessary out of the primary containment area in order to accomplish the task and recovery where practicable.

7.3 Response

7.3.1 Releases Outside Containment Areas

All reasonable measures shall be taken to avoid releases of phosphoric acid outside of plant containment areas. This BMP does not relieve Mosaic of its obligation to comply with any federal, state, or local laws applicable to such a release.

7.3.2 Emergency Response

Mosaic's Spill Reporting Policy and Procedure also contains guidance for the management of environmental spills or releases that may require emergency response measures.

SECTION 8: CONTAINMENT INTEGRITY PLAN

8.1 Background

The mechanical integrity of new, upgraded, or existing containment systems for phosphoric acid shall be managed in accordance with Mosaic's Liquid Storage Tanks, Secondary and Impermeable Containment Program. The most current versions of these specifications shall be maintained by the Engineering Document Control Department.

8.2 Tanks

The mechanical integrity of phosphoric acid tanks shall be managed in accordance with the current version of Mosaic's Liquid Storage Tanks, Secondary and Impermeable Containment Program.

Phosphoric acid storage tanks that are regulated by Florida Department of Environmental Protection (FAC § 62-762) shall be inventoried. Phosphoric acid storage tanks that are not regulated by Florida Department of Environmental Protection (FAC § 62-762) or Louisiana Department of Environmental Quality shall be inventoried and inspected in accordance with Mosaic's Liquid Storage Tanks, Secondary and Impermeable Containment Program.

8.3 Concrete Acid Pads

The mechanical integrity of concrete acid pad containment systems for phosphoric acid leaks or spills shall be inspected and evaluated annually in accordance with requirements contained in Mosaic's Liquid Storage Tanks, Secondary and Impermeable Containment Program.

Mosaic shall be responsible for conducting annual inspections of concrete acid pads in the Phosphoric Acid and Granulation Plant areas. Visual inspection will be for the following indicators: erosion/holes, protective liner damage and/or floor drainage irregularities. Inspection results shall be documented in a report with recommendations, reviewed with appropriate management, and implemented as needed.

When Mosaic determines it is necessary to replace or partially replace concrete acid pads in the Phosphoric Acid and Granulation Plant areas, under-slab liners shall be installed in the affected area.

8.4 Sumps and Ditches

The mechanical integrity of sumps and ditches used in washing circuits and collection of phosphoric acid leaks or spills shall be managed as specified in Mosaic's Liquid Storage Tanks and Secondary Containment Program.

Mosaic shall be responsible for conducting inspections of sumps and ditches whenever major plant outages or turnarounds in the phosphoric acid and granulation plant areas allow for the sumps to be drained (approximately once every 5 years). Inspection results shall be documented in a report with recommendations and reviewed with appropriate management and implemented as needed.

SECTION 9: BMP PERFORMANCE STANDARDS

9.1 Performance Criteria

The goals of the BMPs are listed in the Introduction of this Appendix. Mosaic shall develop appropriate performance criteria consistent with the BMPs herein for the purpose of evaluating trends and improving performance. The performance criteria include progress review of the construction and utilization of the projects in Appendix 6 (Project Narrative & Compliance Schedules) to the Consent Decree, BMP training, and implementation of the procedures set forth herein.

For two years from the Effective Date of the CD, semi-annual meetings will be held with the State Agency and EPA to review BMP performance. Meetings will occur annually after the first two years and may be adjusted based on the completion of the implementation schedule.

9.2 Performance Criteria for Spill and Leak Detection

An initial data collection period of 12 months will be used to establish baseline performance criteria for spills, leaks, and other releases. Mosaic will monitor the conductivity probes at Bartow, New Wales, and Riverview for a year after June 30, 2015 and will monitor the conductivity probes at Uncle Sam for a year after January 31, 2016. Once BMP performance criteria and a baseline are established, Mosaic shall review the criteria quarterly. Based upon the reviews, BMPs will be updated as warranted to minimize leaks, spills, and other releases. Mosaic shall initiate additional review of the BMP Program under the following circumstances:

- At any time during a calendar quarter when two or more leak or spill events of phosphoric acid, sulfuric acid or FSA into “non-segregable areas” at the same facility have occurred that exceed the quantity shown in Table 1: BMP Actionable Volumes (Table 1) in a rolling 24-hour period.

- At any time during a calendar quarter when two or more leak or spill events of phosphoric acid, sulfuric acid or FSA inside a “containable impervious area” at the same facility have occurred that exceed the quantity shown in Table 1: BMP Actionable Volumes (Table 1) in a rolling 24-hour period.

- At any time during a calendar quarter when two or more leak or spill events of phosphoric acid, sulfuric acid or FSA have occurred outside of non-segregable or containable impervious areas at the same facility that exceed the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Reportable Quantity.

9.3 Reporting/Auditing

Reporting shall be conducted pursuant to the Consent Decree and the aforementioned Performance Criteria.

SECTION 10: BMP TRAINING

10.1 Overview Training

An overview of BMP issues and procedures shall be included in the periodic environmental compliance training provided to all affected employees, such as the managers, superintendents, supervisors, operators, and maintenance personnel in the phosphoric acid, FSA, AFIP, and granulation plants.

10.2 Area Specific Employee Training

Employees within phosphoric acid, FSA, AFIP, and granulation plants shall receive initial training on RCRA and the Consent Decree, including the BMPs, through classes and materials developed by Mosaic. Employee training is part of project implementation and is found in Appendix 6 (Project Narrative & Compliance Schedules) to the Consent Decree. Detailed refresher training on the Consent Decree, including RCRA and the BMPs, shall be conducted for all affected employees every year. Updated training shall be provided as BMP projects are completed, and will commence within two months of establishing a baseline under Section 9.2, and if the BMP is modified. Records of training shall be maintained by the Training Department.

10.3 Contractors

The relevant portions of this BMP shall be incorporated into contractors' site-specific training where appropriate.

Attachment A: Tables

Table 1: BMP Actionable Volumes 26
Table 2: RCRA 8 Metals and Regulatory Limits 26

Table 1: BMP Actionable Volumes

Chemical	Concentration	Non-Segregable and Containable Impervious (gallons)
Phosphoric Acid	Less than 40%[10]	10,000
	Equal to or greater than 40%	5,000
PACS & SACS	5% P_2O_5 5% H_2SO_4	10,000
Sulfuric Acid	98% H_2SO_4	1,000
FSA & FSACS	23%; 15%; 5%	430

Table 2: RCRA 8 Metals and Regulatory Limits.

TCLP Metals	Toxicity Characteristic (TCLP, grab) (mg/L)	UTS for wastewater (mg/L)	UTS for non-wastewater (mg/L)
Arsenic	5.0	1.4	5.0
Barium	100	1.2	21
Cadmium	1.0	0.69	0.11
Chromium (total)	5.0	2.77	0.60
Lead	5.0	0.69	0.75
Mercury	0.2	0.15	0.025
Selenium	1.0	n/a	n/a
Silver	5.0	0.43	0.14

Note 1: UTS = Universal Treatment Standards (40 C.F.R. §268.48).
Note 2: The amount of total suspended solids (TSS) by weight in the sample must be determined in order to compare the UHC concentrations to the appropriate UTS. The waste stream is a "wastewater" if it contains less than 1% by weight TSS, and "non-wastewaters" contain TSS ≥1% by weight (defined in 40 C.F.R. §268.2(d) and (f)).
Reference: 40 C.F.R. §§261.24 & 268.48

[10] Excluding Process Wastewater and Phosphogypsum Stack Wastewater.

Attachment B: Conductivity Probes on Process Wastewater System

This Attachment addresses conductivity probes located in the outgoing process wastewater streams at the Phosphoric Acid Plants. It contains information on probe locations, alarm settings and maintenance.

Appendix 5
ATTACHMENT B:
Conductivity Probes on Process Wastewater System

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General

Conductivity probes continuously measure the conductivity of the Process Wastewater incoming and outgoing streams. The conductivity of the return Process Wastewater System streams are displayed on the operators' distributive control system, see Figure 1 and Figure 2 below as an example.

Figure 1: Example of Conductivity Trend Stored in the Data Historian PI

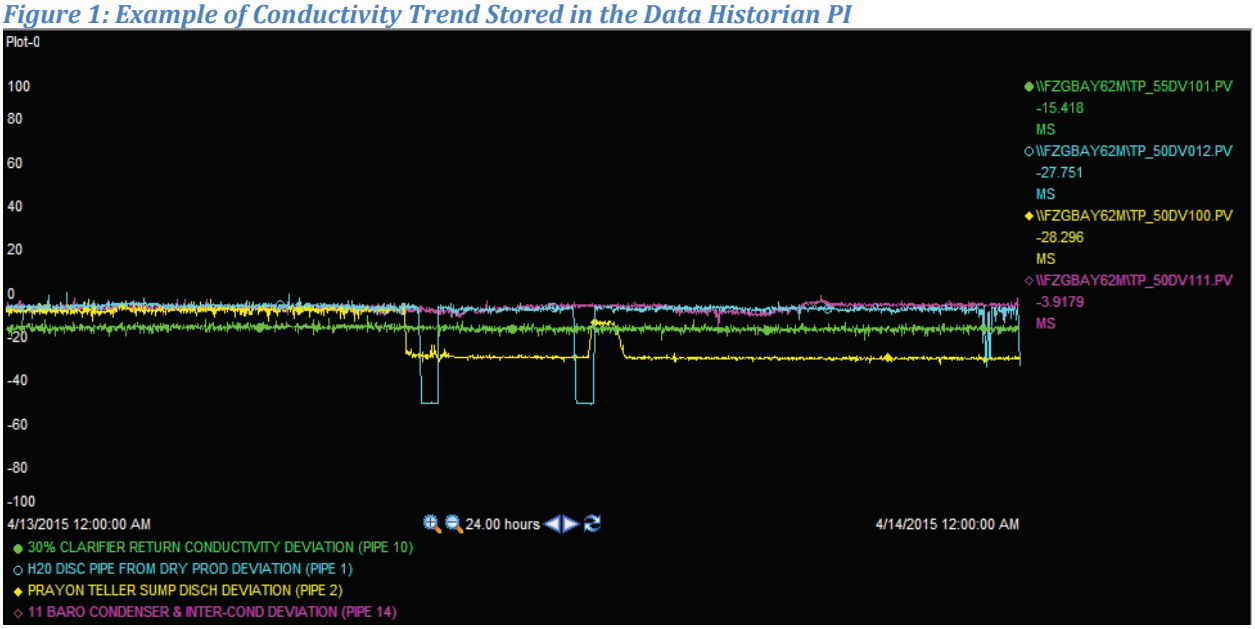


Figure 2: Example of Operator Monitoring Graphic

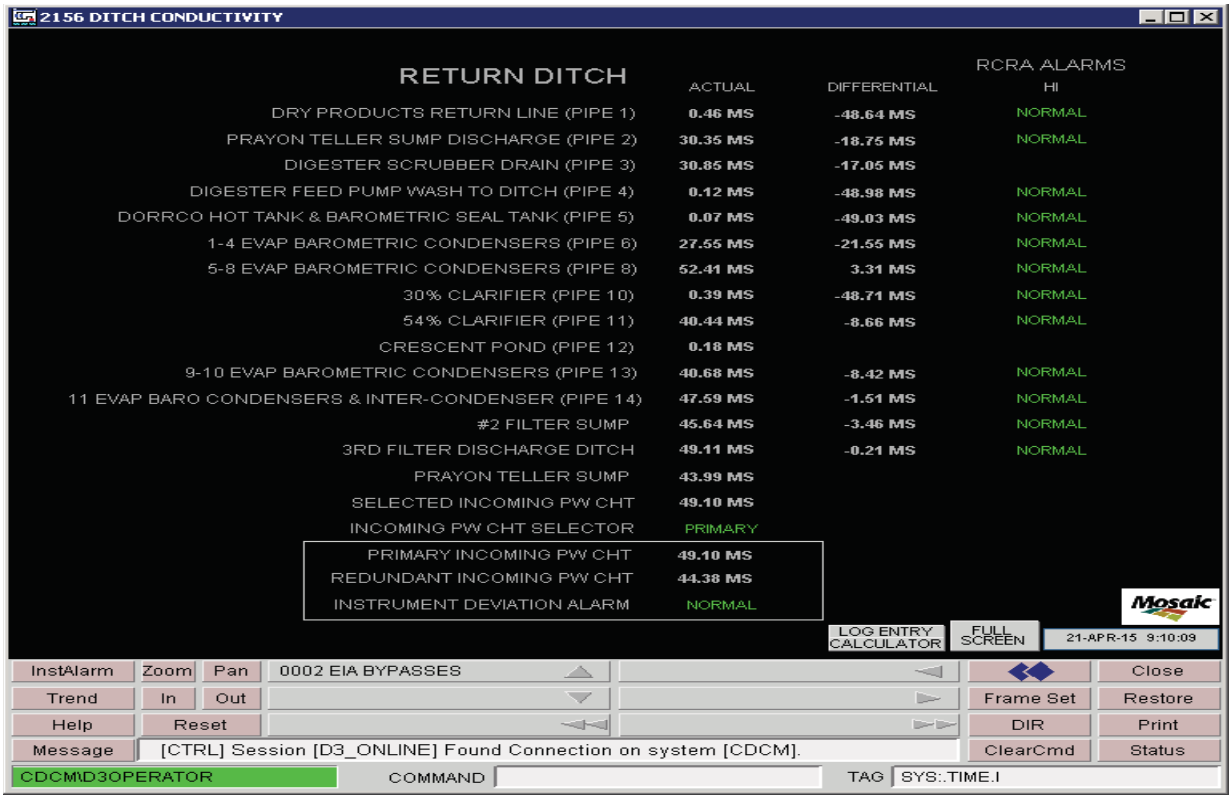
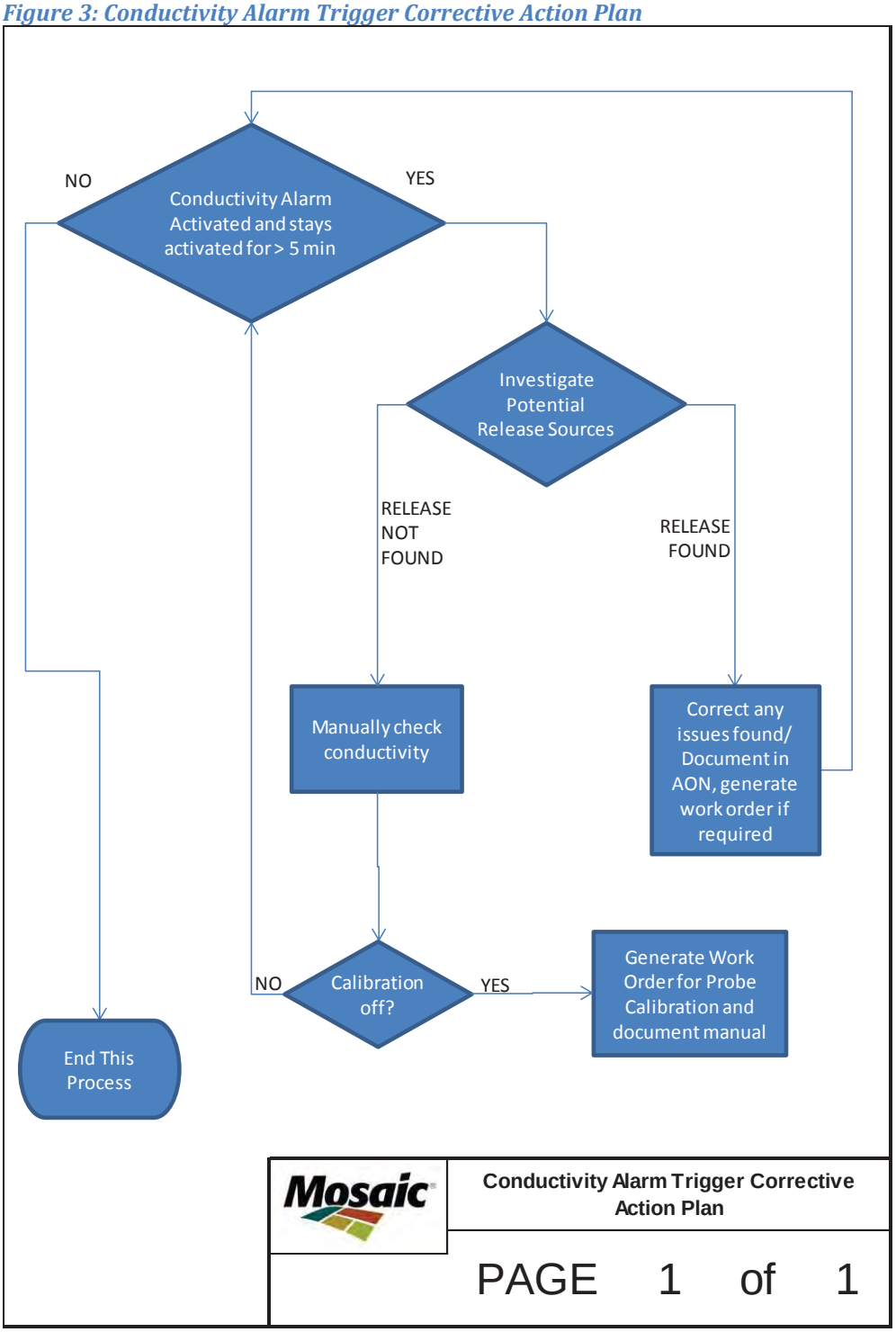
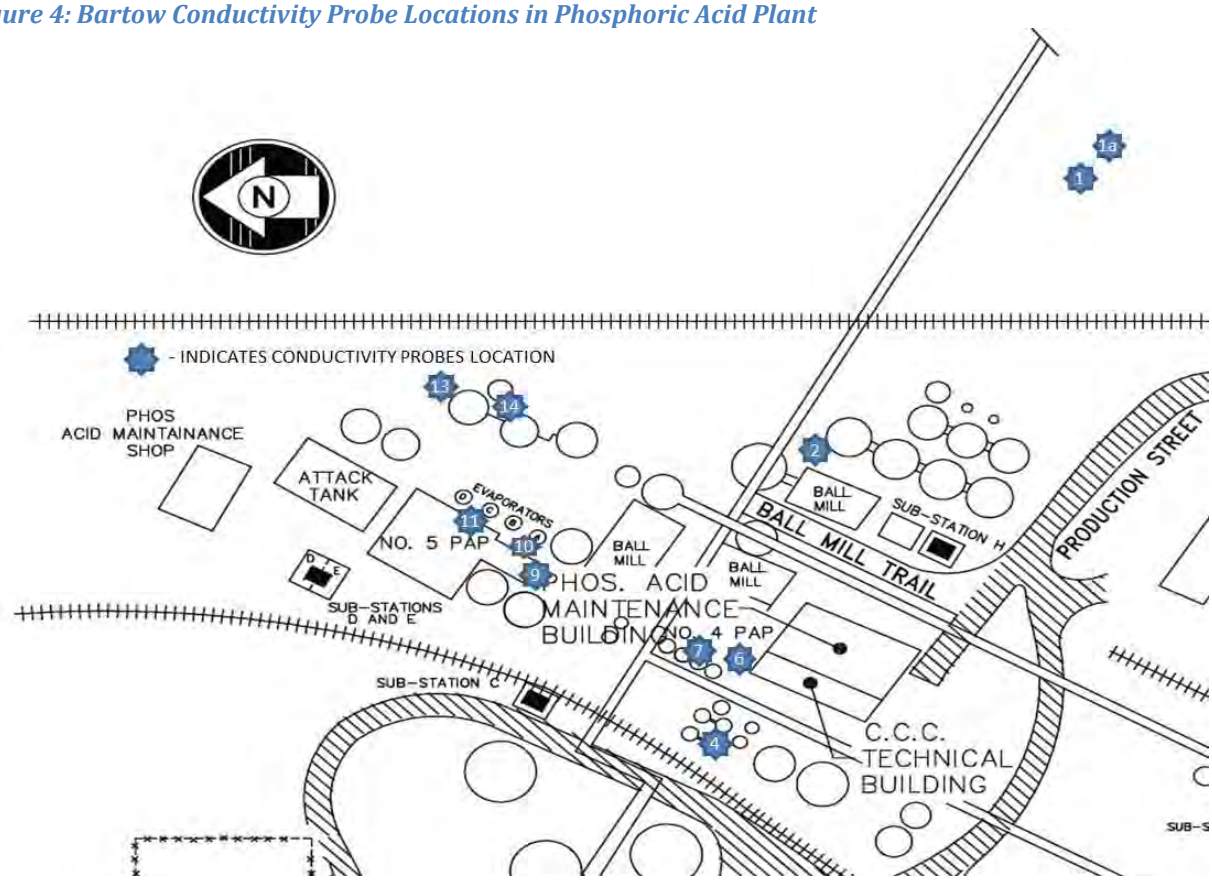


Figure 3: Conductivity Alarm Trigger Corrective Action Plan



Probe Locations and Targets

Figure 4: Bartow Conductivity Probe Locations in Phosphoric Acid Plant

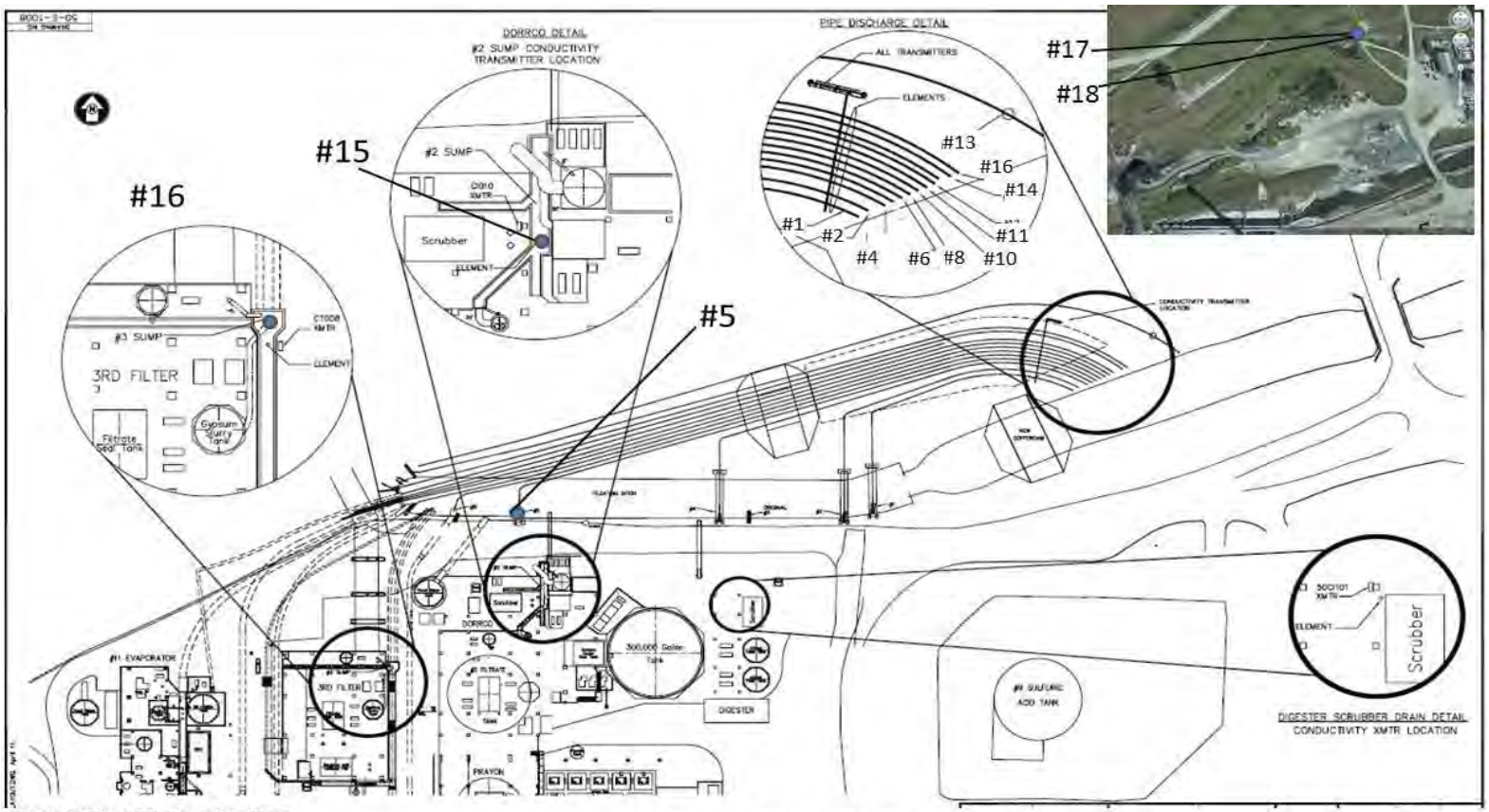


Probe No.	Name	Location Description
1	Incoming PW ditch	R1 Canal; brings process water to Phos Acid plant from Process Pond
1a	Redundant Incoming PW Ditch	R1 Canal; brings process water to Phos Acid plant from Process Pond
2	30% Area ditch	30% containment area sumps and wash boxes discharge
4	5-7 Hotwell	Hotwell for evaporators 5, 6 and 7
6	1 & 2 Hotwell	Hotwell for evaporators 1 & 2
7	3 & 4 Hotwell	Hotwell for evaporators 3 & 4
9	Mall ditch	Non-segregable areas around #3 and #5 Filters
10	A & B Hotwell	Hotwell for evaporators A & B
11	C & D Hotwell	Hotwell for evaporators C & D
13	#5 Ditch	Non- segregable area spills from Attack Tank U-Train
14	33 Area ditch	33 containment area sump and wash boxes discharge

Table 1: Bartow Conductivity Initial Alarm Limits (Differential)

Probe No.	Name	Alarm Trigger (millisiemens/cm)
1	Incoming PW ditch	No alarm
1a	Redundant Incoming PW ditch	No alarm
2	30% Area ditch	5
4	5-7 Hotwell	10
6	1 & 2 Hotwell	10
7	3 & 4 Hotwell	10
9	Mall ditch	15
10	A & B Hotwell	5
11	C & D Hotwell	5
13	#5 ditch	10
14	33 Area ditch	15

Figure 5: Riverview Conductivity Probe Locations in Phosphoric Acid Plant and Granulation



TRANSMITTER LEGEND

#1. Dry Products Return Line (pipe 1)
#2. Prayon Teller Sump Discharge (pipe 2)
#4. Digester Feed Pump Wash to Ditch (pipe 4)
#5. Dorrco Hot Tank & Barometric Seal Tank (pipe 5)
#6. 1-4 Evap Barometric Condensers (pipe 6)
#8. 5-8 Evap Barometric Condensers (pipe 8)
#10. 30% Clarifier (pipe 10)
#11. 54% Clarifier (pipe 11)
#13. 9-10 Evaps Barometric Condensers (pipe 13)
#14. 11 Evap Baro Condensers & Inter-Condenser (pipe 14)
#15. #2 Filter Sump
#16. 3rd Filter Discharge Ditch
#17. Incoming PW CHT
#18. Redundant Incoming PW CHT

Table 2: Riverview Conductivity Initial Alarm Limits (Differential)

Probe No.	Name	Location Description	Alarm Condition (milliSiemens/cm)
1	Dry Products Return Line (PIPE 1)	Dry Product Return Line	15
2	Prayon Teller Sump Discharge (PIPE 2)	Prayon Sump Discharge	15
4	Digester Feed Pump Wash to Ditch (PIPE 4)	Digester Feed Pumps Wash	15
5	Dorrco Hot Tank & Barometric Seal Tank (PIPE 5)	Dorrco Hot Tank & Barometric Seal Tank	5
6	1-4 Evap Barometric Condensers (PIPE 6)	Evaporator 1-4 Barometric Condensers Combined	5
8	5-8 Evap Barometric Condensers (PIPE 8)	Evaporator 5-8 Barometric Condensers Combined	10
10	30% Clarifier (PIPE 10)	30% Clarifier Wash Return	10
11	54% Clarifier (PIPE 11)	54% Clarifier Wash Return	10
13	9-10 Evaps Barometric Condensers (PIPE 13)	Evaporators 9-10 Barometric Condensers, 9-11 Evaporator Feed Lines Wash	5
14	11 Evap Baro Condensers & Inter-Condenser (PIPE 14)	Evaporator #11 Barometric Condenser	5
15	#2 Filter Sump	No. 2 Filter Sump	10
16	3rd Filter Discharge Ditch	No. 3 Filter Sump	10
17	Incoming PW CHT	Incoming process water (constant head tank)	**No alarm**
18	Redundant Incoming PW CHT	Incoming process water (constant head tank)	**No alarm**

Following pipes don't have a conductivity probe installed as **P2O5 loss is not expected** there due to:
#3 pipe carries only the scrubber liquor from Digester fume scrubber;
#7 pipe carries only the scrubber liquor from #3 Filter fume scrubber;
#9 pipe carries rain water only from the Swimming Pool Pumps area;
#12 pipe carries rain water runoff only from Crescent Pond;

Figure 6: New Wales Conductivity Probe Locations in Phosphoric Acid Plant and Granulation

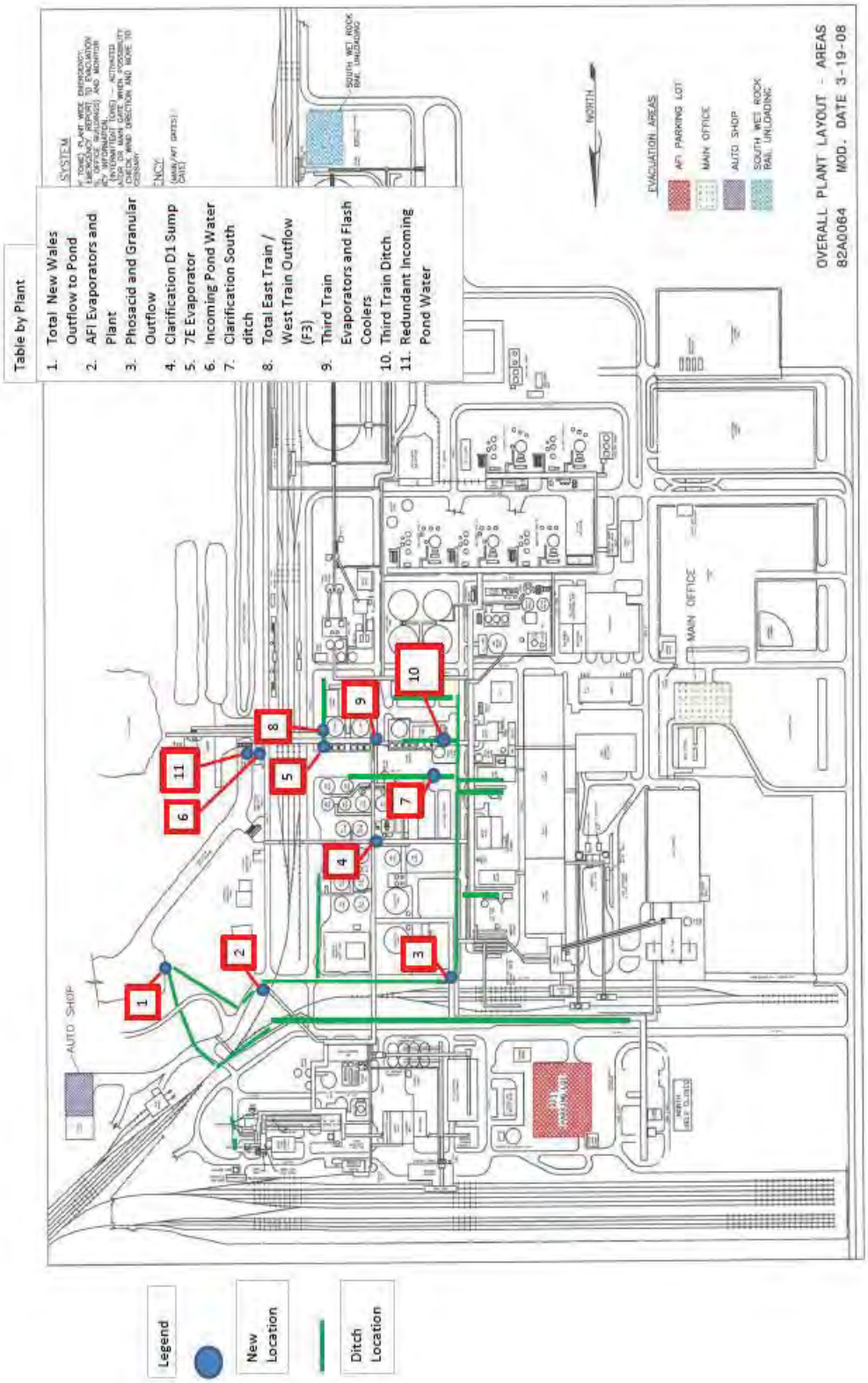


Table 3: New Wales Conductivity Alarm Limits (Differential & Absolute)

Probe No.	**Probe Name**	**Alarm Trigger (milliSiemens/cm)**[1]
1	Total New Wales Outflow to Pond	5
2	AFI Evaporators and Plant	5
3	Phos Acid and Granular Outflow	10
4	Clarification D1 Sump	20
5	7E Evaporator	10
6	Incoming Pond Water	**No alarm**
7	Clarification South Ditch	55 (absolute)
8	Total East Train / West Train Outflow (F3)	5
9	Third Train Evaporators and Flash Coolers	5
10	Third Train Ditch	5
11	Redundant Incoming Pond Water	**No alarm**

[1] The alarm triggers are differential values, unless otherwise noted in the table.

Figure 7: Uncle Sam Conductivity Probe Locations for Process Wastewater and River Water Return[2] (current and proposed)(Absolute)

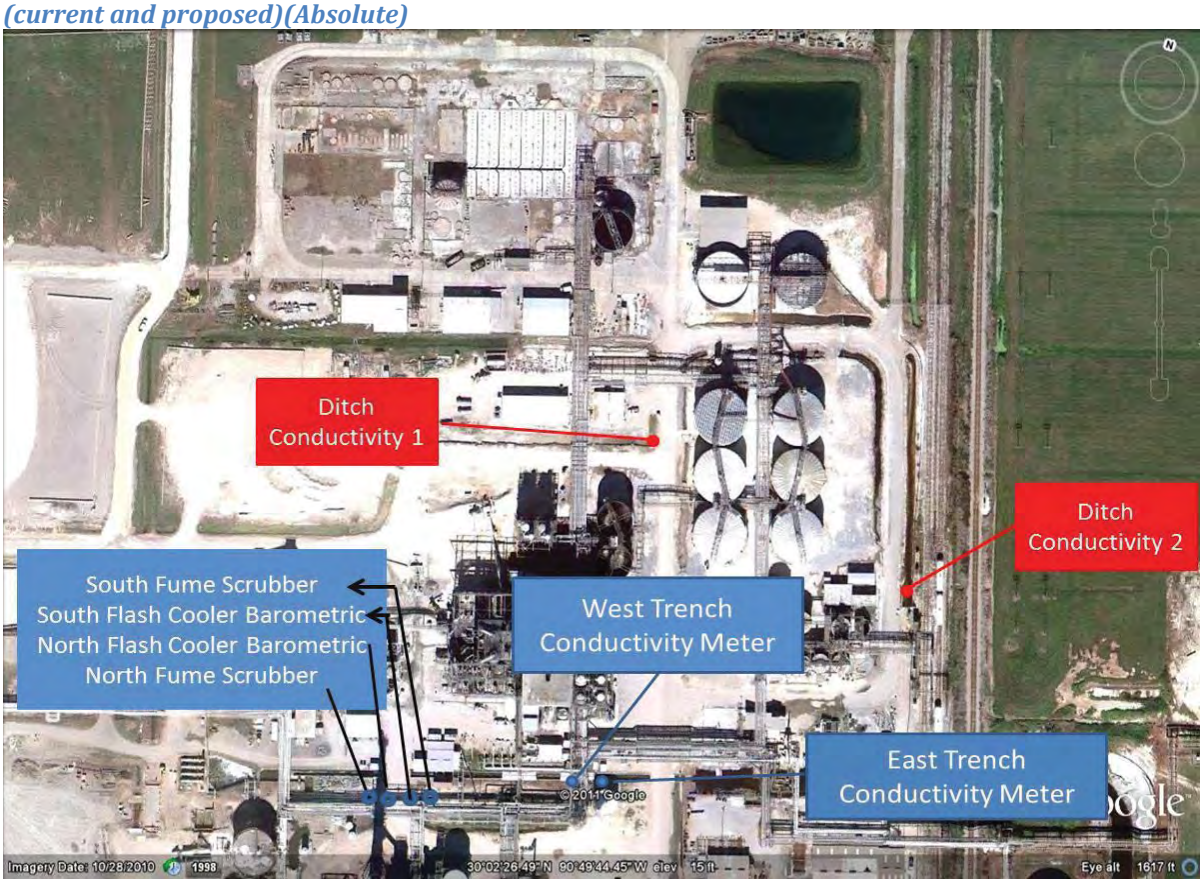


Table 4: Uncle Sam Conductivity Alarm Limits (Absolute)

Alarm Name	Alarm Condition
West Trench	700 microSiemens/cm[3]
South Fume scrubber	700 microSiemens/cm
South Flash Cooler Barometric Condenser	700 microSiemens/cm
North Flash Cooler Barometric Condenser	700 microSiemens/cm
North Fume scrubber	700 microSiemens/cm
East Trench	2000 microSiemens/cm
Ditch Conductivity 1[4]	milliSiemens/cm
Ditch Conductivity 2	milliSiemens/cm

[2] Uncle Sam project #6 in Appendix 6 (RCRA Project Narrative & Compliance Schedules) of the Consent Decree shows existing conductivity probes (blue) for the discharges to the outfall. The locations shown in red are proposed to identify spills that could enter the 04 Basin.

[3] Conductivity probes that are on units that use river water are measured in microSiemens. Ditch Conductivity 1 and Ditch Conductivity 2 probes will be on the Process Pond water, therefore milliSiemens are used.

[4] Ditch conductivity probes 1 & 2 will be filled in after installation and generation of the baseline.

Maintenance

Each Mosaic concentrate plant uses manufacturer recommended calibration procedures specific to the type of probe. The four calibration methods that are being used are Bench Calibration using a User-Supplied Wire, Bench Calibration Using a Foxboro Calibration Plug and Solution Calibration and the Decade resistor box. Table 5 below shows methods that are being used at each of the sites. Probes are removed, cleaned and dried every time prior the calibration procedure is performed.

Table 5: Calibration Procedures Used at Each Plant

Plant	Calibration Method
Bartow	User-Supplied Wire
	Foxboro Calibration Plug
	Solution Calibration
Riverview	Calibration Using a Foxboro Calibration Plug
Uncle Sam	User-Supplied Wire
New Wales	Decade Resistor Box

APPENDIX 6

APPENDIX 6

RCRA Project Narrative & Compliance Schedule Florida Facilities

Bartow

New Wales

Riverview

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Bartow

Project 1: Big Holding Tank and Wash Solution System in the Phosphoric Acid Plant

Description: The Big Holding Tank (BHT) and wash solution system in the Phosphoric Acid Plant project will install new tank(s), pumps, piping and controls to enable Mosaic to recover the value of cleaning wastes generated from the use of SACS, PACS, FSA and FSA Cleaning Solution from pipes, tanks, process equipment, or other storage or transport units as designated in the Facility Report. In addition, the BHT will enable Mosaic to recover spills and leaks in containable impervious areas (excluding those that occur within the battery limits of #3 DAP/MAP or #4 DAP). The BHT effluent must be reused as identified in the Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project — month 12
- Permitting with Regulatory Agency — month 28
- Commitment Request Approval — month 30
- Project Planning and Design — month 30
- Initiate field construction (Site prep, pilings, foundation) — month 38
- Tank fabrication initiated — month 47
- Tank Fabrication completion — month 57

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 1.

- Project Completion — month 66
- Start-up and documentation of training Completion — month 70

Project 2: Cleaning Solution Return Piping

Description: The Cleaning Solution Return Piping project will install new piping to enable Mosaic to: (1) clean transfer lines from the Phosphoric Acid Plant to the #3 DAP/MAP and #4 DAP granulation plants and return those cleaning wastes to the Big Holding Tank (BHT); (2) clean BHT Recovery Units located in the granulation plants and return those wastes to the BHT; and (3) clean FSA system and return wastes to the BHT. Completion of this project coincides with the completion of Project 1: Big Holding Tank and Wash Solution System in the Phosphoric Acid Plant. Upon completion, the Cleaning Solution Return Piping will be operated in association with the BHT as identified in the BMP and Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project — month 21
- Commitment Request Approval — month 36
- Project Planning and Design — month 36

- Initiate Field Construction month 53

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 2.

- Project Completion month 66
- Start-up and documentation of training Completion month 70

Project 4: Granular Holding Tank and Wash Solution System in the Granulation Plant

Description: Install two Granular Holding Tank (GHT)[1] systems- one in #3 DAP/MAP plant and one in #4 DAP plant. The GHT plus piping, pumps, and instrumentation (together the "GHT system") will transport and recirculate wash solution and Downstream spills and leaks between GHT Recovery Units and the GHT and consume the wash solution within the battery limits of the granulation plants as described in the Facility Report. Upon completion, the GHT system will be operated as identified in the BMP and Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of Project month 24
- Permitting with Regulatory Agency month 38
- Project approval month 38
- Project Planning and Design month 40
- Initiate field construction month 47

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 4.

- Project Completion month 68
- Start-up and documentation of training Completion month 74

Project 5: Upgrade Granulation Plant Sump System

Description: Modify current containment pads and sumps in the granulation plant scrubber area and plant battery limits to capture spills, leaks and cleaning solutions so materials may be returned to the process. Upon completion, the granulation plant spill recovery system will be operated as identified in the BMP and Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting

[1] Although Mosaic plans to install more than one GHT, for simplicity this Report will use the singular "GHT" to describe any and all GHTs that will be installed at Mosaic's Bartow facility.

from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project month 44
- Commitment Request Approval month 56
- Project Planning and Design month 58
- Initiate field construction month 60

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 5.

- Project Completion month 68
- Start-up and documentation of training Completion month 74

Project 6: North Gypsum Stack R-2 Canal Seepage Area

Description: Replace the earthen seepage collection ditch/sump at the R-2 Canal Seepage Area with a buried HDPE seepage collection drain, and then cap and backfill the area as needed to produce runoff suitable for discharge. The collected seepage will continue to be pumped and directed back to the R-2 Canal.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project month 0
- Initiate field construction month 12

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 6.

- Project Completion month 24

Project 7: BMP Training

Description: Site-specific RCRA and BMP training will be developed and implemented for all affected employees, maintenance personnel, and contractors in the Phosphoric Acid and Granulation plants, along with facility management, and others who manage waste streams covered by the CD.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Develop Training month 0

- Initiate training month 3

Completion: The following date is an enforceable date upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete the training required by Project 7.

- Training Completion month 9

New Wales

Project 1: Big Holding Tank and Wash Solution System in the Phosphoric Acid Plant

Description: The BHT and wash solution system in the Phosphoric Acid Plant project will install new tank(s) or modify two existing tanks, pumps, piping and controls to enable Mosaic to recover the value of cleaning wastes generated from the use of SACS and PACS from pipes, tanks, process equipment, or other storage or transport units as designated in the Facility Report. In addition, the BHT will enable Mosaic to recover spills and leaks from containable impervious areas (excluding those that occur within the battery limits of the #1DAP/MAP, #3 GMAP and the DAP 2 E & W granulation plants). The BHT effluent must be reused as identified in the Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project month 6
- Permitting with Regulatory Agency month 24
- Commitment Request Approval month 26
- Project Planning and Design month 27
- Initiate field construction (Site prep, pilings, foundation) month 35
- Tank fabrication initiated month 43
- Tank fabrication completed month 55

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 1.

- Project Completion month 64
- Start-up and documentation of training Completion month 68

Project 2: Cleaning Solution Return Piping

Description: The Cleaning Solution Return Piping Project will install new piping to enable Mosaic to: (1) clean transfer lines from the Phosphoric Acid plant to the #1DAP/MAP, #3 GMAP, DAP 2 East & West granulation plants and return those cleaning wastes to the Big

Holding Tank (BHT); (2) clean BHT Recovery Units located in the granulation plants and return those wastes to the Big Holding Tank (BHT); and (3) clean transfer lines from the Phosphoric Acid Plant to Animal Feed Ingredient Production and, if BHT effluent is used as the cleaning solution, return those cleaning wastes to the BHT. Completion of this project coincides with the completion of Project 1: Big Holding Tank and Wash Solution System in the Phosphoric Acid Plant. Upon completion, the Cleaning Solution Return Piping will be operated in association with the BHT as identified in the BMP and Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project — month 16
- Project Planning and Design — month 32
- Initiate field construction — month 50

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 2.

- Project Completion — month 64
- Start-up and documentation of training Completion — month 68

Project 3: DAP 2 East & West Scrubber System Modifications

Description: DAP 2 East & West granulation scrubber system modifications will install piping, seal tanks, vessels, valves, and instrumentation to convert from once-through Process Wastewater scrubbing to other non-hazardous scrubbing media.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project — Jan 2012
- Permitting with Regulatory Agency — Aug 2013
- Commitment Request Approval — Feb 2014
- Project Planning and Design — Mar 2014
- Initiate field construction — Jun 2015
- Complete 1st granulation plant — Mar 2016

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 3.

- Project Completion (2nd Granulation Plant) — Dec 2016
- Start-up and documentation of training Completion — Mar 2017

Project 4: Upgrade Granulation Plants' Pads and Sumps (Upgraded Recovery System)

Description: Modify current containment pads and sumps in each granulation plant scrubber area and plant battery limits to capture spills, leaks and cleaning solutions so materials may be returned to the process. This will include the four (4) granulation plants at New Wales- #1 DAP/MAP, #3 GMAP, #2 DAP East and #2 DAP West. Completion of this project will coincide with completion of Project 6: Granulation Holding Tank and Wash Solution System in the Granulation Plant. Upon completion, the upgraded recovery system will be operated as identified in the BMP and Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project — month 32
- Commitment Request Approval — month 48
- Project Planning and Design — month 48
- Initiate field construction — month 58

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 4.

- Project Completion — month 69
- Start-up and documentation of training Completion — month 72

Project 5: Granulation Plant Re-slurry System

Description: Install product recovery tank, hopper, piping, steam feed, valves, agitator, and pumps to recover damaged fertilizer product. The resulting slurry will be fed to the scrubber seal tank for consumption in the granulation process. A new system will be installed only for the DAP 2 East & West plants; #1 DAP/MAP and #3 GMAP already have re-slurry systems. Upon completion, this project will be operated as identified in the BMP and Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project — month 32
- Commitment Request Approval — month 44
- Project Planning and Design — month 45
- Initiate field construction — month 50

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 5.

- Project Completion — month 56

- Start-up and documentation of training Completion month 58

Project 6: Granular Holding Tank and Wash Solution System in the Granulation Plant

Description: Install two GHT systems - one in DAP 2 East & West and one in #1 DAP/MAP and #3 GMAP. The GHT system will transport and recirculate wash solution and Downstream spills and leaks between GHT Recovery Units and the GHT and consume the wash solution within the battery limits of the granulation plants as described in the Facility Report. Upon completion, the GHT system will be operated as identified in the BMP and Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project month 22
- Permitting with Regulatory Agency month 36
- Commitment Request Approval month 36
- Project Planning and Design month 36
- Initiate field construction month 47
- Construction First system complete month 56

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 6.

- Project Completion month 69
- Start-up and documentation of training Completion month 72

Project 8: Northeast Sump Area

Description: Modify the Northeast sump area to include an HDPE liner. Collected seepage in the sump area will continue to be pumped back into the process water north cooling channel.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project month 0
- Initiate field construction month 12

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 8.

- Project Completion month 24

Project 9: BMP Training

Description: Site-specific RCRA and BMP training will be developed and implemented for all affected employees, maintenance personnel, and contractors in the Phosphoric Acid and Granulation plants, and the Animal Feed Ingredients Production area, along with facility management, and others who manage waste streams covered by the CD.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Develop Training — month 0
- Initiate training — month 3

Completion: The following date is an enforceable date upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete the training required by Project 9.

- Training Completion — month 9

Riverview

Project 1: Big Holding Tank and Wash Solution System in the Phosphoric Acid Plant

Description: The Big Holding Tank (BHT) and Wash Solution System in the Phosphoric Acid Plant project will install new tank(s), pumps, piping and controls to enable Mosaic to recover the value of cleaning wastes generated from the use of SACS, PACS, FSA and FSA Cleaning Solution from pipes, tanks, process equipment, or other storage or transport units as designated in the Facility Report. In addition, the BHT will enable Mosaic to recover spills and leaks from containable impervious areas (excluding those that occur within the battery limits of the #5 DAP and #6 DAP/MAP granulation plants). The BHT effluent must be reused as identified in the Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project — month 1
- Permitting with Regulatory Agency — month 16
- Commitment Request Approval — month 16
- Project Planning and Design — month 19
- Initiate field construction (Site prep, pilings, foundation) — month 28
- Tank(s) fabrication initiated — month 36
- Tank(s) fabrication completed — month 46

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's

signature of the Consent Decree, Mosaic must complete construction and implement Project 1.

- Project Completion month 58
- Start-up and Documentation of Training Completion month 62

Project 2: Cleaning Solution Return Piping

Description: The Cleaning Solution Return Piping Project will install new piping to enable Mosaic to: (1) clean transfer lines from the Phosphoric Acid Plant to the #5 DAP and #6 DAP/MAP granulation plants and the Dock Tanks and return those cleaning wastes to the Big Holding Tank (BHT); (2) clean BHT Recovery Units located in the granulation plants and return those cleaning wastes to the Big Holding Tank (BHT); and (3) clean FSA tanks and system and return those cleaning wastes to the Big Holding Tank (BHT). Completion of this project coincides with the completion of Project 1: Big Holding Tank and Wash Solution System in the Phosphoric Acid Plant. Upon completion, the Cleaning Solution Return Piping will be operated as identified in the BMP and Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project month 7
- Project Planning and Design month 22
- Initiate field construction month 37

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 2.

- Project Completion month 58
- Start-up and documentation of training Completion month 62

Project 3: Granulation Plant Re-slurry System

Description: Install product recovery tank, hopper, piping, steam feed, valves, agitator, and pumps to recover damaged fertilizer product. The resulting slurry will be fed back to the granulation process. This may be one system for both granulation plants, or it may be two systems, one for each granulation plant. Upon completion, this project will be operated as identified in the BMP and Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project month 20
- Project Planning and Design month 35
- Initiate field construction month 46

Completion: The following dates are enforceable dates upon which, following the date of

Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 3.

- Project Completion month 52
- Start-up and documentation of training Completion month 54

Project 4: Granular Holding Tank and Wash Solution System in the Granulation Plant

Description: Install one common or two GHT system(s) that will receive wastes from the #5 DAP and #6 DAP/MAP granulation plants. The GHT plus intermediate holding tanks, piping, pumps, and instrumentation, together the "GHT system(s)," will transport and recirculate wash solution and Downstream spills and leaks between the GHT Recovery Units and the GHT and consume the wash solution in the granulation plants as identified in the Facility Report. Upon completion, the GHT system will be operated as identified in the BMP and Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project month 15
- Permitting with Regulatory Agency month 28
- Project Planning and Design month 30
- Initiate field construction month 39

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 4.

- Project Completion month 54
- Start-up and documentation of training Completion month 58

Project 5: Upgrade Granulation Plant Sump System

Description: Modify current containment pads and sumps in each granulation plant scrubber area and plant battery limits to capture spills, leaks and cleaning solutions so materials may be returned to the process. Completion of this project will be coordinated with Project 4: Granulation Holding Tank and Wash Solution System for simultaneous completion. Upon completion, this project will be operated as identified in the BMP and Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project month 15
- Project Planning and Design month 30
- Initiate field construction month 39

Completion: The following dates are enforceable dates upon which, following the date of

Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 5.

- Project Completion month 54
- Start-up and documentation of training Completion month 58

Project 6: Lime Sludge Pond

Description: Install additional seepage control features, including HDPE liner, that when installed will meet or exceed Appendix 1 liner design standards.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Engineering / Development of project month 0
- Initiate sludge removal month 18
- Initiate field construction month 30

Completion: The following dates are enforceable dates upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete construction and implement Project 6.

- Project Completion month 60

Project 7: BMP Training

Description: Site-specific RCRA and BMP training will be developed and implemented for all affected employees, maintenance personnel, and contractors in the Phosphoric Acid and Granulation plants, along with facility management, and others who manage waste streams covered by the CD.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Mosaic's signature of the Consent Decree.

- Develop Training month 0
- Initiate training month 3

Completion: The following date is an enforceable date upon which, following the date of Mosaic's signature of the Consent Decree, Mosaic must complete the training required by Project 7.

- Training Completion month 9

Summary of Compliance Schedule Projects Completed

Bartow: Granulation Plant Re-Slurry System (DAP #4) – Completed December 2012

Bartow: FSA Spill and Leak Management – Completed May 2013

Bartow: Phosphoric Acid Spill Monitoring System Upgrade – Completed March 2014

Bartow: Granulation Plant Reslurry System (#3 DAP) (Project 3) – Completed August 2015

New Wales: Auxiliary Holding Pond (AHP) Slurry Wall – Completed April 2014

New Wales: Phosphoric Acid Leak and Spill Monitoring (Project 7) – Completed August 2015

Riverview: FSA Spill and Leak Management -- Completed October 2010

Riverview: Close Floating Ditch – Completed May 2012

Riverview: DAP 6 Granulation Scrubber System Modification – Completed April 2013

Riverview: #5 DAP Scrubber System Modification – Completed April 2014

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF FLORIDA

UNITED STATES OF AMERICA,	)	
	)	
and	)	
	)	
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION,	)	
	)	
Plaintiffs,	)	Civil Action No. 8:15-cv-02286-JWD-TBM
	)	
v.	)	
	)	
MOSAIC FERTILIZER, LLC,	)	
	)	
Defendant.	)	

Appendices to the Proposed Consent Decree

Exhibit 3 of 4

Appendix 7

APPENDIX 7

APPENDIX 7
PHOSPHOGYPSUM STACK SYSTEM ALTERNATIVE LINER REQUIREMENTS

A. MOSAIC BARTOW

Appendix 1 of this Consent Decree sets forth requirements for lining Phosphogypsum Stack Systems ("Stack Systems") within five years of the Effective Date of this Consent Decree as a means of reducing or eliminating contamination migrating from such stacks. On January 10, 2011, Mosaic submitted a demonstration document titled "Overview of Seepage Control Features and Projected Groundwater Quality Impacts for Mosaic Fertilizer, LLC Bartow Phosphogypsum Stack System," hereafter referred to as the "Bartow Demonstration," proposing that alternate means of containment can meet the Environmental Protection Agency's (EPA) and Florida Department of Environmental Protection's (FDEP) environmental protection goals and obviate the requirement of Appendix 1, Attachment D, Section VII to, within five years of the Effective Date, line existing unlined Phosphogypsum Stack Systems in accordance with Appendix 1, Attachment C, Section VI, or within five years of the Effective Date, close existing unlined Phosphogypsum Stack Systems in accordance with Appendix 1, Attachment D. This Appendix identifies the specific Phosphogypsum Stack System components that, subject to the terms of the Consent Decree (including Paragraph 24(b) thereof), the EPA and FDEP have determined either meet the liner design standards of Appendix 1, Attachment C, Section VI, or are considered an acceptable alternative to those standards. The EPA and FDEP's acceptance of the Bartow Demonstration for this purpose does not bind the EPA or the FDEP to the factual assertions and conclusions of the Bartow Demonstration. This Appendix also identifies the specific Phosphogypsum Stack System components that either meet the closure design standards of Appendix 1, Attachment D, or that are considered to be an acceptable alternative to the closure design standards of Appendix 1, Attachment D.

General Description

The Bartow Phosphogypsum Stack System consists of the Closed North Phosphogypsum Stack (North Stack) and its associated system components and the Lined South Phosphogypsum Stack Expansion (South Stack) and its associated system components (Figure 1). The following water bodies illustrated in Figure 1 are not part of the Phosphogypsum Stack System and as such are exempt from the liner requirements: Steel Lake, Lake Vondrasek, Bonny Lake, Terry Lagoon, Clear Water Pits, Lake Greener, Lake Law, Lake Donny and Brown Lake. In addition, Mosaic has identified other water bodies existing at Bartow that are not part of the Phosphogypsum Stack System.

The Lined DAP Pond is not associated with the North Stack System or South Stack System. It is associated with the production of monoammonium phosphate (MAP) and diammonium phosphate (DAP) fertilizers.

The North Stack-associated components include two lined auxiliary holding ponds on top of the North Stack (Lined North Pond and Lined South Pond), a Cooling Pond System, and Area 8E South (Emergency Diversion Impoundment). The Cooling Pond System includes the R1 and R2 Return Water Channels ("R1 Canal" and "R2 Canal") on the west side of the North Stack, the closed Cooling Pond Area R-7 and the R-7 associated channel that runs along the north and east side of the North Stack, Area R3, Area R5, and Cooling Pond Area LR6 (Figure 2). The Cooling Pond System is used for process water management, as well as circulation and cooling of process water, and receives incidental discharges of gypsum slurry.

The South Stack-associated components include the South Stack Toe Ditches, Lined Surge Pond Area ("Area 2C"). Non-Process Wastewater ponds SR-South, SR-North and CJ-North are notable water features but they are not part of the Phosphogypsum Stack System.

The key components of Mosaic's Demonstration rely mostly upon soil bentonite cut-off walls ("slurry walls") installed as engineered seepage prevention features, and certain existing liners, as summarized below.

Soil Bentonite Cut-Off Walls

Closed North Stack
Currently the Closed North Stack and its Cooling Pond System have a 2 ½-foot thick slurry wall that extends 35 to 75-feet into the natural ground clay confining unit beneath the Stack System to mitigate lateral seepage from the North Stack System along the east and south walls. The slurry wall initiates at the northeast side of the North Stack and traverses the entire eastern side of the Cooling Pond System and southern end of the Cooling Pond System, and terminates at the southwest end of the North Stack at the R1 Return Water Channel. The location of the slurry wall is designated by the green line in Figure 2.

South Stack
Currently the South Stack and its associated Lined Surge Pond and South Stack Toe Ditches has a 2 ½-foot thick slurry wall that extends into the natural ground clay confining unit beneath the Stack System to mitigate lateral seepage from the South Stack System along the north, east and south walls. The slurry wall initiates at the northwest side of the South Stack and traverses the entire northern end, eastern side and southern end of the South Stack and terminates at the southwest end of the South Stack. The location of the slurry wall is designated by the green line in Figure 3.

Synthetic Liners

Closed North Stack
The Closed North Stack has an amended gypsum grassed cover over its side slopes and a grassed soil cover over the 40-mil HDPE liner installed within slope runoff ditches for closure. The only two areas not covered with a soil and grass top cover are the two 80-mil HDPE-lined auxiliary holding ponds situated atop the North Stack (Figure 2).

South Stack
The South Stack has 60-mil HDPE liners installed at an interim height within the stack. The liners cover the entire portion of the stack that receive phosphogypsum. The Lined Surge Pond at the western base of the South Stack is lined with a 80-mil HDPE liner that extends to the upstream slope of the perimeter earthen dike (Figure 3).

Liner Requirements for Specific Components of the Stack System and for Other Water Features

The following components or former components generally designated by red lines in Figure 4 of Mosaic Bartow's North and South Stack Systems or adjacent water features listed above are not subject to the lining requirements of Appendix 1, Attachments C and D, as long as they do not hereafter receive Process Wastewater or Phosphogypsum (except in emergency situations as approved by the Florida Department of Environmental Protection).

1) Area 8E South (Emergency Diversion Impoundment)
2) Inactive North Stack (including the unlined portion underlying the RO Plant Area)
3) SR-South
4) SR-North
5) CJ-North

The following components of Mosaic Bartow's North and South Stack Systems or process-water receiving ponds designated in purple in Figure 5 have existing engineered seepage control features that, as installed, either meet the liner design standards of Appendix 1, Attachment C, Section VI or are considered by EPA and FDEP to be environmentally protective and thus considered to be an acceptable alternative to the liner design standards of Appendix 1, Attachment C, Section VI (i.e. no additional equivalency determination necessary).

1) Lined North Pond (Inactive North Stack)
2) Lined South Pond (Inactive North Stack)
3) South Gypsum Stack Lined Vertical Expansion (Over Unlined Stack)
4) South Gypsum Stack Lined Surge Pond Area
5) Lined Cooling Pond Area LR6
6) Lined DAP Pond
7) Lined Ditch connecting R5 and LR6
8) Lined South Stack West Relief Ditch
9) Lined Booster Pump Spill Containment Area

The following components of Mosaic Bartow's North Stack System designated by dark blue lines in Figure 6 deviate from the Government's liner design standards of Appendix 1, Attachment C, Section VI but are determined to be environmentally protective and thus considered to be an acceptable alternative to the requirements of Appendix 1, Attachment C, Section VI (i.e. no additional equivalency determination necessary), subject to the Continued Monitoring Project below. All components in Mosaic Bartow's South Stack System either do not deviate from the

Government's liner design standards of Appendix 1, Attachment C, Section VI or have been previously approved by FDEP as equivalent to or an acceptable alternative to the lining requirements of Florida Administrative Code 62-673.400.

1) R1 and R2 Return Water Channels
2) Closed Cooling Pond Area R7
3) Area R7's associated channel that runs along the north and east sides of the North Stack
4) Area R3
5) Area R5

The R-2 Canal Seepage Collection Area designated in Figure 2 does not fully conform to the liner design standards of Appendix 1, Attachment C, Section VI. EPA and FDEP anticipate that, once Mosaic implements the R-2 Canal Seepage Collection Area project set forth in Appendix 6 (RCRA Project Narrative & Compliance Schedule), it will be environmentally protective, and thus it is considered to be an acceptable alternative to the requirements of Appendix 1, Attachment C, Section VI (i.e. no additional equivalency determination necessary).

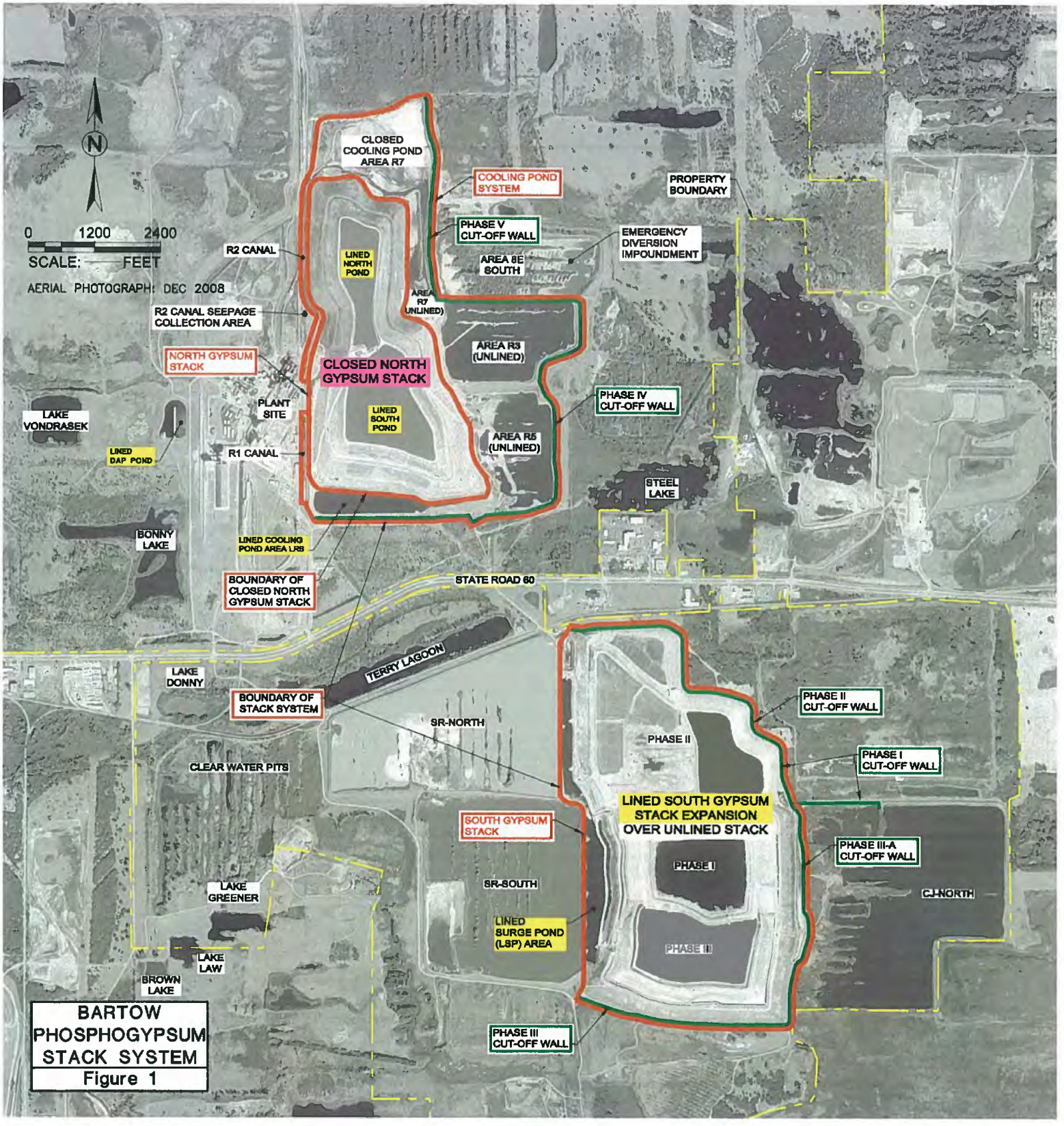
Continued Monitoring Project (In addition to the requirements of the FDEP NPDES permit)

1) Mosaic shall evaluate water level data collected from Piezometers located around the perimeter of the north stack slurry wall to monitor the performance of the slurry wall associated with the north stack (NPDES Permit # FL0267911), along with any monitoring well/piezometer data collected to monitor slurry wall performance associated with the south stack (NPDES Permit # FL0001589), to continue to confirm the slurry wall integrity.

Closed Components of Stack System

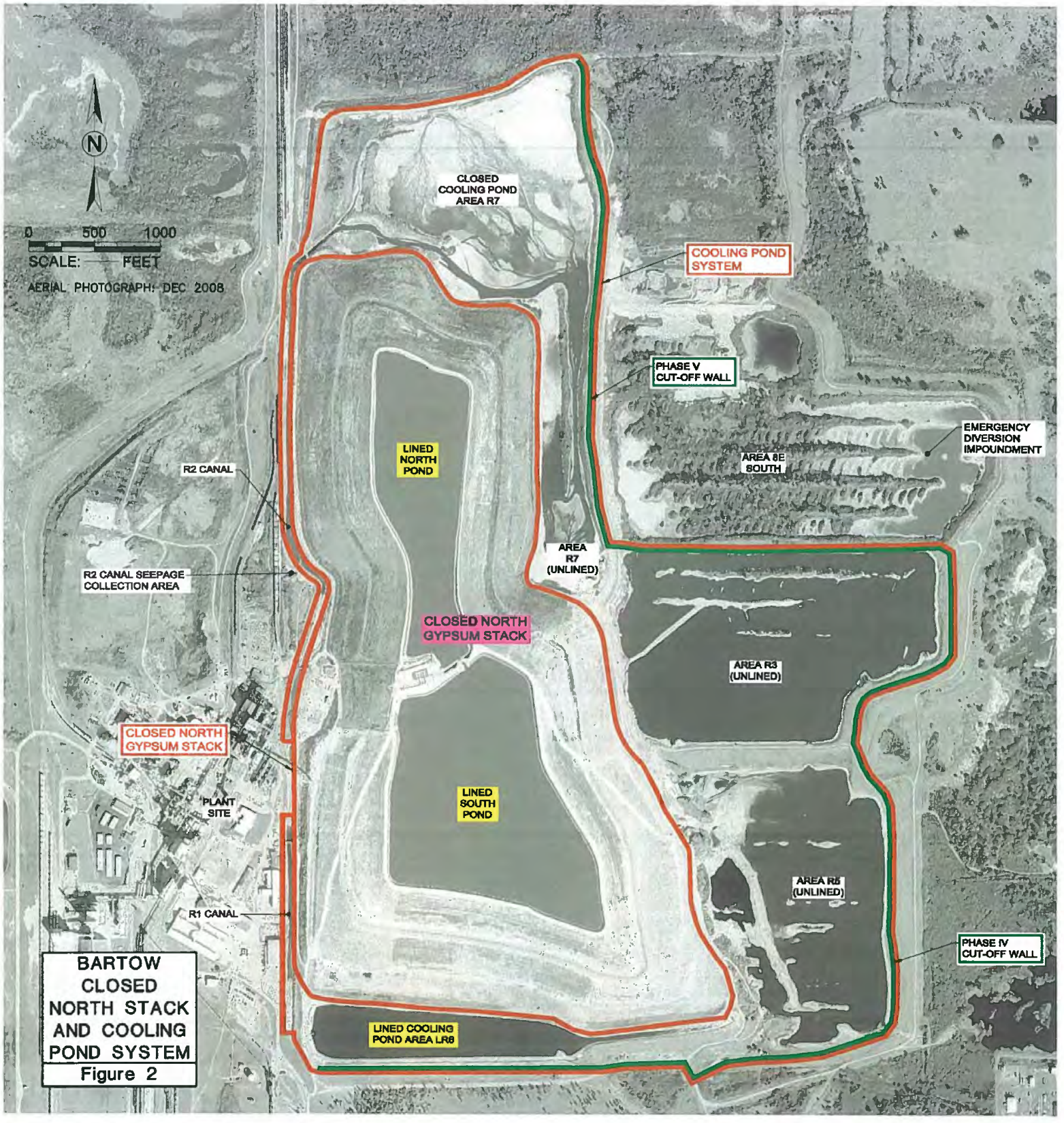
The following components of Mosaic Bartow's Stack Systems have existing engineered closure covers that, as installed, either meet the closure design standards of Appendix 1, Attachment D, or are determined to be environmentally protective and thus are considered to be an acceptable alternative to the requirements of the closure design standards set forth in Appendix 1, Attachment D (i.e., no additional alternative determination necessary).

1) North Gypsum Stack Top Gradient (below lined AHPs)
2) North Gypsum Stack Side Slopes
3) South Gypsum Stack Top Gradient Below Vertical Expansion Liner
4) South Gypsum Stack Side Slopes (below vertical expansion)
5) Northern 45 acres of Cooling Pond Area R7



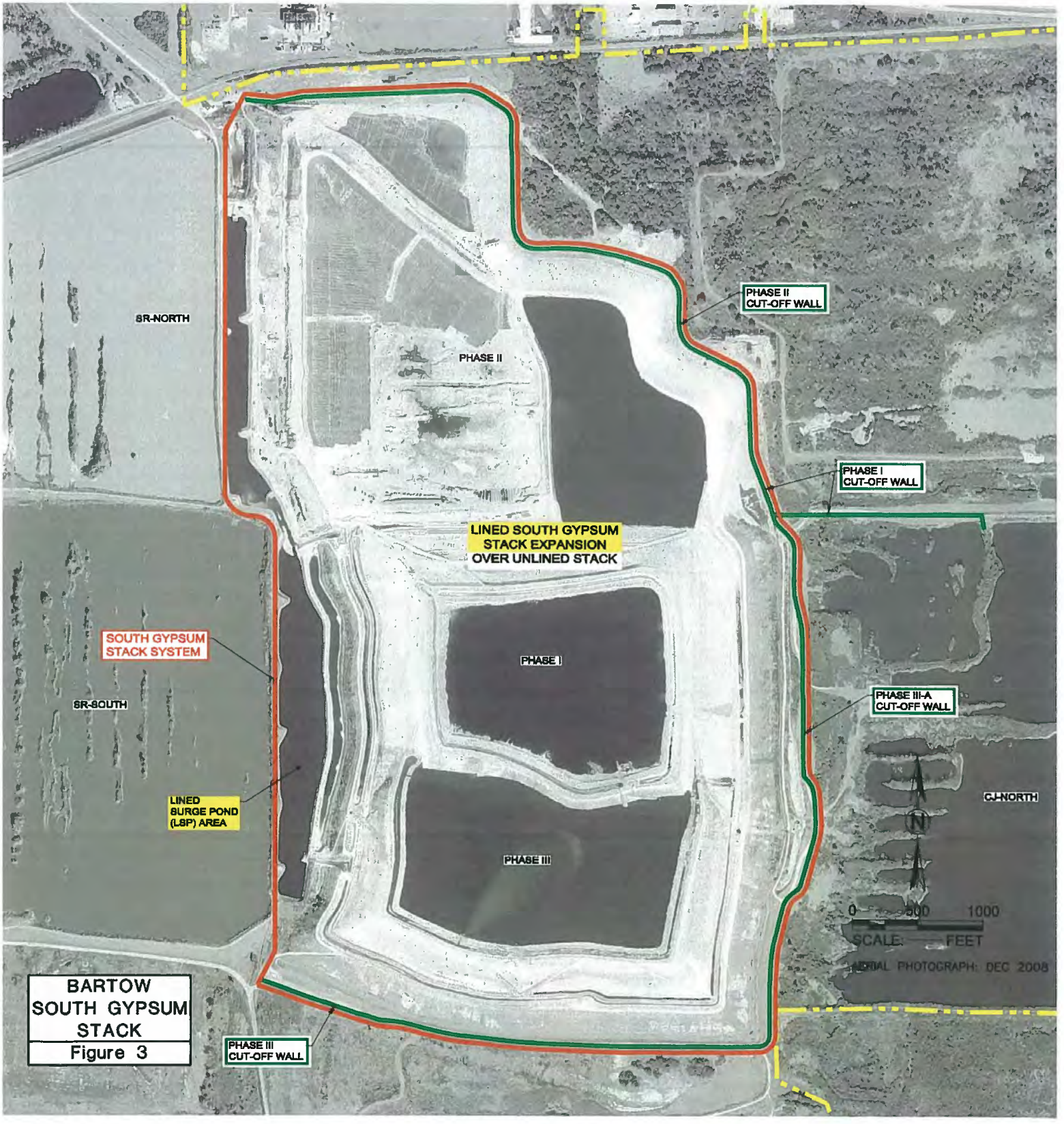
BARTOW PHOSPHOGYPSUM STACK SYSTEM

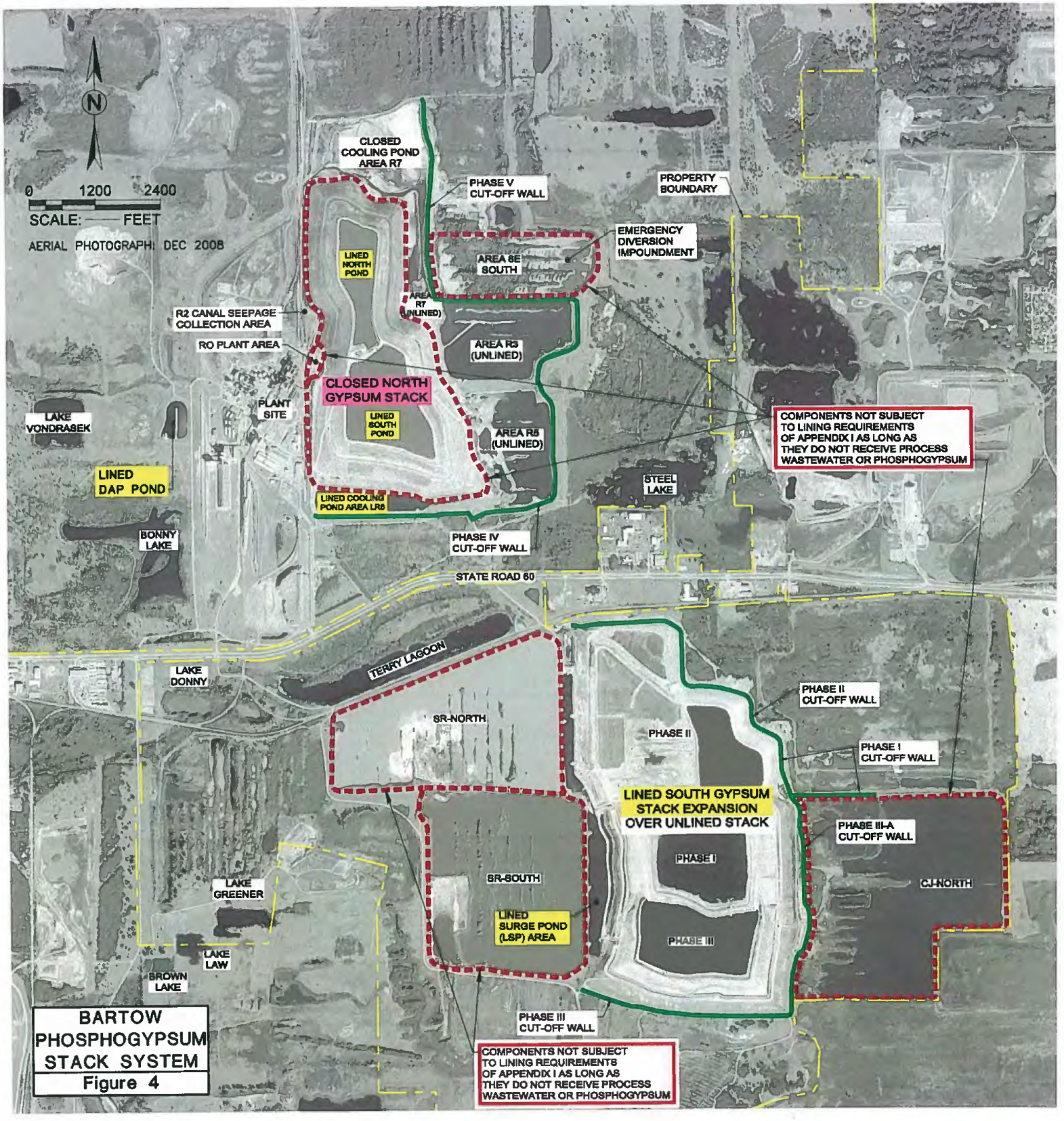
Figure 1



BARTOW CLOSED NORTH STACK AND COOLING POND SYSTEM

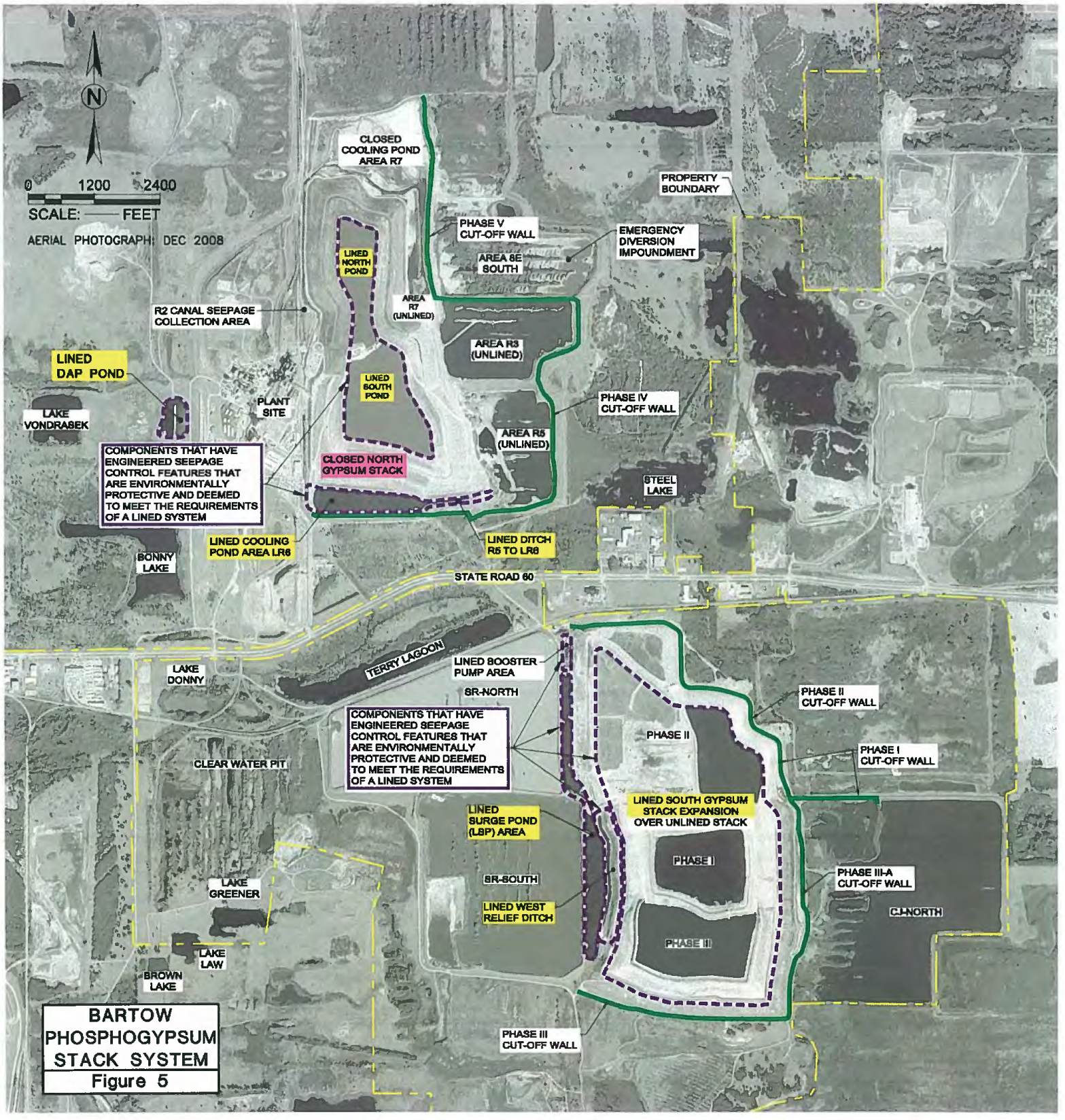
Figure 2

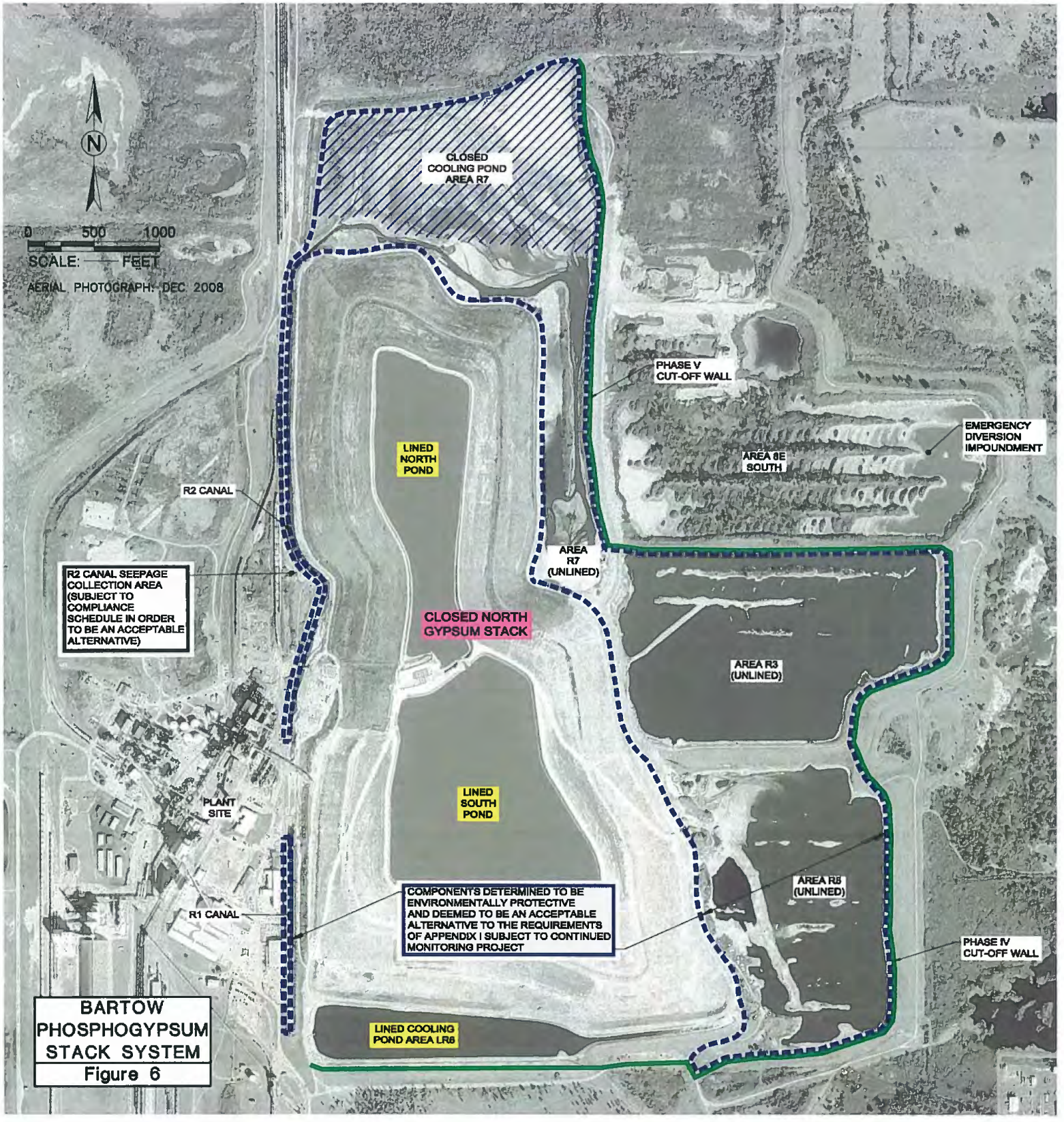

SR-NORTH
PHASE II
PHASE II CUT-OFF WALL
PHASE I CUT-OFF WALL
LINED SOUTH GYPSUM STACK EXPANSION OVER UNLINED STACK
SOUTH GYPSUM STACK SYSTEM
PHASE I
SR-SOUTH
PHASE III-A CUT-OFF WALL
LINED SURGE POND (LSP) AREA
CJ-NORTH
PHASE III
N
0 500 1000
SCALE: FEET
AERIAL PHOTOGRAPH: DEC 2008
BARTOW SOUTH GYPSUM STACK
Figure 3
PHASE III CUT-OFF WALL



BARTOW PHOSPHOGYPSUM STACK SYSTEM

Figure 4


N
0 1200 2400
SCALE: FEET
AERIAL PHOTOGRAPH: DEC 2008
CLOSED COOLING POND AREA R7
PROPERTY BOUNDARY
PHASE V CUT-OFF WALL
EMERGENCY DIVERSION IMPOUNDMENT
AREA 8E SOUTH
LINED NORTH POND
AREA R7 (UNLINED)
R2 CANAL SEEPAGE COLLECTION AREA
AREA R3 (UNLINED)
LINED DAP POND
LINED SOUTH POND
PLANT SITE
PHASE IV CUT-OFF WALL
LAKE VONDRASEK
AREA R5 (UNLINED)
COMPONENTS THAT HAVE ENGINEERED SEEPAGE CONTROL FEATURES THAT ARE ENVIRONMENTALLY PROTECTIVE AND DEEMED TO MEET THE REQUIREMENTS OF A LINED SYSTEM
CLOSED NORTH GYPSUM STACK
STEEL LAKE
LINED COOLING POND AREA LR6
LINED DITCH R5 TO LR6
BONNY LAKE
STATE ROAD 60
TERRY LAGOON
LINED BOOSTER PUMP AREA
LAKE DONNY
SR-NORTH
PHASE II CUT-OFF WALL
COMPONENTS THAT HAVE ENGINEERED SEEPAGE CONTROL FEATURES THAT ARE ENVIRONMENTALLY PROTECTIVE AND DEEMED TO MEET THE REQUIREMENTS OF A LINED SYSTEM
PHASE II
PHASE I CUT-OFF WALL
CLEAR WATER PIT
LINED SURGE POND (LSP) AREA
LINED SOUTH GYPSUM STACK EXPANSION OVER UNLINED STACK
PHASE I
SR-SOUTH
PHASE III-A CUT-OFF WALL
LAKE GREENER
LINED WEST RELIEF DITCH
CL-NORTH
PHASE III
LAKE LAW
BROWN LAKE
PHASE III CUT-OFF WALL
BARTOW PHOSPHOGYPSUM STACK SYSTEM
Figure 5



BARTOW PHOSPHOGYPSUM STACK SYSTEM

Figure 6

B. MOSAIC NEW WALES

Appendix 1 of this Consent Decree sets forth requirements for lining Phosphogypsum Stack Systems ("Stack Systems") within five years of the Effective Date of this Consent Decree as a means of reducing or eliminating contamination migrating from such stacks. On August 16, 2010, May 27, 2011 and November 7, 2011, Mosaic submitted demonstration documents titled "Overview of Seepage Control Features and Projected Groundwater Quality Impacts for Mosaic Fertilizer, LLC New Wales Phosphogypsum Stack System," hereafter referred to as the "New Wales Demonstration," proposing that alternate means of containment can meet the EPA's and FDEP's environmental protection goals and obviate the requirement of Appendix 1, Attachment D, Section VII to, within five years of the Effective Date, line existing unlined Phosphogypsum Stack Systems in accordance with Appendix 1, Attachment C, Section VI or within five years of the Effective Date, close existing unlined Phosphogypsum Stack Systems in accordance with Appendix 1, Attachment D. This Appendix identifies the specific Phosphogypsum Stack System components that, subject to the terms of the Consent Decree (including Paragraph 24(b) thereof), the EPA and FDEP have determined either meet the liner design standards of Appendix 1, Attachment C, Section VI or are considered an acceptable alternative to those standards. The EPA and FDEP's acceptance of the New Wales Demonstration for this purpose does not bind the EPA or the FDEP to the factual assertions and conclusions of the New Wales Demonstration. This Appendix also identifies the specific Phosphogypsum Stack System components that either meet the closure design standards of Appendix 1, Attachment D or that are considered to be an acceptable alternative to the closure design standards of Appendix 1, Attachment D.

General Description

The New Wales Phosphogypsum Stack System consists of the Closed North Phosphogypsum Stack (North Stack) and its associated system components and the Lined South Phosphogypsum Stack (South Stack) and its associated system components (Figure 1).

The North Stack-associated components include two lined auxiliary holding ponds on top of the North Stack ("Lined Surge Pond (LESP)-1 and LESP-2"), a below-grade auxiliary holding pond to the southwest of the North Stack and a Cooling Pond System. The Cooling Pond System is used for process water management, as well as circulation and cooling of Process Water, and receives incidental discharges of gypsum slurry. The Cooling Pond System consists of the main Cooling Pond, the North Channel, the East Channel, and the West Channel (Figure 2). Since closure of the North Stack, all these components (even those located on the North Stack) are now part of the operating South Stack System. Non-Process Wastewater Impoundment Area A-11 is a notable water feature used by the New Wales Facility but is not part of the Phosphogypsum Stack System. Mosaic has identified other water bodies existing at New Wales that are not part of the Phosphogypsum Stack System.

The South Stack-associated components include the Toe Ditches, comprised of the seepage collection ditch and the decant water/runoff collection ditch, circling the South Stack, and a lined auxiliary holding pond (LESP 3) on top of the South Stack (Figure 3).

The key components of the Demonstration rely mostly upon soil bentonite cut-off walls ("slurry walls") installed as engineered seepage prevention features, and certain existing liners, as summarized below.

Soil Bentonite Cut-Off Walls

Currently the Closed North Stack and the surrounding Cooling Pond System have three 2 ½-foot thick slurry walls (two of which are interconnected) that extend 70 to 115-feet into the natural ground clay confining unit beneath the Stack System to mitigate lateral seepage from the North Stack and Cooling Pond System. The North Perimeter Dike and Plant slurry walls (which overlap and are interconnected) initiate at the northeast side of the North Perimeter Dike and traverse the entire northern alignment of the North Stack, encompass the Plant area, and terminate midway down the western side of the North Stack. The Phase I Expansion Area slurry wall (installed to hydraulically isolate the unlined cooling pond from the lined South Stack expansion area) initiates on the southwest end of the main Cooling Pond and West Channel and traverses the entire southern perimeter of the main Cooling Pond, and terminates at the southeast end of the main Cooling Pond. The location of the slurry walls are designated by the green line in Figure 1. Pursuant to Appendix 6 (RCRA Project Narrative & Compliance Schedule), Mosaic has completed a slurry wall extension project by overlapping the existing Expansion Area cut-off wall at the southwest corner of the Cooling Pond with a new slurry wall keyed 3 feet into bedclay that initiates about 900 feet east of the southeast corner of the Below Grade Unlined Auxiliary Holding Pond (AHP) and traverses the entire south and west perimeters of the AHP, terminating at a tie-in with the existing Plant slurry wall 400 feet north of the northwest corner of the AHP.

Synthetic Liners

Closed North Stack
The Closed North Stack has an amended gypsum grassed cover over its side slopes and a grassed soil cover over the 40-mil to 60-mil high density polyethylene (HDPE) liner installed atop the stack and mid-slope and toe drainage ditches, respectively, for closure. The only two areas not covered with a soil and grass top cover are the two 60-mil HDPE-lined auxiliary holding ponds situated atop the North Stack (Figure 2).

South Stack
The South Stack has 60-mil HDPE liners installed over the entire base of the stack including perimeter toe ditches and upstream slope of the perimeter earthen dike (Figure 3).

Liner Requirements for Specific Components of the Stack System and for Other Water Features

The following components or former components designated in red in Figure 1 of Mosaic New Wales's Stack System or adjacent water features are not subject to the liner requirements of Appendix 1, Attachments C and D, as long as they do not hereafter receive Process Wastewater or Phosphogypsum.

1) Non-Process Water Impoundment Area A-11
2) Closed North Stack (except for LESP-1 and LESP-2)
3) Section 30 Freshwater Pond
4) SWRP-S plant non-process retention pond
5) SWRP-N plant non-process retention pond

The Northeast Sump that collects seepage from the North Toe Drain (see Figure 1) for pumping back into the process system does not fully conform to the liner design standards of Appendix 1, Attachment C, Section VI. EPA and FDEP anticipate that, once Mosaic implements the Northeast Sump project set forth in Appendix 6 (RCRA Project Narrative & Compliance Schedule), it will be environmentally protective, and thus it is considered to be an acceptable alternative to the requirements of Appendix 1, Attachment C, Section VI (i.e. no additional equivalency determination necessary).

The following components of Mosaic New Wales's Stack System designated in purple in Figure 4 have existing engineered seepage control features that, as installed, either meet the liner design standards of Appendix 1, Attachment C, Section VI or are determined to be environmentally protective and thus are considered to be an acceptable alternative to the requirements of Appendix 1, Attachment C, Section VI (i.e. no additional alternative determination necessary).

1) South Gypsum Stack
2) South Gypsum Stack Toe Ditches
3) LESP-1
4) LESP-2
5) LESP-3 on South Stack

The following components of Mosaic's Stack System designated in orange in Figure 5 deviate from the Government's liner design standards of Appendix 1, Attachment C, Section VI, but are determined to be environmentally protective, and thus are considered to be an acceptable alternative to the requirements of Appendix 1, Attachment C, Section VI (i.e. no additional equivalency determination necessary).

1) Main Cooling Pond
2) East Channel
3) North Channel
4) West Channel
5) Below-Grade Unlined Auxiliary Holding Pond

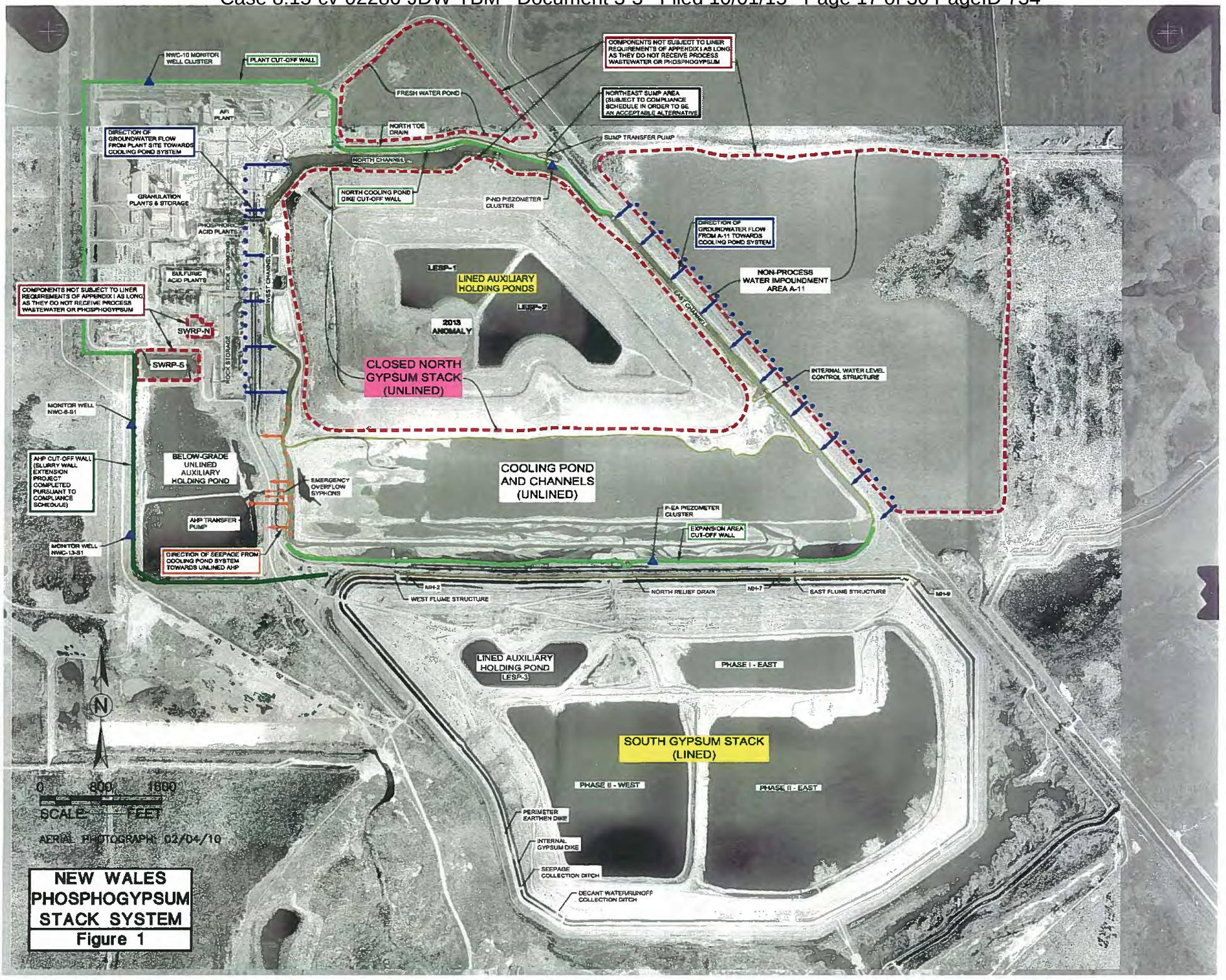
Mosaic shall undertake the following additional project.

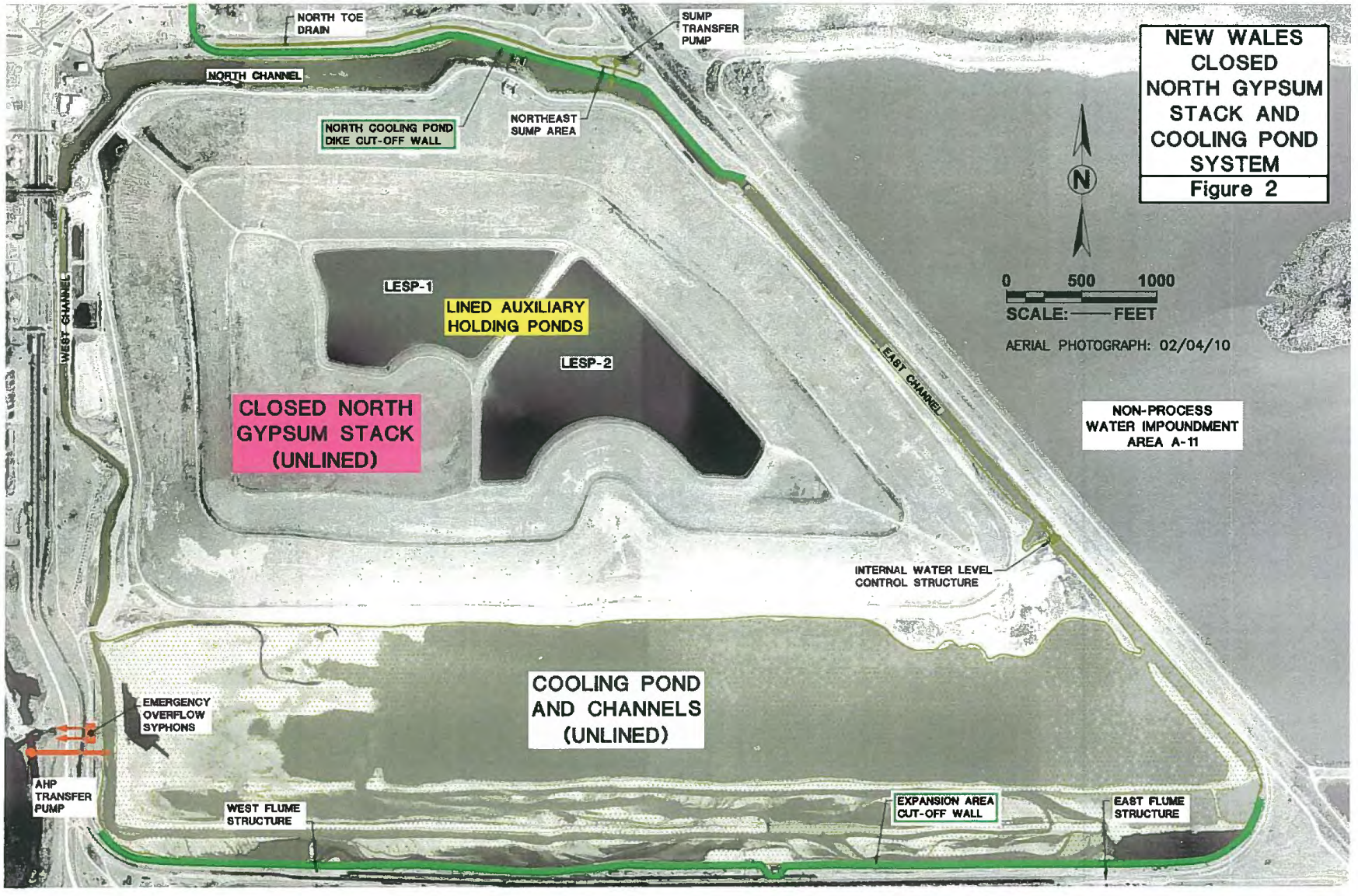
1) Mosaic shall investigate reasonable and practicable methods to reduce the volume of pond water within Mosaic's main Cooling Pond that would be lost in the event of a sinkhole. Mosaic shall complete this review of potential methods within two years from the Effective Date of this Consent Decree and shall submit to EPA and FDEP its findings. The Parties: (1) will then confer to discuss the technical and economic viability of the findings; (2) if any technically and economically viable methods are identified and mutually agreed to as such, the parties shall discuss and agree upon the circumstances under which such methods will be implemented; and (3) agree that the foregoing obligations shall not be construed to require Mosaic to undertake, fund, or otherwise implement any methods evaluated under item 1 above unless agreement is reached between the parties, as noted in item 2 above.

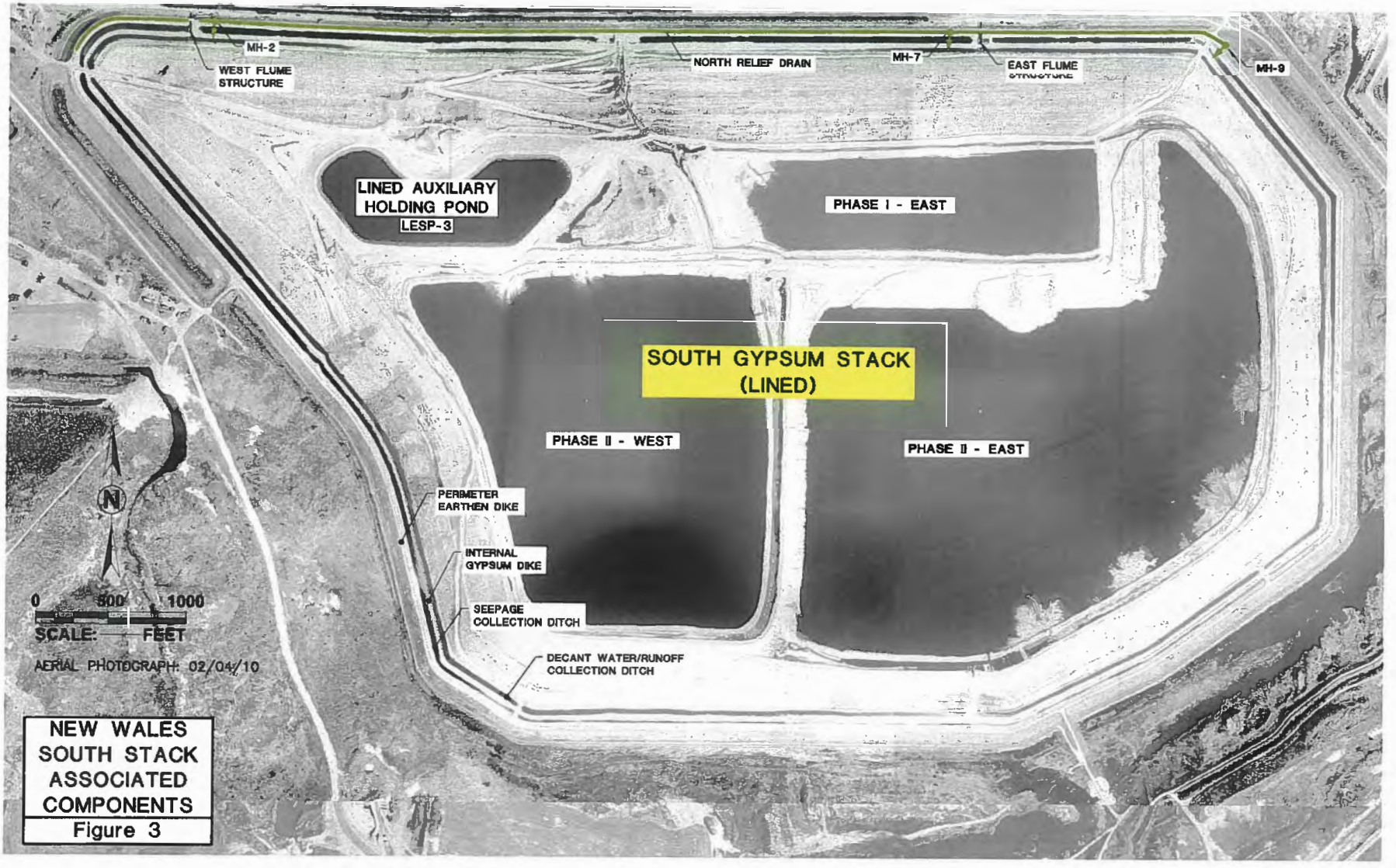
Closed Components of the Phosphogypsum Stack System

The following components of Mosaic New Wales's Stack System have existing engineered closure covers that, as installed, either meet the closure design standards of Appendix 1, Attachment D, or are determined to be environmentally protective and thus are considered to be an acceptable alternative to the requirements of the closure design standards set forth in Appendix 1, Attachment D (i.e., no additional alternative determination necessary).

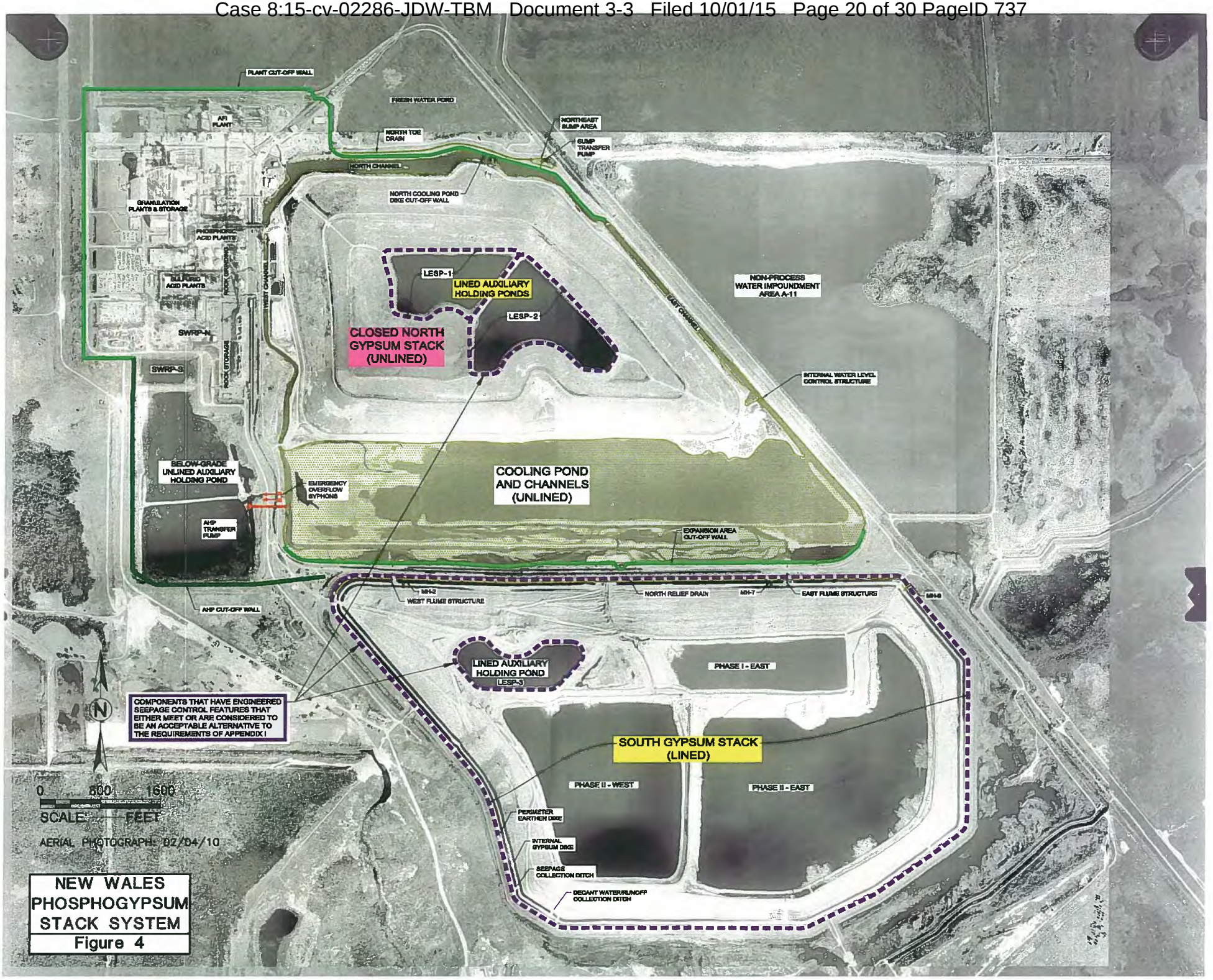
1) 41 acres of North Gypsum Stack Lined Top Gradient
2) Remainder of North Gypsum Stack Top Gradient (below lined AHPs)
3) North Gypsum Stack Side Slopes


NWC-10 MONITOR WELL CLUSTER
PLANT CUT-OFF WALL
COMPONENTS NOT SUBJECT TO LINER REQUIREMENTS OF APPENDIX I AS LONG AS THEY DO NOT RECEIVE PROCESS WASTEWATER OR PHOSPHOGYPSUM
FRESH WATER POND
NORTHEAST SUMP AREA (SUBJECT TO COMPLIANCE SCHEDULE IN ORDER TO BE AN ACCEPTABLE ALTERNATIVE
AFI PLANT
NORTH TOE DRAIN
SUMP TRANSFER PUMP
DIRECTION OF GROUNDWATER FLOW FROM PLANT SITE TOWARDS COOLING POND SYSTEM
NORTH CHANNEL
NORTH COOLING POND DIKE CUT-OFF WALL
P-ND PIEZOMETER CLUSTER
GRANULATION PLANTS & STORAGE
PHOSPHORIC ACID PLANTS
DIRECTION OF GROUNDWATER FLOW FROM A-11 TOWARDS COOLING POND SYSTEM
LESP-1
LINED AUXILIARY HOLDING PONDS
LESP-2
NON-PROCESS WATER IMPOUNDMENT AREA A-11
SULFURIC ACID PLANTS
ROCK STORAGE
WEST CHANNEL
EAST CHANNEL
COMPONENTS NOT SUBJECT TO LINER REQUIREMENTS OF APPENDIX I AS LONG AS THEY DO NOT RECEIVE PROCESS WASTEWATER OR PHOSPHOGYPSUM
SWRP-N
2013 ANOMALY
SWRP-S
CLOSED NORTH GYPSUM STACK (UNLINED)
INTERNAL WATER LEVEL CONTROL STRUCTURE
MONITOR WELL NWC-8-S1
AHP CUT-OFF WALL (SLURRY WALL EXTENSION PROJECT COMPLETED PURSUANT TO COMPLIANCE SCHEDULE)
BELOW-GRADE UNLINED AUXILIARY HOLDING POND
EMERGENCY OVERFLOW SYPHONS
COOLING POND AND CHANNELS (UNLINED)
AHP TRANSFER PUMP
P-EA PIEZOMETER CLUSTER
EXPANSION AREA CUT-OFF WALL
MONITOR WELL NWC-13-S1
DIRECTION OF SEEPAGE FROM COOLING POND SYSTEM TOWARDS UNLINED AHP
MH-2
WEST FLUME STRUCTURE
NORTH RELIEF DRAIN
MH-7
EAST FLUME STRUCTURE
MH-9
LINED AUXILIARY HOLDING POND
LESP-3
PHASE I - EAST
N
SOUTH GYPSUM STACK (LINED)
0 800 1600
SCALE FEET
PHASE II - WEST
PHASE II - EAST
AERIAL PHOTOGRAPH: 02/04/10
PERIMETER EARTHEN DIKE
INTERNAL GYPSUM DIKE
SEEPAGE COLLECTION DITCH
DECANT WATER/RUNOFF COLLECTION DITCH
NEW WALES PHOSPHOGYPSUM STACK SYSTEM
Figure 1


NEW WALES CLOSED NORTH GYPSUM STACK AND COOLING POND SYSTEM
Figure 2
NORTH TOE DRAIN
SUMP TRANSFER PUMP
NORTH CHANNEL
NORTH COOLING POND DIKE CUT-OFF WALL
NORTHEAST SUMP AREA
N
0 500 1000
SCALE: FEET
AERIAL PHOTOGRAPH: 02/04/10
LESP-1
LINED AUXILIARY HOLDING PONDS
LESP-2
WEST CHANNEL
EAST CHANNEL
CLOSED NORTH GYPSUM STACK (UNLINED)
NON-PROCESS WATER IMPOUNDMENT AREA A-11
INTERNAL WATER LEVEL CONTROL STRUCTURE
COOLING POND AND CHANNELS (UNLINED)
EMERGENCY OVERFLOW SYPHONS
AHP TRANSFER PUMP
WEST FLUME STRUCTURE
EXPANSION AREA CUT-OFF WALL
EAST FLUME STRUCTURE

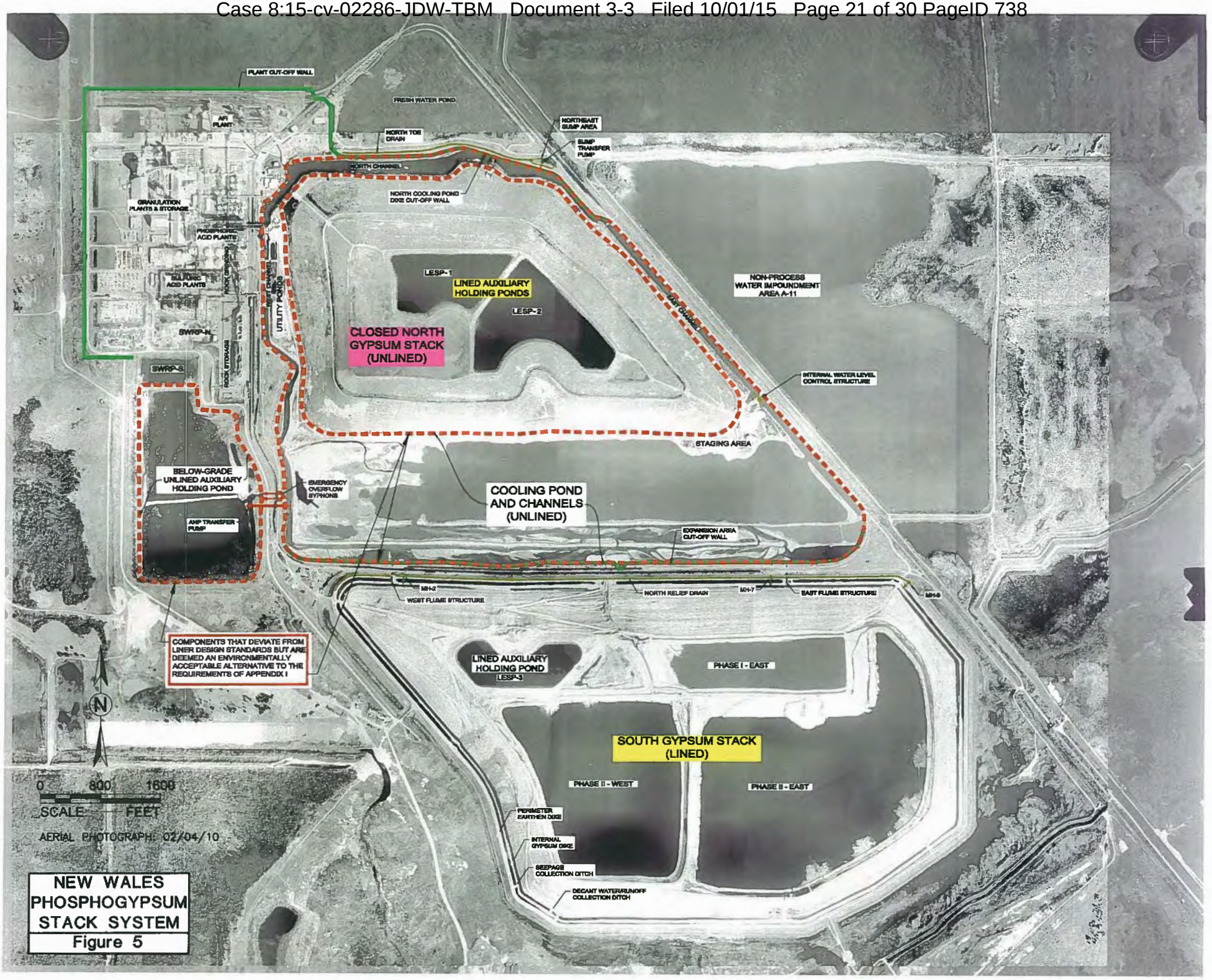


NEW WALES SOUTH STACK ASSOCIATED COMPONENTS
Figure 3



NEW WALES PHOSPHOGYPSUM STACK SYSTEM

Figure 4



NEW WALES PHOSPHOGYPSUM STACK SYSTEM

Figure 5

C. MOSAIC RIVERVIEW

Appendix 1 of this Consent Decree sets forth requirements for lining Phosphogypsum Stack Systems ("Stack Systems") within five years of the Effective Date of this Consent Decree as a means of reducing or eliminating contamination migrating from such stacks. This Appendix identifies the specific Riverview Phosphogypsum Stack System components that, subject to the terms of the Consent Decree (including Paragraph 24(b) thereof), the EPA and FDEP accept as either meeting the liner design standards of Appendix 1, Attachment C, Section VI, or being an acceptable alternative to those standards. This Appendix also identifies the specific Riverview Phosphogypsum Stack System components that either meet the closure design standards of Appendix 1, Attachment D, or are considered to be an acceptable alternative to the closure design standards of Appendix 1, Attachment D. The EPA and FDEP's acceptance of Mosaic's description of the Riverview Phosphogypsum Stack System and non-Phosphogypsum Stack System components below does not bind the EPA or the FDEP to the factual information below.

General Description

The Riverview Phosphogypsum Stack System consists of the Closed Phosphogypsum Stack (Closed Stack) and its associated system components, as well as the Northeast Phosphogypsum Stack (Northeast Stack), the Phosphogypsum Stack Expansion (Stack Expansion), the lined cooling pond system, and associated stack system components (Figure 1). Mosaic has identified other water bodies existing at Riverview that are not part of the Phosphogypsum Stack System.

The Closed Stack no longer receives Phosphogypsum and, therefore, is exempt from the liner requirements. The Closed Stack-associated components include a lined auxiliary holding pond on top of the Closed Stack (Figure 1).

The Northeast Gypsum Stack was constructed with an 18-inch thick compacted bottom clayey soil liner that predated the Florida Phosphogypsum Management Rule, and at the time was deemed to be adequately protective and approved by FDEP as such. The Stack is contemplated to be constructed in phases. Its current elevation is the maximum for the existing stage, and therefore the Stack is not currently actively used for Phosphogypsum disposal. It currently is used only for Process Wastewater management.

The lined Stack Expansion is constructed south of and extends on top of the south slope of the Northeast Stack. When the Stack Expansion reaches the crest elevation of the Northeast Stack, the Northeast Stack top area will be lined with a 60-mil liner and the Expanded Phosphogypsum Stack (consisting of the combined Stack Expansion and lined vertical expansion atop the Northeast Stack) will be raised to the final design elevation.

The Stack Expansion and Expanded Stack-associated components include a lined cooling pond system. The HDPE-clay composite and/or HDPE/compacted gypsum inverted composite lined

cooling pond system consists of a lined Cooling Pond south of the Stack Expansion and a 32-acre cooling pond adjacent to the chemical facility. In addition, a 15-acre Lime Sludge Area with a bottom clayey soil liner (formerly part of the cooling pond) receives seepage but is currently not actively used for process water storage and as such installation of a planned HDPE inverted composite liner in this area has been deferred. The Lime Sludge Area will be lined with an inverted composite liner (80-mil HDPE covered with 2 feet of compacted gypsum) prior to incorporating it into a future Phosphogypsum Stack expansion and/or the Cooling Pond (Figure 1) and, in any event, within 5 years of the Effective Date. The slopes below Elevation 140 feet (NGVD) and the toe swale on the north, east and west walls of the Northeast Stack are closed. The toe swale has a grassed soil-covered 40-mil HDPE liner, and the stack slopes have a grassed soil cover.

Two triangular areas located on the west side of the Stack Expansion were originally a part of the main Cooling Pond, but were later closed and removed from the stack system watershed.

Soil Bentonite Cut-Off Walls

Northeast Phosphogypsum Stack
The Northeast Phosphogypsum Stack has a 2.5-foot wide slurry wall that was keyed 3 feet into the underlying clayey deposit of the Hawthorn Group at typical depths of 10 to 15 feet below natural grade to control lateral seepage from the stack. The location of the slurry wall is designated by the green line in Figure 1.

Phosphogypsum Stack Expansion
The Phosphogypsum Stack Expansion, which was constructed mostly within the northern compartments of the former 238-acre cooling pond, is enclosed by the 2.5-foot wide slurry wall that was constructed along the perimeter dike crest of the original 238-acre cooling pond. The slurry wall was keyed 3 feet into the underlying clayey deposit of the Hawthorn Group at typical depths of 10 to 15 feet below natural grade. The location of the slurry wall is designated by the green line in Figure 1.

Cooling Pond
The northern part of the Cooling Pond (including the Lime Sludge Area which is not currently actively used for process water storage but receives seepage from the stack system), was constructed mostly within the southern compartments of the former 238-acre cooling pond, and is enclosed by the 2.5-foot wide slurry wall that was constructed along the perimeter dike crest of the original 238-acre cooling pond. The slurry wall was keyed 3 feet into the underlying clayey deposit of the Hawthorn Group at typical depths of 10 to 15 feet below natural grade. The location of the slurry wall is designated by the green line in Figure 1.

Closed Phosphogypsum Stack
The Closed Phosphogypsum Stack has a 2.5-foot wide slurry wall along its north and west boundaries that was keyed 3 feet into the underlying clayey deposit of the Hawthorn Group at typical depths of 10 to 15 feet below natural grade. The location of the slurry wall is designated by the green line in Figure 1.

Synthetic and Clay Liners

Northeast Gypsum Stack
The Northeast Gypsum Stack, which was constructed prior to enactment of the Phosphogypsum Management Rule in the State of Florida (i.e., Rule 62-673 Florida Administrative Code), was constructed with an 18-inch thick compacted bottom clayey soil liner installed in 6-inch lifts for control of vertical seepage, with measured saturated hydraulic conductivities less than $1.0x10^{-8}$ cm/sec. A series of lateral drains were installed above the bottom clayey soil liner at the base of the gypsum stack along with a sand blanket drain near the toe to collect stack seepage. A toe drain was installed during closure of the toe swale to collect all seepage in the stack seepage collection concrete sump for pumping to the cooling pond

Phosphogypsum Stack Expansion
The Phosphogypsum Stack Expansion has: (i) an inverted composite liner system at its base consisting of an 80-mil high density polyethylene (HDPE liner) and 2 feet of compacted gypsum placed over the geomembrane with a saturated hydraulic conductivity less than $1.0x10^{-4}$ cm/sec; and (ii) a 60-mil HDPE liner placed on the south slope of the Northeast Stack currently installed to an elevation of approximately 157 feet (NGVD) that will be extended upslope in phases up to the crest of the Northeast Gypsum Stack.

32-Acre Cooling Pond
The 32-acre cooling pond has an inverted composite liner system consisting of an 80-mil HDPE liner and 2 feet of compacted gypsum cover with a saturated hydraulic conductivity of less than $1.0x10^{-4}$ cm/sec.

Cooling Pond
With the exception of an approximately 15-acre lime sludge area that has a compacted clay liner at its base, the northern portion of the cooling pond has an inverted composite liner system consisting of an 80-mil HDPE liner and 2 feet of compacted gypsum cover with a saturated hydraulic conductivity of less than $1.0x10^{-4}$ cm/sec. The southern portion of the cooling pond has a composite liner system consisting of an 80-mil HDPE liner underlain by a 12-inch thick compacted clay liner with a saturated hydraulic conductivity of less than $1.0x10^{-7}$ cm/sec.

Closed Phosphogypsum Stack
The Closed Phosphogypsum Stack has a grassed soil cover over its side slopes and a grassed soil cover over the 40-mil HDPE liner installed atop the southern 10-acre area of the stack top grade. The only area atop the stack not covered with soil and grass is the 80-mil HDPE-lined auxiliary holding pond situated atop the Closed Phosphogypsum Stack (Figure 1).

Lined Floating Ditch
The “Lined Floating Ditch” connecting the chemical plant to the lined 32-acre cooling pond was lined by Mosaic in 2011 (pursuant to a plan approved by FDEP) with an 80-mil HDPE liner and completely covered with 6-inch concrete fabriform. The HDPE liner was tied into the 32-acre cooling pond liner (Figure 1).

Liner Requirements for Specific Components of the Stack System and for Other Water Features

The following components or former components generally designated by red lines in Figure 2 of Mosaic's Riverview Stack System are not subject to the lining requirements of Appendix 1, Attachments C and D, as long as they do not hereafter receive Process Wastewater or Phosphogypsum.

1) Northeast Stack Closed Slopes below El 140 feet (NGVD) on the north, east and west sides, and Northeast Stack Slopes above El 140 ft (NGVD) on the north, east and west sides that currently are scheduled to be closed in 2016.
2) Closed Phosphogypsum Stack (except for lined Auxiliary Holding Pond).
3) Closed Triangular Areas West of the Stack Expansion.
4) North Stormwater Pond
5) Staging Area

The following components of Mosaic's Riverview Stack System designated in purple in Figure 3 have existing engineered seepage control features that, as installed, either meet the liner design standards of Appendix 1, Attachment C, Section VI or are considered by EPA and FDEP to be environmentally protective and thus considered to be an acceptable alternative to the liner design standards of Appendix 1, Attachment C, Section VI (i.e. no additional equivalency determination necessary).

1) Phosphogypsum Stack Expansion (including lined South Slope of Northeast Stack below Elevation 157 ft (NGVD))
2) Lined 32-Acre Cooling Pond
3) Lined Cooling Pond (with the exception of 15-acre Lime Sludge Area)
4) Lined Auxiliary Holding Pond
5) Lined Floating Ditch
6) Crescent Pond (lined sump)

The 15-Acre Lime Sludge Area designated by dark blue lines in Figure 4 does not fully conform to the liner design standards set forth in Appendix 1, Attachment C, Section VI, but once Mosaic implements the 15-Acre Lime Sludge Area project as set forth in Appendix 6 (RCRA Project Narrative & Compliance Schedule), it will have additional seepage control features that, when installed, will meet or exceed the liner design standards of Appendix 1, Attachment C, Section VI.

The following clayey soil lined component of Mosaic's Riverview Stack System designated by dark blue lines in Figure 4 does not fully conform to the liner design standards of Appendix 1, Attachment C, Section VI. However, upon placement of a synthetic liner as required below, it will be acceptable alternative to the requirements of Appendix 1, Attachment C, Section VI (i.e. no additional equivalency determination necessary).

1) Northeast Phosphogypsum Stack South Slope (above Elevation 157 ft (GVD), i.e., excluding the current lined slope area) and Northeast Phosphogypsum Stack Top Area at the Current

Crest Elevation, provided a synthetic liner is placed on the south slope and on top of the stack prior to disposal of any Phosphogypsum on these areas.

The following component of Mosaic's Riverview Stack System referenced in Figure 1 does not fully conform to the liner design standards of Appendix 1, Attachment C, Section VI but is considered to be environmentally protective and thus an acceptable alternative to the requirements of Appendix 1, Attachment C, Section VI (i.e. no additional equivalency determination necessary).

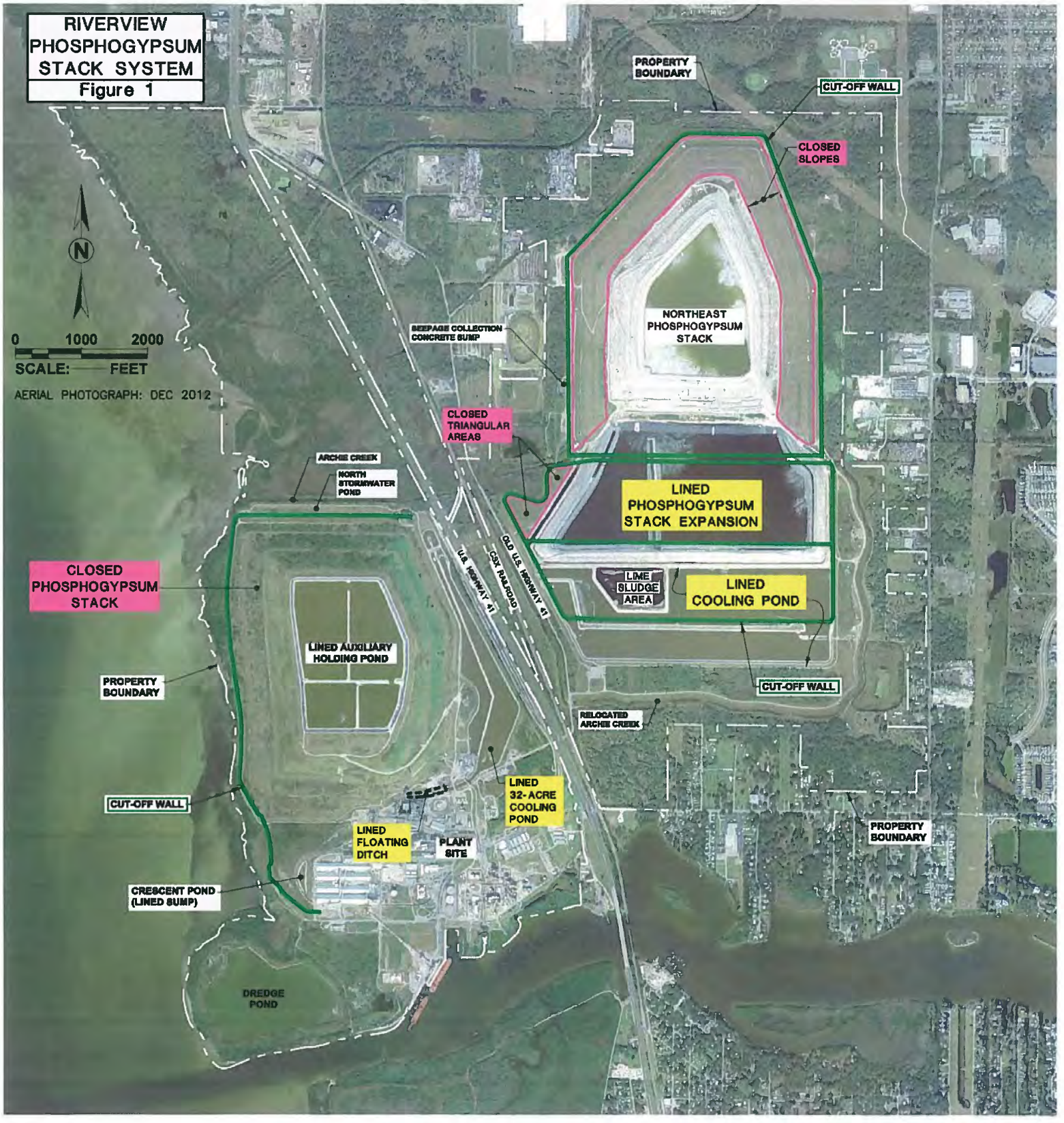
1) Seepage Collection Concrete Sump, with a 60-mil HDPE lined overflow area to the south, located west of the Northeast Phosphogypsum Stack.

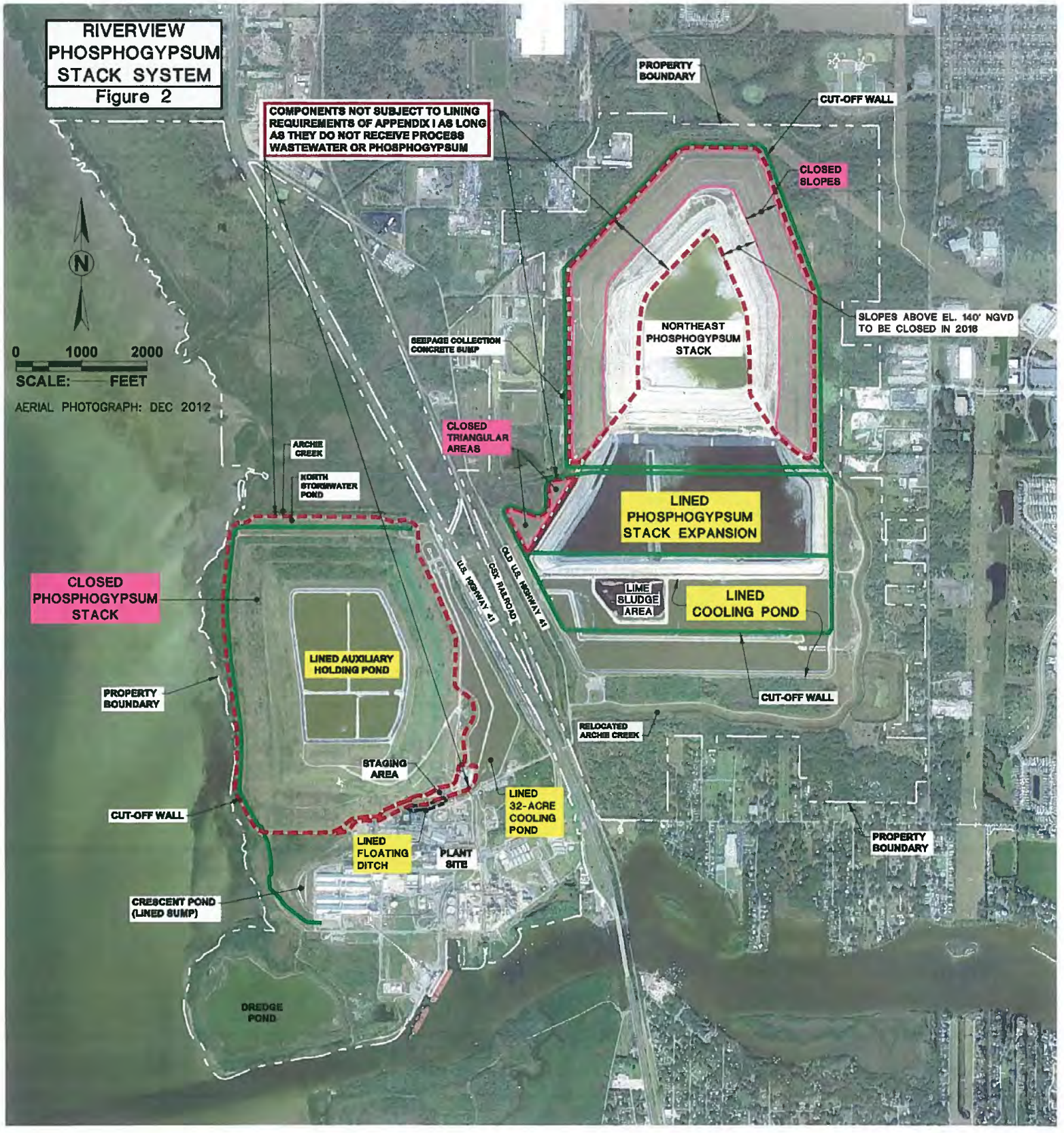
Closed Components of Stack System

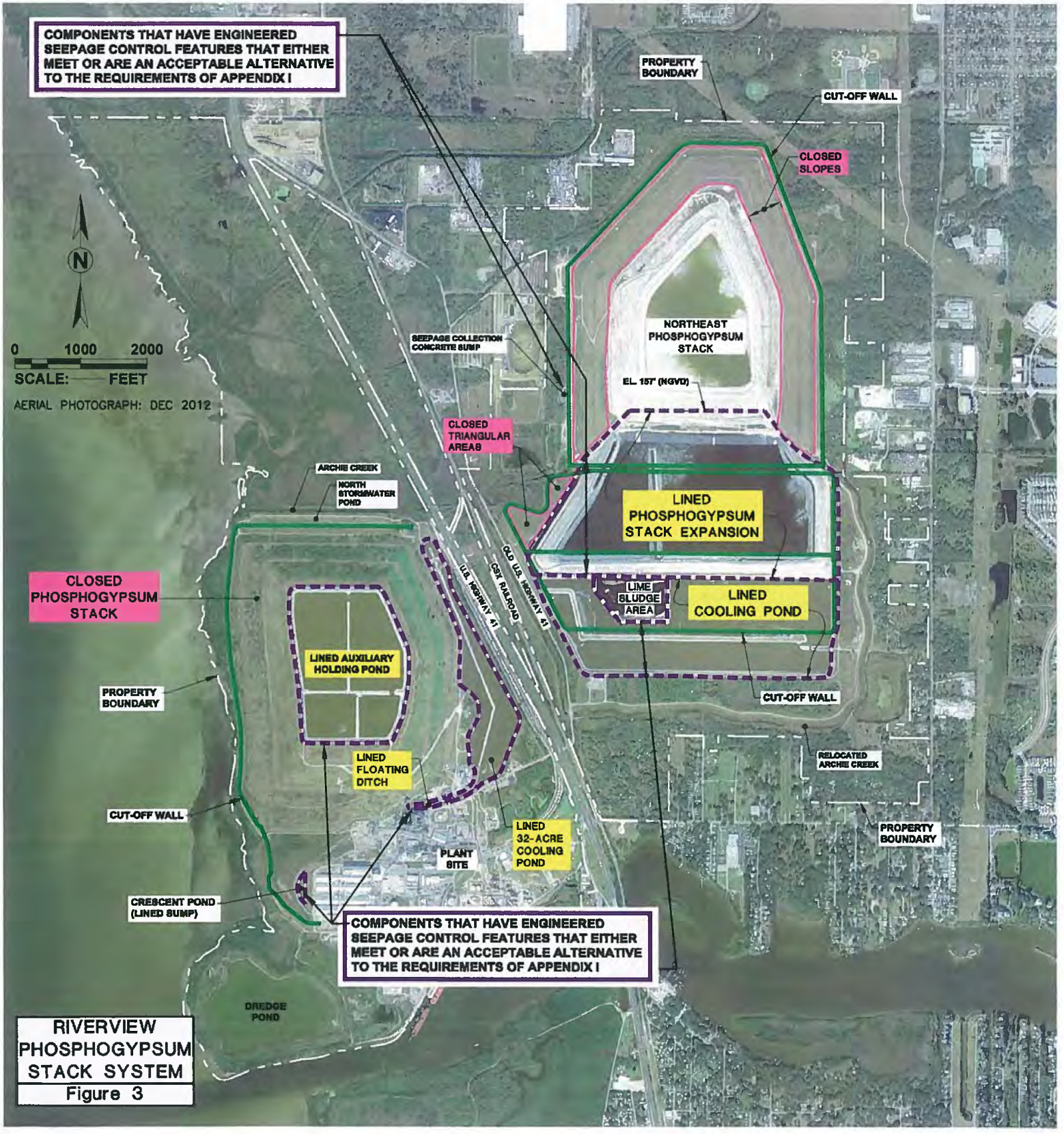
The following components of Mosaic's Riverview Stack System referenced in Figure 1 have existing engineered closure covers that, as installed, either meet the closure design standards of Appendix 1, Attachment D, or are determined to be environmentally protective and thus are considered to be an acceptable alternative to the requirements of the closure design standards set forth in Appendix 1, Attachment D (i.e., no additional alternative determination necessary).

1) Closed Phosphogypsum Gypsum Stack Top Gradient (10-acre area south of AHP and below the lined AHP) and Closed Phosphogypsum Gypsum Stack Side Slopes.
2) Northeast Phosphogypsum Stack Slopes below El 140 feet (NGVD) on the north, east and west sides, including the Perimeter Toe Swale on the north, east and west sides of the Northeast Phosphogypsum Stack. (Northeast Phosphogypsum Stack Slopes above El 140 feet (NGVD) on the north, east and west sides currently scheduled to be closed in 2016.)

3) Triangular Areas West of Phosphogypsum Stack Expansion.

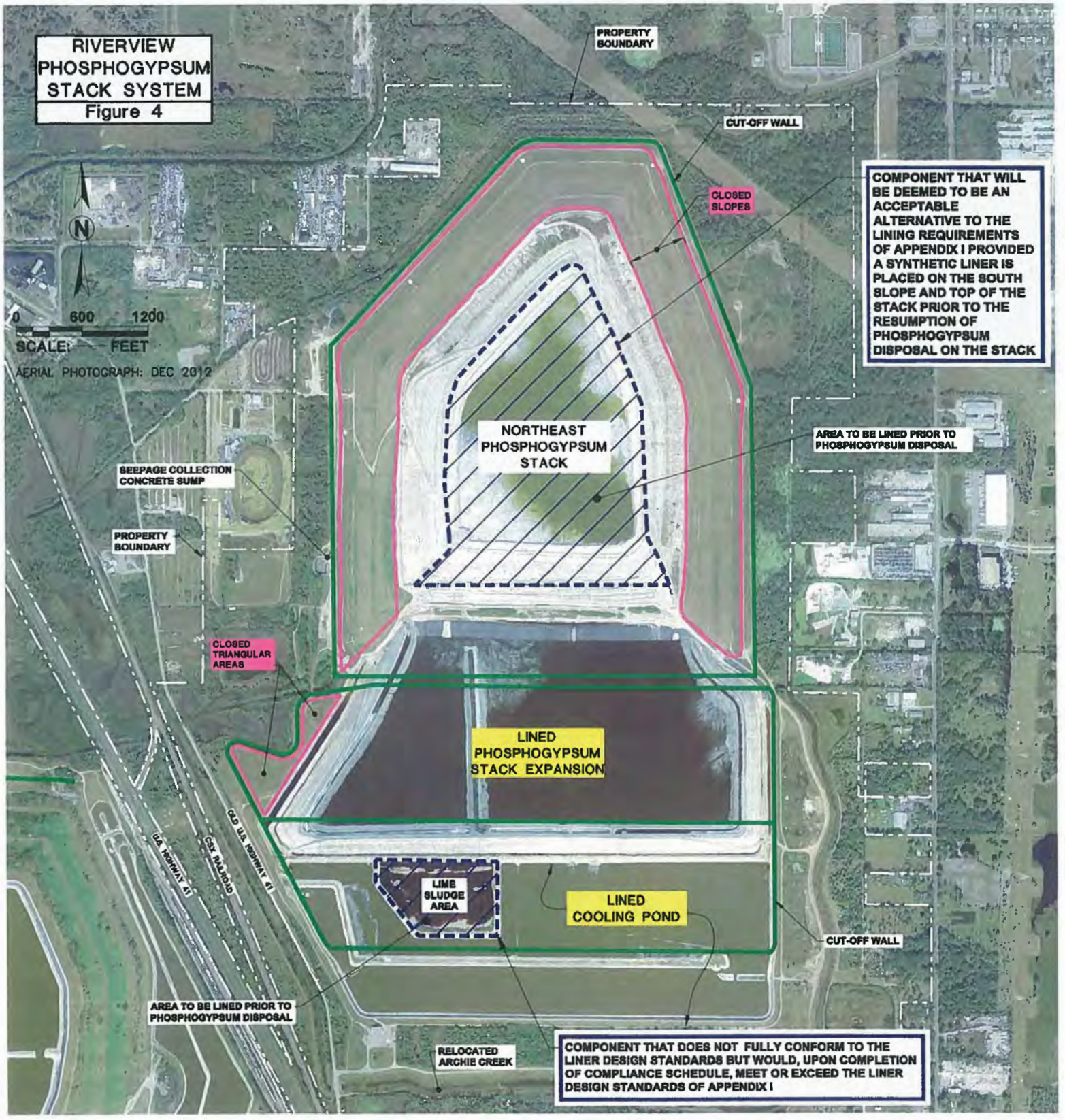

RIVERVIEW
PHOSPHOGYPSUM
STACK SYSTEM
Figure 1
N
0 1000 2000
SCALE: FEET
AERIAL PHOTOGRAPH: DEC 2012
PROPERTY BOUNDARY
CUT-OFF WALL
CLOSED SLOPES
NORTHEAST PHOSPHOGYPSUM STACK
SEEPAGE COLLECTION CONCRETE SUMP
CLOSED TRIANGULAR AREAS
ARCHIE CREEK
NORTH STORMWATER POND
LINED PHOSPHOGYPSUM STACK EXPANSION
CLOSED PHOSPHOGYPSUM STACK
U.S. HIGHWAY 41
CSX RAILROAD
OLD U.S. HIGHWAY 41
LIME SLUDGE AREA
LINED COOLING POND
LINED AUXILIARY HOLDING POND
PROPERTY BOUNDARY
CUT-OFF WALL
RELOCATED ARCHIE CREEK
LINED 32-ACRE COOLING POND
CUT-OFF WALL
LINED FLOATING DITCH
PLANT SITE
PROPERTY BOUNDARY
CRESCENT POND (LINED SUMP)
DREDGE POND


RIVERVIEW PHOSPHOGYPSUM STACK SYSTEM
Figure 2
COMPONENTS NOT SUBJECT TO LINING REQUIREMENTS OF APPENDIX I AS LONG AS THEY DO NOT RECEIVE PROCESS WASTEWATER OR PHOSPHOGYPSUM
PROPERTY BOUNDARY
CUT-OFF WALL
CLOSED SLOPES
SLOPES ABOVE EL. 140' NGVD TO BE CLOSED IN 2016
NORTHEAST PHOSPHOGYPSUM STACK
SEEPAGE COLLECTION CONCRETE SUMP
CLOSED TRIANGULAR AREAS
ARCHIE CREEK
NORTH STORMWATER POND
LINED PHOSPHOGYPSUM STACK EXPANSION
LIME SLUDGE AREA
LINED COOLING POND
CUT-OFF WALL
CLOSED PHOSPHOGYPSUM STACK
LINED AUXILIARY HOLDING POND
PROPERTY BOUNDARY
U.S. HIGHWAY 41
CSX RAILROAD
OLD U.S. HIGHWAY 41
RELOCATED ARCHIE CREEK
STAGING AREA
LINED 32-ACRE COOLING POND
CUT-OFF WALL
LINED FLOATING DITCH
PLANT SITE
PROPERTY BOUNDARY
CRESCENT POND (LINED SUMP)
DREDGE POND
N
0 1000 2000
SCALE: FEET
AERIAL PHOTOGRAPH: DEC 2012



RIVERVIEW PHOSPHOGYPSUM STACK SYSTEM

Figure 3


RIVERVIEW
PHOSPHOGYPSUM
STACK SYSTEM
Figure 4
N
0 600 1200
SCALE: FEET
AERIAL PHOTOGRAPH: DEC 2012
PROPERTY BOUNDARY
CUT-OFF WALL
CLOSED SLOPES
COMPONENT THAT WILL BE DEEMED TO BE AN ACCEPTABLE ALTERNATIVE TO THE LINING REQUIREMENTS OF APPENDIX I PROVIDED A SYNTHETIC LINER IS PLACED ON THE SOUTH SLOPE AND TOP OF THE STACK PRIOR TO THE RESUMPTION OF PHOSPHOGYPSUM DISPOSAL ON THE STACK
NORTHEAST PHOSPHOGYPSUM STACK
AREA TO BE LINED PRIOR TO PHOSPHOGYPSUM DISPOSAL
SEEPAGE COLLECTION CONCRETE SUMP
PROPERTY BOUNDARY
CLOSED TRIANGULAR AREAS
LINED PHOSPHOGYPSUM STACK EXPANSION
OLD U.S. HIGHWAY 41
U.S. HIGHWAY 41
CSX RAILROAD
LIME SLUDGE AREA
LINED COOLING POND
CUT-OFF WALL
AREA TO BE LINED PRIOR TO PHOSPHOGYPSUM DISPOSAL
RELOCATED ARCHIE CREEK
COMPONENT THAT DOES NOT FULLY CONFORM TO THE LINER DESIGN STANDARDS BUT WOULD, UPON COMPLETION OF COMPLIANCE SCHEDULE, MEET OR EXCEED THE LINER DESIGN STANDARDS OF APPENDIX I

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF FLORIDA

UNITED STATES OF AMERICA,	)	
	)	
and	)	
	)	
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION,	)	
	)	
Plaintiffs,	)	Civil Action No. 8:15-cv-02286-JWD-TBM
	)	
v.	)	
	)	
MOSAIC FERTILIZER, LLC,	)	
	)	
Defendant.	)	

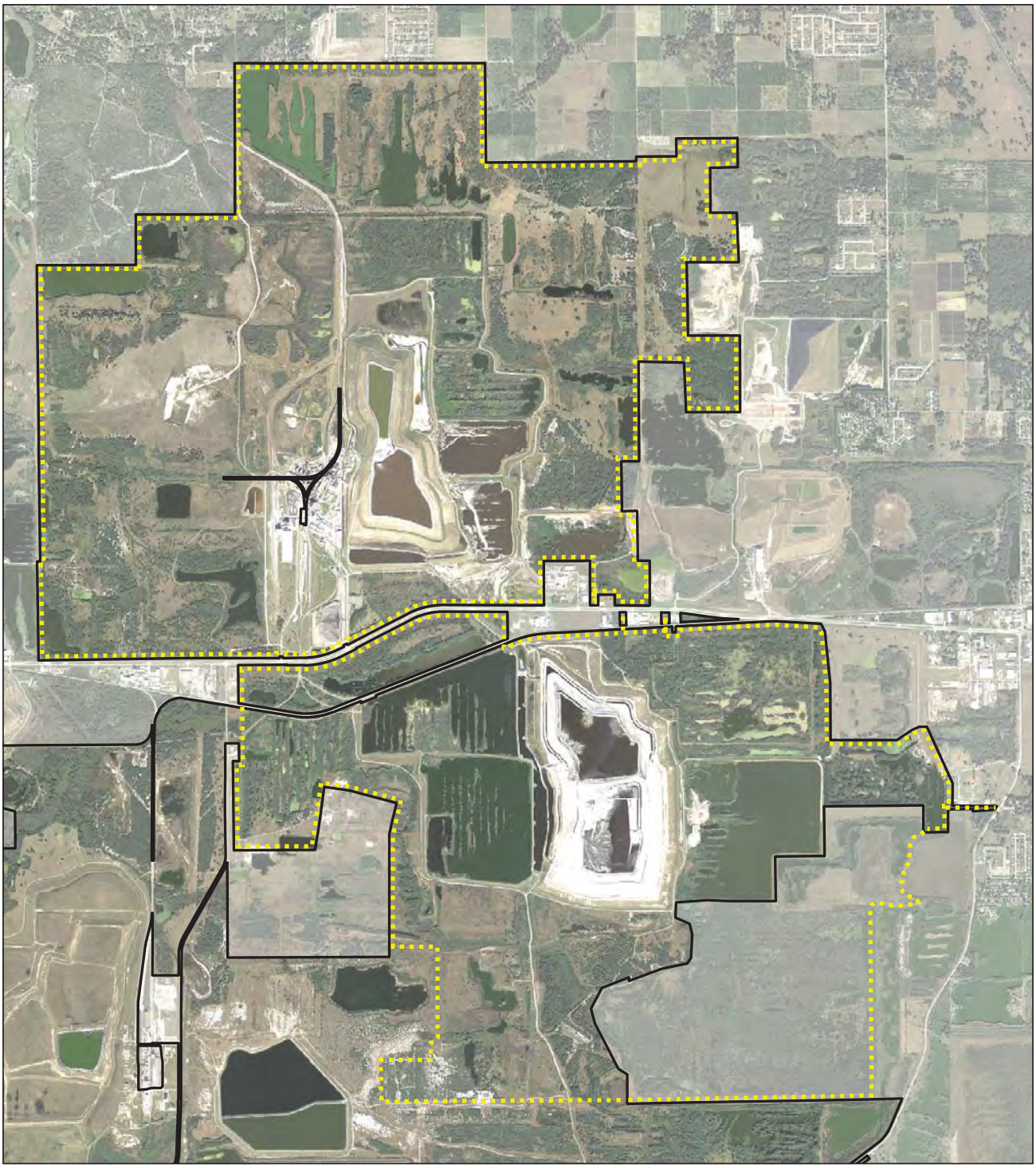
Appendices to the Proposed Consent Decree

Exhibit 4 of 4

Appendix 8

APPENDIX 8

Bartow ZOD



Legend

- Zone of Discharge
- Mosaic Owned Property
- Not Owned by Mosaic

Mosaic Aerial Photograph December 2014

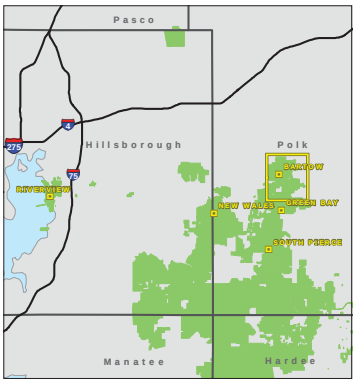
Mosaic

N
W E
S

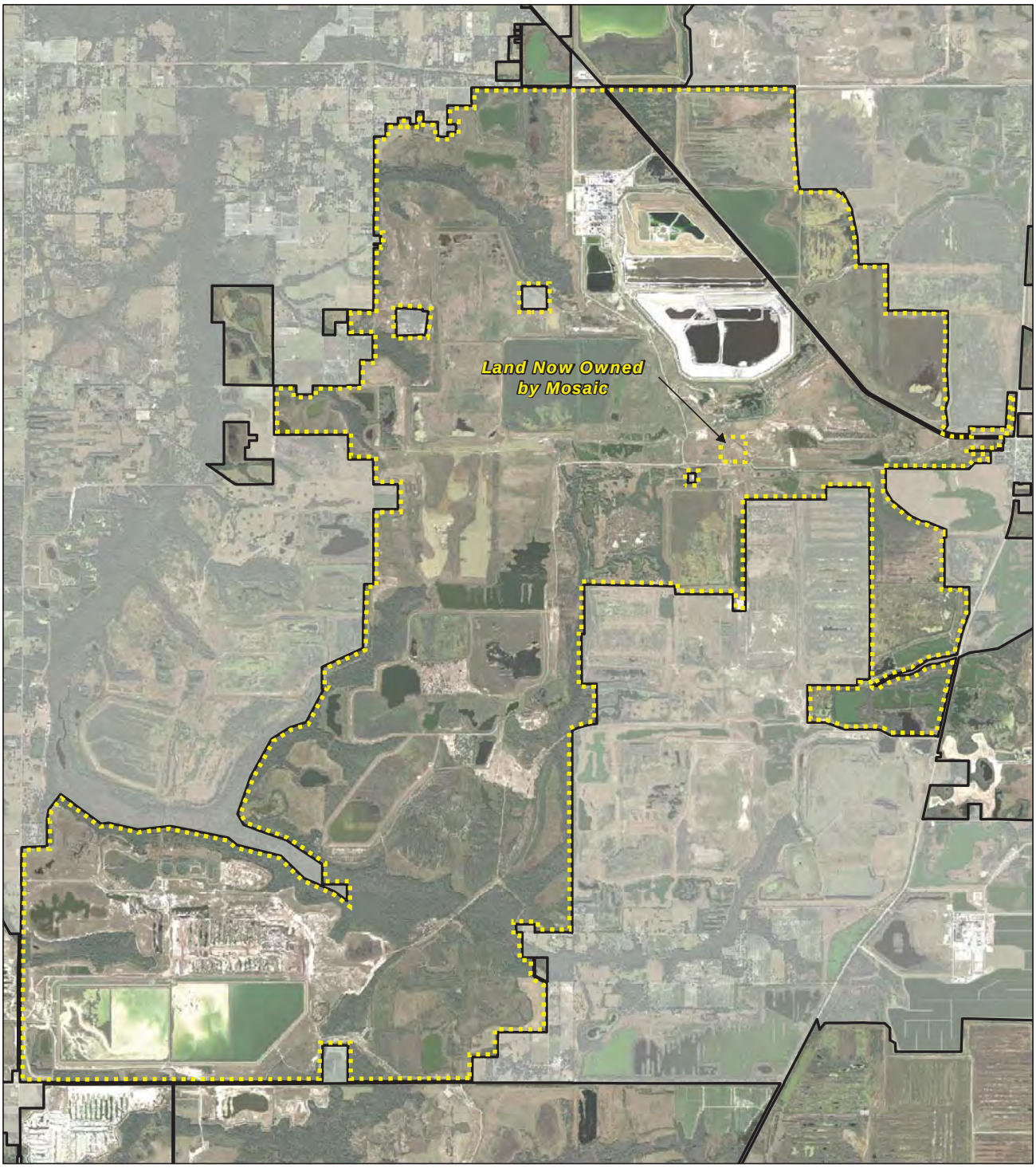
0 0.5 1
Miles

User: jwh Date: 3/3/2015 Path: G:\projects\2015\2015_0012\maps\Bartow_ZOD.mxd

Location Key



New Wales ZOD



Legend

- Zone of Discharge
- Mosaic Owned Property
- Not Owned by Mosaic

Mosaic Aerial Photograph December 2014

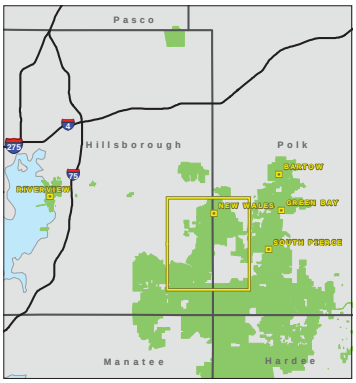
Mosaic

N
W E
S

0 0.5 1
Miles

User: jwh/djr Date: 9/10/2015 Path: G:\projects\2015\2015_0012\maps\New_Wales_ZOD.mxd

Location Key



Riverview ZOD

Legend

- Zone of Discharge
- Mosaic Owned Property
- Not Owned by Mosaic

Mosaic Aerial Photograph December 2014
Note: Map does not show Submerged Lands.

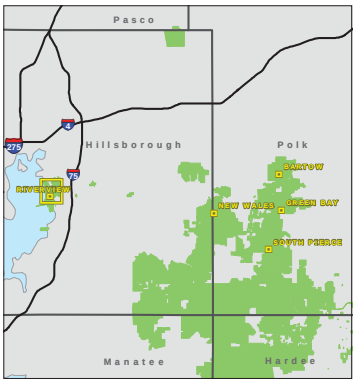
Mosaic

N
W E
S

0 0.25 0.5
Miles

User: jwh/djr Date: 9/10/2015 Path: G:\projects\2015\2015_0012\maps\Riverview_ZOD.mxd

Location Key



APPENDIX 9

Appendix 9

Supplemental Environmental Project Description

As the Supplemental Environmental Project (SEP) required under Paragraph 39 of this Consent Decree, Mosaic shall implement the following project to mitigate and prevent certain potential environmental impacts associated with seepage emanating from areas abutting closed components of the Phosphogypsum Stack System at the facility formerly owned and operated by Mulberry Phosphates Inc., located in Mulberry, Florida (the "Mulberry Facility").

Mosaic's performance and satisfactory completion of this project shall be as determined based on inspection and project oversight to be provided by the Florida Department of Environmental Protection (Department). Based on the Department's review of options for eliminating or preventing the seepage emanation discussed herein, the Department believes the value of this SEP to the State of Florida is in excess of $1,200,000. Mosaic has previously voluntarily agreed, pursuant to Department Contract No. EXC005, to undertake closure activities on behalf of the Department at the Mulberry Facility. The project described herein is not addressed by existing contracts or agreements between Mosaic and the Department.

I. Project Description:

Following closure of the South Cooling Pond ("SCP") of the Mulberry Phosphogypsum Stack System, rainfall infiltration in an abutting parcel of land caused lateral seepage of historically contaminated ground water to rise and emanate from the ground surface in a location just east of the at the northeast corner of the closed SCP. Such contaminated ground water, once emanating at the ground surface, would no longer be captured by the buried collection drains constructed for closure of the Mulberry Facility, resulting in an otherwise preventable source of nutrients and other surface water pollutants in the Alafia River and Tampa Bay watersheds. In order to mitigate and prevent potential contamination of surface water runoff that would otherwise be discharged through the Mulberry Facility's NPDES permitted outfall, the following tasks will be performed by Mosaic:

1. Perform engineering services (and related permitting, administrative, and other tasks) for site investigations, basic and detailed design, construction QA/QC, construction inspection, and certification of the completed works
2. Provide engineering staff to perform onsite project construction management.
3. Following the Department's approval of the basic and detailed designs under this SEP, Mosaic shall then commence construction activities under this SEP as follows:
    a. Install an additional underdrain system, including a seepage conveyance system to intercept and collect impacted seepage that would otherwise emanate from the ground surface as described above.
    b. Provide earthen fill and re-grade the impacted construction area to meet the corresponding approved design grade.
    c. Install an HDPE liner and protective cover at the northeast corner of the SCP, to design grade, that would be tied into the existing SCP HDPE liner, to control infiltration in this area.
    d. Perform limited cut/fill in the adjacent area to match the design grade, promote positive drainage of stormwater away from the SCP and minimize rainfall infiltration that would affect groundwater levels and otherwise contribute to the referenced groundwater seepage.
4. Perform hydraulic calculations and reconfigure (if needed in accordance with the detailed design) Outfall 001F, and the associated conveyance structure to meet design flow requirements.

5. Re-grass and provide maintenance as may be needed to establish a stabilized vegetative cover for the disturbed project construction area, for a minimum of nine months from the end of the associated construction activities.

II. Environmental Benefit:

Completion of the above tasks are expected to mitigate and prevent future contamination to surface water runoff with nutrients and other contaminants that would otherwise cause pollutions of stormwater runoff within the Alafia River and Tampa Bay contributing watersheds.

III. Performance Schedule:

Within 90 days from the Effective Date of this Consent Decree, Mosaic will finalize a work plan and schedule to implement the project outlined above for the Department's review and approval. Such schedule shall include a milestone for the Department's separate approval of detailed design plans, prior to Mosaic's commencement of installation for the additional underdrain system under this SEP. Such schedule shall provide for the completion of the tasks in Section I.1 - I.4 within 1.5 years of the Effective Date of this Consent Decree.

Following the Department's approval of such final work plan, Mosaic shall implement the work plan in accordance with the design, associated specifications, and the schedule incorporated therein. Any changes required to the work plan, or its implementation schedule shall be agreed upon by Mosaic and the Department. Within 90 Days of completion of the tasks in Section I.1 - I.4, Mosaic will provide the Department with as-built construction drawings and a Certification of Construction Completion for the works under this SEP.