

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON

UNITED STATES OF AMERICA,)
)
 Plaintiff,)
)
 v.)
)
 Trident Seafoods Corporation,)
 Royal Viking, Inc., and)
 Golden Dawn, LLC,)
)
 Defendants.)
_____)

Civil Action No. 2:19-cv-231

CONSENT DECREE

Consent Decree:
United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611
(202) 305-0302

Table of Contents

I. JURISDICTION AND VENUE..... 2
II. APPLICABILITY..... 2
III. DEFINITIONS..... 7
IV. CIVIL PENALTY..... 11
V. COMPLIANCE REQUIREMENTS..... 13
VI. RETROFITS OF LARGE APPLIANCES WITH A FULL CHARGE OF 5,000
OR MORE POUNDS OF CLASS I OR CLASS II REFRIGERANT..... 26
VII. SUPPLEMENTAL ENVIRONMENTAL PROJECT..... 27
VIII. ANNUAL REFRIGERANT LOSS CAP PROGRAM..... 30
IX. THIRD PARTY VERIFICATION..... 38
X. APPROVAL OF DELIVERABLES..... 46
XI. REPORTING REQUIREMENTS..... 47
XII. PETITIONS..... 51
XIII. STIPULATED PENALTIES..... 52
XIV. FORCE MAJEURE..... 59
XV. DISPUTE RESOLUTION..... 61
XVI. INFORMATION COLLECTION AND RETENTION..... 63
XVII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS..... 65
XVIII. COSTS 67
XIX. NOTICES..... 67
XX. EFFECTIVE DATE..... 68
XXI. RETENTION OF JURISDICTION..... 69
XXII. MODIFICATION..... 69
XXIII. TERMINATION 69
XXIV. PUBLIC PARTICIPATION..... 72
XXV. SIGNATORIES/SERVICE..... 73
XXVI. INTEGRATION..... 73
XXVII. FINAL JUDGMENT 74
XXVIII. 26 U.S.C. SECTION 162(f)(2)(A)(ii) IDENTIFICATION... 74
XXIX. APPENDIX..... 74

1 Whereas, Plaintiff United States of America, on behalf of the United States
2 Environmental Protection Agency (“EPA”), has filed a complaint in this action concurrently with
3 this Consent Decree, alleging that Defendants Trident Seafoods Corporation (“Trident”), Royal
4 Viking, Inc., and Golden Dawn, LLC, violated regulations set forth in 40 C.F.R. Part 82, Subpart
5 F, and promulgated by EPA pursuant to Title VI of the Clean Air Act (“CAA” or “Act”), 42
6 U.S.C. §§ 7671-7671q;

7 Whereas, pursuant to an Information Request issued under CAA Section 114, 42 U.S.C.
8 § 7414, EPA obtained information from Trident concerning its compliance with Title VI of the
9 CAA, 42 U.S.C. §§ 7671-7671q, at its vessels and facilities through March 31, 2016;

10 Whereas, the Complaint against Defendants alleges that Defendants have failed to
11 comply with Title VI of the CAA, and the regulations set forth in 40 C.F.R. Part 82, Subpart F,
12 because they failed to repair leaks in their commercial and industrial process refrigeration
13 appliances, failed to perform initial and/or follow-up verification tests on leaking industrial
14 process refrigeration appliances, did not maintain adequate records of service performed on their
15 appliances, did not have legally required, certified refrigerant recovery or recycling equipment,
16 and had service performed on their refrigeration appliances by uncertified technicians;

17 Whereas, the Parties recognize, and the Court by entering the Consent Decree finds, that
18 the Consent Decree has been negotiated by the Parties in good faith and will avoid litigation
19 between the Parties and that the Consent Decree is fair, reasonable, and in the public interest.

20 NOW, THEREFORE, with the consent of the Parties, IT IS HEREBY ADJUDGED,
21 ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1
2 1. This Court has jurisdiction over the subject matter of this action, pursuant to
3 28 U.S.C. §§ 1331, 1345, and 1355, and Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and
4 over the Parties. Venue lies in this District pursuant to Section 113(b) of the CAA, 42 U.S.C.
5 § 7413(b), and 28 U.S.C. §§ 1391(b) and 1395(a), because Defendants Trident Seafoods
6 Corporation, Royal Viking, Inc. and Golden Dawn, LLC reside and maintain corporate
7 headquarters in this judicial district and all Defendants are doing business in this judicial district.
8 For purposes of the Decree, or any action to enforce the Decree, Defendants consent to the
9 Court's jurisdiction over the Decree and any such action and over Defendants and consent to
10 venue in this judicial district.

11 2. For purposes of the Consent Decree, Defendants agree that the Complaint states
12 claims upon which relief may be granted pursuant to Sections 113(b) and 608 of the CAA, 42
13 U.S.C. §§ 7413(b) and 7671g.

14 II. APPLICABILITY

15 3. The obligations of the Consent Decree apply to and are binding upon the United
16 States and upon Defendants and any successors, assigns, or other entities or persons otherwise
17 bound by law.

18 4. The following procedures shall govern transfers of ownership and/or operation of
19 Obligated Vessels, and any attempt to transfer ownership and/or operation of an Obligated
20 Vessel without complying with this Paragraph constitutes a violation of this decree.

21 a. At least sixty (60) Days before any transfer of ownership and/or operation
22 of an Obligated Vessel, relevant Defendants shall advise the person to whom Defendants intend
23 to transfer ownership and/or operation of an Obligated Vessel (Transferee) in writing of the

Consent Decree:
United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611
(202) 305-0302

1 existence of this Consent Decree and provide a copy of this Consent Decree to the Transferee,
2 and shall simultaneously provide the United States in accordance with Section XIX (Notices) of
3 this Consent Decree with a copy of such written notification as well as the proposed transfer
4 agreement.

5 b. In their notice to the United States, Defendants shall indicate whether they
6 intend to request: (1) to be relieved of the obligations of the Consent Decree with respect to that
7 Obligated Vessel without a Substitution of the Transferee for the Defendants, pursuant to
8 Paragraph 5.a below; or (2) to substitute the Transferee for the Defendants in this Consent
9 Decree as to obligations concerning the transferred Obligated Vessel (a Substitution), pursuant to
10 Paragraph 5.b below; or (3) to remain responsible for compliance with this Consent Decree as to
11 the transferred Obligated Vessel pursuant to Paragraph 5.c below.

12 c. The Defendants shall give EPA the opportunity to inspect the to-be-
13 transferred Obligated Vessel.

14 5. Defendants shall be relieved of their obligations under this Consent Decree as to
15 the transferred Obligated Vessel only where the following requirements of Paragraphs 5.a or 5.b
16 below are satisfied.

17 a. Relief from Consent Decree Obligations without a Substitution.

18 Defendants may be relieved from the obligations in this Consent Decree without a Substitution
19 only where the relevant Defendant:

20 (1) Transfers both ownership and operation of the Obligated Vessel to an
21 entity that is not related to the Defendants; and

22
23

1 (2) Demonstrates and certifies that all Large Appliances at the Obligated
2 Vessel being transferred have been retrofitted in accordance with Paragraphs 16, 17, 46 and 47
3 below.

4 b. Substitution of Transferee for Defendants.

5 (1) A Substitution of the Transferee for Defendants in this Consent Decree
6 may occur only where Defendants transfer both ownership and operation of the Obligated
7 Vessel.

8 (2) In the notice provided pursuant to Paragraph 4.a seeking a Substitution,
9 Defendants shall provide the United States with information concerning the proposed Transferee
10 and request approval to substitute the Transferee for Defendants with respect to retrofit or
11 retirement obligations pertaining to the Obligated Vessel to be transferred.

12 (3) Within sixty (60) Days of receiving the notice and request for
13 Substitution in Paragraph 4.a above, the United States will notify Defendants as to whether it
14 will agree to modify the Consent Decree to effectuate the requested Substitution. The United
15 States' approval of a proposed transfer that seeks a Substitution shall not be arbitrarily and
16 capriciously withheld.

17 (4) The United States, the Defendants, and the Transferee will execute, and
18 the Court must approve, a modification pursuant to Section XXII (Modification) of this Consent
19 Decree that:

- 20 (i) Makes the Transferee a party to this Consent Decree;
- 21 (ii) Makes the Transferee liable for the retrofit or retirement obligations
22 of Paragraphs 16-18 and 46-47 applicable to the Obligated Vessel to
23 be transferred; and

1 (iii) Relieves the Defendants of their liability under this Consent Decree
2 for all obligations and liabilities applicable to the Obligated Vessel
3 to be transferred.

4 c. Transfer without Relieving Defendants of Consent Decree Obligations or
5 a Substitution. Where Defendants transfer either ownership and/or operation of an Obligated
6 Vessel but are not relieved of responsibility for compliance with this Consent Decree pursuant to
7 Paragraph 5.a above, or a Substitution does not occur pursuant to Paragraph 5.b above,
8 Defendants shall remain responsible for compliance with this Consent Decree and the Transferee
9 shall be added as a Defendant through modification of this Consent Decree under Section XXII
10 (Modification) of this Consent Decree.

11 6. Facilities and Vessels other than Obligated Vessels. For Facilities and Vessels
12 other than Obligated Vessels, Defendants shall give written notice of this Consent Decree to any
13 successors in interest to the owners and/or operators of any Facility or Vessel at least thirty (30)
14 Days prior to the transfer of ownership or operation of any portion of a Facility or Vessel, and
15 shall simultaneously provide a copy of this Consent Decree to any such Transferee unless the
16 Transferee is also a Defendant under this Consent Decree. Defendants shall notify the United
17 States of any Transfer at least sixty (60) Days prior to any such transfer, in accordance with
18 Section XIX (Notices) of this Consent Decree. Defendants may be relieved from the obligations
19 in this Consent Decree as to the transferred Facility or Vessel only, without a Substitution, only
20 where Defendants:

21 a. Transfer both ownership and operation of the Facility or Vessel to an
22 entity that is not related to the Defendants;

23 b. Demonstrate and certify that at the time of the transfer:

Consent Decree:
United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611
(202) 305-0302

1 (1) None of the Large Appliances in the Facility or Vessel have a leak rate
2 in excess of the applicable leak repair threshold in 40 C.F.R. §§ 82.156(i) or 82.157;

3 (2) Any refrigerant leaks from any Large Appliances in the Facility or
4 Vessel discovered via the most recent comprehensive leak inspection conducted in accordance
5 with Paragraph 29 or leak inspection conducted in accordance with Paragraphs 35 through 37
6 have been repaired in accordance with Paragraph 39; and

7 (3) If required by Paragraph 31, Defendants have installed Fixed Leak
8 Detection Systems in the Facility or Vessel and added fluorescent dye to all Large Appliances in
9 the Facility or Vessel in accordance with Paragraphs 31 and 32; and

10 c. Give EPA the opportunity to inspect the to-be-transferred Facility or
11 Vessel, as well as sixty (60) Days of notice to confirm that the requirements of Paragraph 6.b
12 above are satisfied.

13 7. Vessels subject to Section VII (Supplemental Environmental Project) shall not be
14 transferred prior to being retrofitted in accordance with Paragraph 48. If a Vessel subject to
15 Section VII (Supplemental Environmental Project) has been retrofitted in accordance with
16 Paragraph 48, Defendants may be relieved of obligations under the Consent Decree for that
17 Vessel only if Defendants transfer the Vessel in compliance with the procedures set forth in
18 Paragraph 6 above.

19 8. Transfer of a Facility or Vessel under Paragraphs 4 through 7 above shall not
20 release the Defendants from any obligation under this Consent Decree that is not specific to the
21 transferred Facility or Vessel, including the obligations set forth in Sections IV (Civil Penalty),
22 VIII (Annual Refrigerant Loss Cap Program), and XIII (Stipulated Penalties), and all obligations

1 in Sections V (Compliance Requirements), VI (Retrofits), and XI (Reporting Requirements) with
2 respect to any other Vessels.

3 9. Defendants shall provide a copy in paper or electronic form of the Consent
4 Decree to all officers, employees, and agents whose duties might reasonably include compliance
5 with any provision of the Decree, as well as to any contractor retained to perform work required
6 under the Consent Decree, and any Auditor(s) hired pursuant to Section IX (Third Party
7 Verification). Defendants shall condition any such contract upon performance of the work in
8 conformity with the terms of the Consent Decree.

9 10. In any action to enforce the Consent Decree, Defendants shall not raise as a
10 defense the failure by any of their officers, directors, employees, agents, contractors, or Auditors,
11 to take any actions necessary to comply with the provisions of the Consent Decree.

12 III. DEFINITIONS

13 11. Terms used in the Consent Decree that are defined in the CAA or in regulations
14 promulgated pursuant to the CAA shall have the meanings assigned to them in the CAA or such
15 regulations, unless otherwise provided in the Decree. Whenever the terms set forth below are
16 used in the Consent Decree, the following definitions shall apply:

17 a. “Audit” shall mean a third-party audit as described in Section IX.

18 b. “Auditor” shall mean an independent third-party auditor selected and
19 approved pursuant to Section IX.

20 c. “Audit Finding” shall mean each way in which any document, record,
21 report, diagram, test, system, review, evaluation, policy, practice, plan, training, procedure,
22 personnel, equipment, or other item, action, or omission at a Vessel or Facility deviates from, or
23

1 does not comply and conform with this Consent Decree and with the portions of Appendix A that
2 address compliance with 40 C.F.R. Part 82, Subpart F.

3 d. “Class I or Class II refrigerant” shall mean “Class I” or “Class II” ozone
4 depleting substances as those terms are defined in 40 C.F.R. § 82.152.

5 e. “Complaint” shall mean the complaint filed by the United States in this
6 action.

7 f. “Component” shall mean a part of the refrigerant circuit within an
8 appliance including, but not limited to, compressors, condensers, evaporators, receivers, and all
9 of its connections and subassemblies.

10 g. “Consent Decree” or “Decree” shall mean this Consent Decree and all
11 appendices attached hereto.

12 h. “Covered Refrigerant” shall mean any refrigerant, as defined in
13 40 C.F.R. § 82.152, with the exception of any exempt substitute as defined in 40 C.F.R. §§
14 82.152 and 82.154(a)(1).

15 i. “Day” shall mean a calendar day unless expressly stated to be a business
16 day. In computing any period of time under the Consent Decree, where the last Day would fall
17 on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the
18 next business day.

19 j. “Defendants” shall mean Trident Seafoods Corporation, Royal Viking,
20 Inc. and Golden Dawn, LLC, either collectively or individually.

21 k. “EPA” shall mean the United States Environmental Protection Agency
22 and any of its successor departments or agencies.

23 l. “Effective Date” shall have the definition provided in Section XX.

1 m. “Extended Lay-up” shall mean a period of time lasting two weeks or
2 longer in which a Vessel is in port, not actively preparing for production operations, and when
3 each Large Appliance is Pumped Down.

4 n. “Facility” or “Facilities” shall mean all land based facilities that contain at
5 least one Large Appliance and that are owned or operated by Defendants as of the Effective
6 Date, or which Defendants may acquire during the effective period of this Consent Decree.

7 o. “Fixed Leak Detection System” shall mean a device installed on or near a
8 Large Appliance(s) that is designed, located, and calibrated to detect the escape of Covered
9 Refrigerant from said Large Appliance(s).

10 p. “Full Charge” shall mean the amount of Covered Refrigerant required for
11 normal operating characteristics and conditions of a Large Appliance, as determined in
12 accordance with 40 C.F.R. § 82.152. For Large Appliances with a Full Charge greater than 5,000
13 pounds of Covered Refrigerant, Defendants shall determine the Full Charge in accordance with
14 method (3) described under “Full Charge” in 40 C.F.R. § 82.152. For Large Appliances with a
15 Full Charge between 50 and 5,000 pounds of Covered Refrigerant, if Defendants have actual
16 measurements of the amount of refrigerant added to or evacuated from the appliance, including
17 for Seasonal Variances, they shall use method (3); otherwise, they shall use method (2) described
18 under 40 C.F.R. § 82.152.

19 q. “Large Appliance” shall mean any industrial process refrigeration or
20 commercial refrigeration equipment, as defined in 40 C.F.R. § 82.152, that “normally contains”
21 (as defined in 40 C.F.R. § 82.152) more than 50 pounds of Covered Refrigerant.

22 r. “Medium Appliance” shall mean any appliance that “normally contains”
23 (as defined in 40 C.F.R. § 82.152) between 5 and 50 pounds of Covered Refrigerant.

1 s. "Obligated Vessel" shall mean a Vessel with Large Appliances subject to
2 retrofit or retirement obligation under Paragraphs 16-17 and 46-47 of this Consent Decree.

3 t. "Paragraph" shall mean a portion of the Decree identified by an Arabic
4 numeral.

5 u. "Parties" shall mean the United States and Defendants.

6 v. "Plate Freezer" shall mean freezers designed for freezing of products
7 packed in pans that are pressed between plates in which refrigerant circulates through channels
8 within the plates.

9 w. "Pumped Down" shall mean when liquid refrigerant is moved internally
10 within the appliance from system evaporators to be stored in the high side of the system or in
11 other system Components to minimize potential refrigerant loss. An appliance Component is
12 Pumped Down if refrigerant has been evacuated from the Component to the maximum extent
13 possible, taking into consideration equipment availability and the limitations of the appliance in
14 which the Component is a part.

15 x. "Pumped-out and Isolated Component" shall mean a Component of an
16 appliance from which Defendants have evacuated refrigerant to the levels specified in
17 40 C.F.R. § 82.156, Table 1, and which is physically prevented from containing refrigerant
18 through use of a valve, flange, or other device. A Pumped-out and Isolated Component shall not
19 include the valve, flange, or other device used to prevent the Component from containing
20 refrigerant.

21 y. "Replacement Refrigerant" shall mean R-448A or any other refrigerant
22 approved by EPA pursuant to Section XII (Petitions).

23

1 13. Defendants shall pay the civil penalty due via FedWire Electronic Funds Transfer
2 (“EFT”) to the U.S. Department of Justice account, in accordance with instructions provided to
3 Defendants by the Financial Litigation Unit (“FLU”) of the United States Attorney’s Office for
4 the Western District of Washington after the Effective Date. The payment instructions provided
5 by the FLU will include a Consolidated Debt Collection System (“CDCS”) number, which
6 Defendants shall use to identify all payments required to be made in accordance with the
7 Consent Decree. The FLU will provide the payment instructions to:

8 Shawn Stokes
9 Regulatory Affairs Director
10 Trident Seafoods Corporation
11 5303 Shilshole Ave NW
12 Seattle, WA 98107
13 (206) 783-3818
14 sstokes@tridentseafoods.com

15 on behalf of Defendant. Defendants may change the individual to receive payment instructions
16 on their behalf by providing written notice of such change to the United States and EPA in
17 accordance with Section XIX (Notices).

18 At the time of payment, Defendants shall send notice that payment has been made: (i) to
19 EPA via email at cinwd_acctsreceivable@epa.gov or via regular mail at EPA Cincinnati Finance
20 Office, 26 W. Martin Luther King Drive, Cincinnati, Ohio 45268; (ii) to the United States via
21 email or regular mail in accordance with Section XIX (Notices); and (iii) to EPA in accordance
22 with Section XIX (Notices). Such notice shall state that the payment is for the civil penalty owed
23 pursuant to the Consent Decree in *United States v. Trident Seafoods Corporation* and shall
24 reference the civil action number, CDCS Number and DOJ case number 90-5-2-1-11183.

25 14. Defendants shall not deduct any penalties paid under the Decree pursuant to this
26 Section or Section XIII (Stipulated Penalties) in calculating their federal income tax.

Consent Decree:
United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611
(202) 305-0302

V. COMPLIANCE REQUIREMENTS

A. **Compliance with Applicable Law**

15. Defendants shall comply with all applicable requirements of Section 608 of the CAA, 42 U.S.C. § 7671g, and its implementing regulations at 40 C.F.R. Part 82, Subpart F.

B. **Retrofits and Retirements of Large Appliances with a Full Charge of between 50 and 5,000 pounds of Class I or Class II Refrigerant and of Medium Appliances**

16. Large Appliances with a Full Charge of between 50 and 5,000 pounds of Class I or Class II refrigerant. Consistent with the terms of this Consent Decree, Defendants must retrofit or retire any Large Appliances on the *Entrance Point*, the *Royal Viking*, the *Southern Wind*, the *Northern Ram*, and the *Pacific Viking* to a Replacement Refrigerant or “exempt substitute,” as defined in 40 C.F.R. §§ 82.152 & 154(a)(1), by no later than January 31, 2022.

17. Any Large Appliance that does not use a Replacement Refrigerant or an “exempt substitute” that Defendants acquire during the pendency of this Consent Decree to replace any of the Large Appliances on the *Entrance Point*, the *Royal Viking*, the *Southern Wind*, the *Northern Ram*, or the *Pacific Viking*, or to replace the refrigeration capacity of those Vessels, must be retrofitted, within two years of purchase or acquisition, to use a Replacement Refrigerant or an “exempt substitute,” as defined in 40 C.F.R. §§ 82.152 and 82.154(a)(1), as its refrigerant.

18. Medium Appliances. Consistent with the terms of this Consent Decree, if Defendants decide to retrofit an existing Medium Appliance or purchase a new Medium Appliance, the Medium Appliance must use a Replacement Refrigerant or an “exempt substitute,” as defined in 40 C.F.R. §§ 82.152 and 82.154(a)(1).

C. **Refrigerant Compliance Plan**

19. No later than February 28, 2019, Defendants shall implement the Refrigerant

Compliance Plan (“RCP”) attached as Appendix A to this Consent Decree, in accordance with

Consent Decree:

United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611

(202) 305-0302

1 all provisions and schedules therein. In the event of a conflict between the RCP and the terms of
2 this Consent Decree, the terms of the Decree shall control.

3 20. Notwithstanding any revisions pursuant to Paragraph 21 Defendants may make to
4 the RCP, the RCP shall at all times include, at a minimum, the following components:

5 a. Procedures for completing and reporting the results of Comprehensive
6 Leak Tests and Inspections that conform to the requirements of Paragraphs 28 through 30.

7 b. Procedures for completing and reporting the results of Routine Leak
8 Detection that conform to the requirements of Paragraphs 31 through 33.

9 c. Procedures for completing and reporting the results of Leak Inspections
10 that conform to the requirements of Paragraphs 34 through 38.

11 d. A requirement to take appropriate corrective action (including, but not
12 limited to, leak repair) that conforms to the requirements of Paragraph 39 whenever a leak in a
13 Large Appliance is identified.

14 e. Procedures for tracking leaks of Covered Refrigerant from Plate Freezers
15 that conform to the requirements of Paragraphs 40 and 41.

16 f. Procedures for employees or contractors to calculate the Full Charge of
17 each Large Appliance in accordance with Paragraph 11.p.

18 g. Procedures for maintaining original records, as clarified in Paragraph 45,
19 generated in the performance of tasks required by the RCP;

20 h. Procedures for maintaining fluorescent dye, as applicable, in each Large
21 Appliance;

22 i. Procedures for keeping records of and, as necessary, reporting to
23 Defendants' senior managers and/or EPA of:

Consent Decree:
United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611
(202) 305-0302

1 (1) All refrigerant purchases for, and any transfers between, additions to,
2 and removals from any Large Appliance;

3 (2) All Covered Refrigerant losses or releases, whether due to leaks or other
4 causes, from Large Appliances;

5 (3) Large Appliance Full Charge determinations;

6 (4) Large Appliance Leak rate calculations, which must use the Annualizing
7 Method described at 40 C.F.R. § 82.152 as option (1) under “Leak Rate”;

8 (5) All Leak Inspections required by Paragraphs 34 through 38. For the
9 purposes of keeping records of the Leak Inspections required by Paragraph 34, Defendants shall
10 indicate which Components are Pumped-out and Isolated or Pumped Down;

11 (6) All leak repair attempts, initial and follow-up verification testing of leak
12 repairs, and as needed, retrofit or retirement plans and activities (see 40 C.F.R. §§ 82.156(i)(6);
13 82.157(c), (h), and (i));

14 (7) Each occasion in which a Fixed Leak Detection System required by
15 Paragraph 31 alarms at 100 ppm or higher; and

16 (8) Each addition of fluorescent dye in Large Appliances.

17 j. Modifications to Large Appliances, including documentation of the effect,
18 if any, of the additions or removals of any Components on the appliance’s Full Charge.

19 k. A requirement for employee training that, at a minimum, meets the
20 requirements of Paragraphs 42 and 43.

21 l. Identification of responsibilities of individual employees and managers at
22 different levels, as well as contractors, with regard to Large Appliances and service activities,
23 refrigerant management, recordkeeping and reporting.

1 m. A method to calculate the amount of refrigerant lost from each Large
2 Appliance that incorporates the following principles:

3 (1) Refrigerant loss calculations shall take into account leaks in appliances,
4 human error in operating appliances, or intentional venting of an appliance.

5 (2) Refrigerant that is added to an appliance to return it to normal operating
6 characteristics and conditions shall be assumed to replace refrigerant lost, except when added as
7 a result of a Seasonal Variance.

8 n. Any other requirement that is necessary to maintain compliance with all
9 applicable requirements of Section 608 of the Clean Air Act, 42 U.S.C. § 7671g, and its
10 implementing regulations at 40 C.F.R. Part 82, Subpart F.

11 21. Beginning January 1, 2019, Defendants shall review the RCP at least annually and
12 revise it as necessary to comply with Paragraphs 15 and 20, as part of a Corrective Action Plan
13 submitted pursuant to Paragraph 66, or as necessary to account for changes in technology or
14 circumstances. Defendants shall submit the revised RCP in accordance with Section XI
15 (Reporting) of this Decree and shall implement all revisions, unless EPA takes action pursuant to
16 Paragraph 22.a or 22.b below.

17 22. The revised RCP is subject to EPA's review and disapproval. After reviewing the
18 RCP, EPA may take any of the following actions:

- 19 a. Disapprove, in writing, the RCP, in whole or in part;
20 b. Provide edits, in writing, to the RCP; or
21 c. Take no action.

1 23. If EPA disapproves the revised RCP in whole or in part pursuant to Paragraph
2 22.a, Defendants shall, within forty-five (45) Days or such other time as the Parties agree to in
3 writing, correct all deficiencies and resubmit the revised RCP, or disapproved portion thereof.

4 24. If EPA disapproves the revised RCP in part pursuant to Paragraph 22.a, then for
5 other sections of the revised RCP that EPA determines are technically severable from any
6 disapproved portions Defendants shall, upon written direction from EPA, take all actions
7 required by the portions of the revised RCP that the EPA has not disapproved, subject to
8 Defendants' right to dispute only the disapproved portions, under Section XV (Dispute
9 Resolution).

10 25. If EPA provides edits pursuant to Paragraph 22.b, Defendants shall, within forty-
11 five (45) Days or such other time as the Parties agree to in writing, incorporate EPA's edits and
12 resubmit the revised RCP.

13 26. If the revised RCP resubmitted pursuant to Paragraphs 23 or 25, or portion
14 thereof, is disapproved in whole or in part, or does not incorporate EPA's edits, EPA may again
15 require Defendants to correct any deficiencies or incorporate edits in accordance with Paragraph
16 22.a or 22.b, subject to Defendants' right to invoke Dispute Resolution and the right of EPA to
17 seek stipulated penalties.

18 27. Any stipulated penalties applicable to the original RCP submission, as provided in
19 Section XIII, shall accrue during the forty-five (45) Day or other specified period set forth in
20 Paragraph 23 or 25, but shall not be payable unless the resubmission is untimely or is
21 disapproved in whole or in part; provided that, if the original submission was so deficient as to
22 constitute a material breach of Defendant's obligations under the Decree, any stipulated penalties

1 demanded that are applicable to the original submission shall be due and payable
2 notwithstanding any subsequent resubmission.

3 **D. Comprehensive Leak Tests and Inspections**

4 28. Large Appliances with a Full Charge of 5,000 or more pounds of Class I or Class
5 II refrigerant. At least once each Calendar Year beginning January 1, 2019, Defendants shall
6 evacuate each Large Appliance with a Full Charge of 5,000 or more pounds of Class I or Class II
7 refrigerant to the level specified in 40 C.F.R. § 82.156, Table 1. Defendants shall then pressurize
8 the entire system to a pressure in excess of atmospheric pressure that is sufficient to check for
9 and identify leaks in accordance with Paragraph 37. Each comprehensive leak test and inspection
10 conducted in accordance with this Paragraph shall be conducted at least six months apart from its
11 prior and subsequent test and inspection. Nothing in this Paragraph shall be construed to limit
12 Defendants' ability to conduct additional comprehensive leak tests and inspections beyond those
13 required by this Paragraph.

14 29. Large Appliances with a Full Charge of between 50 and 5,000 pounds of Class I
15 or Class II refrigerant.

16 a. At least once every three calendar years beginning January 1, 2019,
17 Defendants shall evacuate each Large Appliance with a Full Charge of between 50 and 5,000
18 pounds of Class I or Class II refrigerant to the level specified in 40 C.F.R. § 82.156, Table 1.
19 Defendants shall then pressurize the entire system to a pressure in excess of atmospheric pressure
20 that is sufficient to check for and identify leaks in accordance with Paragraph 37.

21 b. In each calendar year in which Defendants do not follow the procedures
22 set forth in Paragraph 29.a, beginning January 1, 2019, Defendants shall conduct a
23 comprehensive leak test and inspection as follows: Defendants shall first inspect the system in an

1 idle state with pressure equalized in all parts of the system at the ambient temperature. After a
2 full inspection in accordance with Paragraph 37, Defendants shall increase pressure of the system
3 high side to a pressure in excess of idle system pressure that is sufficient to check for and
4 identify leaks and complete an inspection of the system high side in accordance with Paragraph
5 37. The comprehensive leak tests and inspections conducted in accordance with this Paragraph
6 shall be conducted at least six months apart from the prior and subsequent test and inspection.
7 Nothing in this Paragraph shall be construed to limit Defendants' ability to conduct additional
8 comprehensive leak tests and inspections, beyond those required by this Paragraph.

9 30. Defendants shall report any comprehensive leak tests and inspections undertaken
10 pursuant to Paragraphs 28, 29.a and 29.b above in accordance with Section XI (Reporting
11 Requirements), and shall repair any leaks discovered pursuant to Paragraphs 28, 29.a and 29.b in
12 accordance with the procedures laid out in Paragraph 39.

13 **E. Routine Leak Detection**

14 31. Leak Detectors and Fluorescent Dye. Defendants shall install Fixed Leak
15 Detection and add fluorescent dye to Large Appliances:

16 a. With a Full Charge of 5,000 or more pounds of Class I or Class II
17 refrigerant: by January 1, 2019;

18 b. With a Full Charge of between 50 and 5,000 pounds of Class I or Class II
19 refrigerant located on a Vessel: when the Vessel is undergoing triennial maintenance in dry dock
20 or by January 31, 2022, whichever is earlier;

21 c. With a Full Charge of between 50 and 5,000 pounds of Class I or Class II
22 refrigerant located at a Facility: by January 31, 2022; and
23

1 d. With a Full Charge greater than 50 pounds of Class I or Class II
2 refrigerant that Defendants install at any Vessel or Facility during the pendency of the Consent
3 Decree: within sixty (60) Days of installation of said appliance.

4 32. Defendants shall complete the installation of Fixed Leak Detection Systems and
5 the additions of fluorescent dye in accordance with the manufacturer's instructions.

6 33. Defendants shall calibrate, maintain, and operate each Fixed Leak Detection
7 System while Components in the area covered by the Detection System contain refrigerant,
8 maintain fluorescent dye in each Large Appliance, and maintain an ultraviolet (UV) light at each
9 Vessel and Facility at which Defendants use fluorescent dye. The requirement to operate each
10 Fixed Leak Detection System shall not apply to Fixed Leak Detection Systems located on
11 Vessels during periods of Extended Lay-up if the Vessel is not connected to shore power.

12 **F. Leak Inspections**

13 34. Large Appliances with a Full Charge of 5,000 or more pounds of Class I or Class
14 II refrigerant on Vessels. Beginning January 1, 2019, for each Large Appliance with a Full
15 Charge of 5,000 or more pounds of Class I or Class II refrigerant at any Vessel or Facility, when
16 each such Large Appliance is charged with refrigerant, Defendants shall conduct inspections on
17 each Component of the Large Appliance, except those Components that are Pumped-out and
18 Isolated or Pumped Down, subject to the limitations of 40 C.F.R. § 82.157(g)(3), on a rolling
19 basis, such that each Component in operation is inspected at least once every fifteen (15) Days in
20 accordance with Paragraph 37. During an Extended Lay-up, Defendants are not required to
21 inspect Components that are Pumped-out and Isolated or Pumped Down. During an Extended
22 Lay-up, Defendants shall inspect any Component which has not been Pumped-out and Isolated
23 or Pumped Down at least once every thirty (30) Days.

1 35. Large Appliances with a Full Charge of between 50 and 5,000 pounds of Class I
2 or Class II refrigerant. For each Large Appliance with a Full Charge of between 50 and 5,000
3 pounds of Class I or Class II refrigerant on a Vessel, Defendants shall conduct an inspection of
4 each system in accordance with Paragraph 37 at least once per Calendar year beginning January
5 1, 2019. This inspection shall occur, when feasible, prior to pumping the system down before an
6 Extended Lay-up period. For each such Large Appliance at a Facility, Defendants shall conduct
7 inspections of each system in accordance with Paragraph 37 at least once per Calendar year.

8 36. Beginning January 1, 2019, Defendants shall also conduct inspections of
9 Components in the area of a Fixed Leak Detection System of each Large Appliance with a Full
10 Charge of between 50 and 5,000 pounds of Class I or Class II refrigerant at a Facility or on a
11 Vessel:

12 a. within 48 hours after the detector alarms at a level of 100 ppm or higher,
13 or, for Vessels that are on an Extended Lay-up, within 96 hours of when Defendants knew or
14 should have known that the detector had alarmed at a level of 100 ppm or higher; and

15 b. within 48 hours after any addition of Class I or Class II refrigerant,
16 unless:

17 (1) such addition is to return the Large Appliance to normal operating
18 characteristics and conditions following a comprehensive leak check performed consistent with
19 Paragraph 29; or

20 (2) a leak inspection and repair is required by 40 C.F.R. § 82.157, in which
21 case the inspection and repair shall be conducted in accordance with 40 C.F.R. § 82.157.

22 37. For the inspections described in Paragraphs 28, 29, and 34 through 36 above,
23 Defendants shall conduct appropriate inspections by using one of the following methods: halide

1 torch, electronic detector, ultrasonic detector, fluorescent dye/ultraviolet, soapy water, any of the
2 tests named in the definition of “follow-up verification test” included in 40 C.F.R. § 82.152, or
3 any other inspection method that the Parties agree to in writing. The person conducting the
4 inspection on behalf of Defendants shall be trained on how to use the inspection method(s) or
5 work under the direct supervision of a person trained on how to use the inspection method(s).

6 38. Video Inspections. Beginning January 1, 2019, Defendants shall make video
7 recordings (or series of recordings) on or at each Vessel or Facility with a Large Appliance
8 containing Class I or Class II refrigerant that displays an accurate time-stamp and records, with
9 sufficient detail and clarity, a qualified individual(s) conducting Leak Inspections, Leak Repairs
10 (if applicable), Leak Repair Verifications (if applicable), and the other activities listed in
11 Paragraph 78.b (if applicable) on one or more Large Appliances. Video inspections are to be
12 completed according to the following schedules and additional requirements:

13 a. Defendants will complete at least one Video Inspection every year at each
14 Vessel or Facility with one or more Large Appliance with a Full Charge of 5,000 or more pounds
15 of Class I or Class II refrigerant. The Video Inspection for these Facilities or Vessels must record
16 the inspections of at least one Large Appliance with a Full Charge of 5,000 or more pounds of
17 Class I or Class II refrigerant and inspections of Plate Freezers, if present.

18 b. For all Vessels or Facilities with Large Appliances with a Full Charge of
19 between 50 and 5,000 pounds of Class I or Class II refrigerant, Defendants shall complete at
20 least one Video Inspection at each such Vessel or Facility by January 31, 2024 , provided that
21 each year, Defendants will complete Video Inspections on at least five such Vessels or Facilities.

1 **G. Leak Repair**

2 39. For each Large Appliance, Defendants shall repair all identified leaks of Class I or
3 Class II refrigerant that are visible and accessible (as those terms are used in 40 C.F.R.
4 § 82.157(g)(3)) regardless of how those leaks are discovered and regardless of the calculated
5 leak rate, within the later of (a) 30 Days; or (b) the applicable deadlines in 40 C.F.R. Part 82,
6 Subpart F. Defendants shall also comply with any and all requirements and deadlines set forth in
7 40 C.F.R. Part 82, Subpart F, pertaining to any leaks of Covered Refrigerant (other than Class I
8 or Class II refrigerant) from a Large Appliance. Defendants shall comply with all other
9 requirements of 40 C.F.R. Part 82, Subpart F, pertaining to these repairs, including performing
10 initial and follow-up verification tests. Defendants shall repair all identified leaks such that the
11 annual leak rate is brought below the applicable annual leak rate established for that type of
12 appliance in 40 C.F.R. Part 82, Subpart F. For purposes of calculating stipulated penalties
13 pursuant to Paragraph 108.d, each Day after 30 Days, or after the applicable deadline in 40
14 C.F.R. Part 82, Subpart F, whichever is later, that the annual leak rate is not brought below the
15 applicable leak rate constitutes a separate violation. Whether the leak repair(s) have brought the
16 leak rate below the applicable leak rate must be confirmed by the leak rate calculation performed
17 upon the next refrigerant addition. The leaks will be presumed to be repaired if there is no further
18 refrigerant addition for twelve (12) months after the repair or if a leak inspection performed
19 consistent with Paragraphs 34 through 37, as applicable, does not find any leaks in the appliance.

20 **H. Plate Freezer Leak Tracking System**

21 40. Starting upon the Effective Date, when inspecting each Plate Freezer in
22 accordance with Paragraph 34 above, or any other time when Defendants inspect Plate Freezers
23 for leaks, Defendants shall document the inspection and all leaks found. Such documentation

1 shall include the leak date and the exact location where the leak was found, including the freezer
2 number, plate number, plate or header fitting, hose number and hose type (liquid or suction), as
3 well as the steps taken to fix the leak (e.g. changing a hose) and any qualitative estimates of
4 refrigerant lost.

5 41. No later than June 30, 2019, Defendants shall develop and implement a database
6 (“Plate Freezer Leak Database”) to store leak-related data obtained during a Plate Freezer
7 inspection. The Plate Freezer Leak Database shall include:

8 a. Data gathered related to Plate Freezer leaks found on inspections starting
9 upon the Effective Date. If qualitative information on estimated amount of refrigerant lost is
10 documented for a particular leak as part of leak inspection documentation, it shall also be entered
11 into the database.

12 b. Information retrieval functionality that allows comparison and filtering
13 based on the information required to be tracked pursuant to Paragraph 40.

14 c. The ability to generate reports, including potential trending information.

15 **I. Training**

16 42. All employees of Defendants who charge Large Appliances with Covered
17 Refrigerant, remove Covered Refrigerant from Large Appliances, service, inspect, or maintain
18 Large Appliances, or complete records or reports related to Covered Refrigerant, shall undergo
19 training on refrigerant management on at least an annual basis in accordance with the procedures
20 set forth in Appendix A. Initial, annual training for active employees shall be completed no later
21 than February 28, 2019. Any new employees hired or former employees reactivated whose job
22 tasks include duties listed in this paragraph shall undergo training on refrigerant management no
23 later than February 28, 2019, or within sixty (60) Days of the employee’s first day of

1 employment or reactivation, whichever is later. After initial training is complete, each employee
2 whose job tasks include duties listed in this paragraph shall receive annual training once per
3 calendar year.

4 43. Such training shall include physical demonstrations, on-line tutorials, on-the-job
5 training, or other training methods, as appropriate to the duties of each employee, and shall
6 address:

7 a. Relevant legal requirements under Section 608 of the Clean Air Act,
8 42 U.S.C. § 7671g, and its implementing regulations at 40 C.F.R. Part 82, Subpart F;

9 b. Defendant's policies and procedures as described in the RCP, including, as
10 appropriate, physical demonstrations of conducting leak detection and repair activities using the
11 procedures; and

12 c. Employees' and contractors' individual responsibilities as described in the
13 RCP.

14 **J. Electronic Records Portal**

15 44. No later than March 31, 2019, Defendants shall implement an Electronic Records
16 Portal ("Portal") that allows for the electronic availability of all records required under 40 C.F.R.
17 Part 82, Subpart F and the Consent Decree, including all records required by Paragraph 20.i. The
18 Electronic Records Portal shall be a secure, cloud-based system (e.g. Microsoft Sharepoint) that
19 automatically backs up all uploaded files. For each Large Appliance with a Full Charge of
20 between 50 and 5,000 pounds of Covered Refrigerant, Defendants shall ensure that all records
21 are uploaded to the Portal no less frequently than once per month. For each Large Appliance
22 with more than 5,000 pounds of Covered Refrigerant, Defendants shall ensure that records are
23 uploaded to the Portal no less frequently than once per week.

1 45. Defendants shall maintain all records set forth in Paragraph 44 above in their
 2 original form. Defendants may correct errors, or create separate, supplemental records to ensure
 3 compliance with the requirements of this Consent Decree and with applicable law, but shall not
 4 erase, change, or replace the original records, unless the original entry and the correction are both
 5 legible on the original record or, in the case of electronic records, information on any corrections,
 6 including the original entry, the revised entry, the reason for the revision, and the date of the
 7 revision are noted in the electronic record or in a corrections log. Any supplemental records
 8 created must accurately reflect the date and circumstances under which they were created.
 9 Original form includes scanned copies of original documents. Any paper records created must be
 10 retained pursuant to Paragraph 138 below, even if the document or its content have also been
 11 converted to electronic form.

12 VI. RETROFITS OF LARGE APPLIANCES WITH A FULL CHARGE OF 5,000 OR
 13 MORE POUNDS OF CLASS I OR CLASS II REFRIGERANT

14 46. Consistent with the terms of this Consent Decree, Defendants must retrofit or
 15 retire any Large Appliances with a Full Charge of 5,000 or more pounds of Class I or Class II
 16 refrigerant on each of the following Vessels in accordance with the following schedule:

Retrofit or Retirement Date	Vessel
By January 31, 2022	Either the Independence or the Island Enterprise
By January 31, 2024	Eastern Wind
By January 31, 2026	Both the Independence and the Island Enterprise
By January 31, 2029	Seattle Enterprise and Kodiak Enterprise

17 Each Large Appliance that is retrofitted in accordance with this Paragraph shall be retrofitted to
 18 use an “exempt substitute,” as defined in 40 C.F.R. §§ 82.152 and 82.154(a)(1).

1 47. Any Large Appliance Defendants purchase or otherwise acquire during the
 2 pendency of this Consent Decree to replace any of the Large Appliances on the Vessels
 3 identified in Paragraph 46, or the refrigeration capacity of those Vessels, that does not already
 4 use an exempt substitute, must be retrofitted within two (2) years of purchase or acquisition to
 5 use an “exempt substitute,” as defined in 40 C.F.R. §§ 82.152 and 82.154(a)(1), as its refrigerant.

6 VII. SUPPLEMENTAL ENVIRONMENTAL PROJECT

7 48. Defendants shall implement a Supplemental Environmental Project (“SEP”), the
 8 SEP Small Vessel Retrofits, in accordance with all provisions of this Section of this Consent
 9 Decree. To complete the SEP, Defendants shall retrofit all Large Appliances on the *Aldebaran*,
 10 the *Marcy J*, the *Northern Patriot*, and the *Gladiator* (collectively, “SEP Vessels”) to a
 11 Replacement Refrigerant or “exempt substitute,” as defined in 40 C.F.R. §§ 82.152 and
 12 154(a)(1). The SEP shall be completed by January 31, 2022, in accordance with the following
 13 schedule:

Retrofit or Retirement Date	Number of SEP Vessels
By January 31, 2020	One SEP Vessel
By January 31, 2021	Three SEP Vessels
By January 31, 2022	Four SEP Vessels

14 49. Defendants are responsible for the satisfactory completion of the SEP in
 15 accordance with the requirements of this Decree. “Satisfactory completion” means timely
 16 completion of retrofits to all Large Appliances in accordance with the schedule described in
 17 Paragraph 48 above. Defendants may use contractors or consultants in planning and
 18 implementing the SEP.

1 50. With regard to the SEP, Defendants certify the truth and accuracy of each of the
2 following:

3 a. that all cost information provided to EPA in connection with EPA's
4 approval of the SEP is complete and accurate and that Defendants in good faith estimate that the
5 cost to implement the SEP is \$955,200;

6 b. that the Large Appliances described in Paragraph 48 above have never
7 been in violation of the venting prohibitions and leak repair requirements of Section 608 of the
8 CAA and 40 C.F.R. Part 82, Subpart F;

9 c. that, as of the date of executing this Decree, Defendants are not required to
10 perform or develop the SEP by any federal, state, or local law or regulation and are not required
11 to perform or develop the SEP by agreement, grant, or as injunctive relief awarded in any other
12 action in any forum;

13 d. that the SEP is not a project that Defendants were planning or intending to
14 construct, perform, or implement other than in settlement of the claims resolved in this Decree;

15 e. that Defendants have not received and will not receive credit for the SEP
16 in any other enforcement action;

17 f. that Defendants will not receive any reimbursement for any portion of the
18 SEP from any other person; and

19 g. that Defendants are not a party to any open federal financial assistance
20 transaction that is funding or could fund the same activity as the SEP described in Paragraph 48.

21 For purposes of these certifications, the term "open federal financial assistance transaction"

22 refers to a grant, cooperative agreement, loan, federally-guaranteed loan guarantee, or other

23 mechanism for providing federal financial assistance whose performance has not yet expired.

1 51. SEP Completion Report. No later than February 28, 2022, Defendants shall
2 submit a SEP Completion Report to the United States, in accordance with Section XIX of this
3 Consent Decree (Notices). The SEP Completion Report shall contain the following information:

4 a. a detailed description of the SEP as implemented;
5 b. documentation that the Large Appliances located on the Vessels listed in
6 Paragraph 48 have been retrofitted to use a Replacement Refrigerant or “exempt substitute,” as
7 defined in 40 C.F.R. §§ 82.152 and 154(a)(1) by the dates required in Paragraph 48.

8 c. a description of any problems encountered in completing the SEP and the
9 solutions thereto;

10 d. an itemized list of all eligible SEP costs expended;

11 e. certification that the SEP has been fully implemented pursuant to the
12 provisions of this Decree; and

13 f. a description of the environmental and public health benefits resulting
14 from implementation of the SEP (with a quantification of the benefits and pollutant reductions, if
15 feasible).

16 52. EPA may, in its sole discretion, require information in addition to that described
17 in the preceding paragraph, in order to evaluate Defendants’ completion report.

18 53. After receiving the SEP Completion Report, the United States shall notify
19 Defendants whether or not Defendants have satisfactorily completed the SEP. If Defendants have
20 not completed the SEP in accordance with this Consent Decree, stipulated penalties may be
21 assessed under Section XIII (Stipulated Penalties) of this Consent Decree.

1 54. Disputes concerning the satisfactory performance of the SEP and the amount of
2 eligible SEP costs may be resolved under Section XV (Dispute Resolution) of this Decree. No
3 other disputes arising under this Section shall be subject to Dispute Resolution.

4 55. Each submission required under this Section shall be signed by an official with
5 knowledge of the SEP and shall bear the certification language set forth in Paragraph 96.

6 56. Any public statement, oral or written, in print, film, or other media made by
7 Defendants making reference to the SEP under this Decree shall include the following language:
8 “This project was undertaken in connection with the settlement of an enforcement action, United
9 States v. Trident Seafoods Corporation, et al., taken on behalf of the U.S. Environmental
10 Protection Agency under the Clean Air Act.”

11 57. For federal income tax purposes, Defendants agree that they will neither capitalize
12 into inventory or basis nor deduct any costs or expenditures incurred in performing the SEP.

13 58. If Defendants satisfactorily complete the SEP, but do not spend the full amount of
14 the estimate set forth in Paragraph 50.a above, and if EPA determines that the amount remaining
15 reasonably could be applied toward another SEP, Defendants shall retrofit any Large Appliances
16 on an additional Vessel(s) with a Replacement Refrigerant or “exempt substitute,” as defined in
17 40 C.F.R. §§ 82.152 and 154(a)(1).

18 VIII. ANNUAL REFRIGERANT LOSS CAP PROGRAM

19 59. Beginning January 1, 2019, Defendants shall implement the Annual Refrigerant
20 Loss Cap Program (“Program”) set forth in this Section, in accordance with all provisions and
21 schedules therein. The Program shall cover all Large Appliances with Class I or Class II
22 refrigerant at any Facility or Vessel, including any such Large Appliances acquired after the
23 Effective Date (“Program Appliances”).

1 60. **Definitions.** For the purposes of this Section the following definitions shall apply:

2 a. “Program Full Charge” shall mean the charge determination, for purposes
3 of this Section only, calculated using the methods in Paragraph 63.

4 b. “Reporting Year” shall mean the calendar year immediately preceding the
5 current calendar year.

6 c. “Refrigerant Year” or “RY” shall mean:

7 (1) For Program Appliances with over 5,000 pounds of refrigerant that
8 Defendants do not transfer to another entity during the Reporting Year: the time period between
9 the date refrigerant is added to an empty system (start of Refrigerant Year) and the date that
10 refrigerant is completely evacuated from the Program Appliance (end of Refrigerant Year).

11 (2) For Program Appliances with over 5,000 pounds of refrigerant that
12 Defendants transfer to another entity during the Reporting Year: the period between the date
13 refrigerant is added (start of Refrigerant Year) and the date the relevant Defendant transfers the
14 Program Appliance pursuant to Section II (Applicability) of this Consent Decree (end of
15 Refrigerant Year).

16 (3) For Program Appliances with between 50 and 5,000 pounds of
17 refrigerant: from January 1 through December 31 (calendar year), or from January 1 up to the
18 date the Program Appliance is transferred to another entity pursuant to Section II (Applicability)
19 of this Consent Decree.

20 d. “Seasonal Variance” shall have the meaning described in Paragraph
21 63.b(2) below.

1 61. **Release Limits.** In each Reporting Year, if Class I or Class II refrigerant is
2 released from Defendants' Program Appliances in an amount that equals or exceeds the
3 following Release Limits, then Defendants shall undertake the following actions:

4 a. If the amount of Class I and Class II refrigerant released from all Program
5 Appliances exceeds 17.5%, as calculated below, Defendants shall develop and execute a
6 Corrective Action Plan in accordance with Paragraph 66.

7 b. If the amount of Class I and Class II refrigerant released from all Program
8 Appliances exceeds 25%, as calculated below, in addition to the Corrective Action Plan required
9 by Paragraph 61.a, Defendants shall be liable for stipulated penalties in accordance with
10 Paragraph 112.

11 62. **Determining Amount Released.** No later than February 28 of each calendar year
12 beginning in 2020, Defendants shall determine the amount of Class I and Class II refrigerant
13 released during the most recent Reporting Year from all Program Appliances by summing the
14 amount lost from each Program Appliance with a Refrigerant Year that ended in the Reporting
15 Year and dividing that number by the total sum of the Program Full Charges for each Program
16 Appliance with a Refrigerant Year that ended in the Reporting Year and multiplying by 100.
17 Defendants shall calculate the individual losses and Program Full Charges from the Program
18 Appliances as follows:

19 a. The amount of refrigerant lost from a Program Appliance during the
20 Refrigerant Year shall be deemed lost during the Reporting Year in which the Refrigerant Year
21 ends, unless there was no Refrigerant Year ending in the Reporting Year, in which case any
22 amount of refrigerant lost during the Reporting Year shall be zero (0) and the unit will not have
23 its Program Full Charge included in any part of the annual loss calculation. If two (2) Refrigerant

1 Years end in the same Reporting Year, the amount of refrigerant lost from a Program Appliance
 2 during the Reporting Year will include all losses from each Refrigerant Year ending in the
 3 Reporting Year. For example:

4 (1) **Example 1.** If a Program Appliance has a Refrigerant Year that starts on
 5 December 17, 2018 and ends on December 5, 2019, any amount of refrigerant lost during this
 6 time period shall be attributable to the 2019 Reporting Year;

7 (2) **Example 2.** If a Program Appliance has a Refrigerant Year that starts on
 8 December 1, 2017, and ends on January 16, 2019, any amount of refrigerant lost during this time
 9 period shall be attributable to the 2019 Reporting Year along with any other Refrigerant Years
 10 ending in 2019 and there will be no losses reported for the 2018 Reporting Year;

11 (3) **Example 3.** If a Program Appliance has a Refrigerant Year that starts on
 12 January 17, 2019 and ends on December 5, 2019, any amount of refrigerant lost during this time
 13 period shall be attributable to the 2019 Reporting Year.

14 (4) **Example 4.** If a Program Appliance has a Refrigerant Year that starts on
 15 December 28, 2018 and ends on September 5, 2019, any amount of refrigerant lost during this
 16 time period shall be attributable to the 2019 Reporting Year.

17 b. Calculation for Large Program Appliances with a Full Charge of 5,000 or
 18 more pounds of Class I or Class II refrigerant: the Amount released during a Refrigerant Year
 19 shall be determined by the following formula:

20
$$\text{Amount Released in RY X} = [\text{Additions (RY X)}] - [\text{Removals (RY X)}]$$

21 Where:

22 (1) “Additions (RY X)” is the total amount of all Class I or Class II
 23 refrigerant added to the Large Appliance during Refrigerant Year X for any reason, including

1 initial charging of the Large Appliance, equipment upgrades and expansions, and replacing
2 refrigerant lost due to leaks or other causes.

3 (2) "Removals (RY X)" is the total amount of all Class I or Class II
4 refrigerant removed from the Large Appliance during RY X, including evacuation at the end of
5 the Refrigerant Year, removal of equipment or Components, or conversion or retirement of the
6 Large Appliance. Any such removals must be supported by appropriate service records.

7 c. Calculation for Large Program Appliances with a Full Charge of between
8 50 and 5,000 pounds of Class I or Class II refrigerant: the Amount Released in a Refrigerant
9 Year shall be the total amount of Class I or Class II refrigerant added to the Large Appliance, for
10 any reason, during that Refrigerant Year, minus the amount added for expansions or
11 modifications of the Large Appliance and for qualified Seasonal Variances.

12 63. **Calculating the Program Full Charge for Program Appliances.** For the
13 purposes of this Section, the Program Full Charge for Program Appliances shall be calculated in
14 accordance with the following:

15 a. Calculation for Program Appliances with a Full Charge of 5,000 or more
16 pounds of Class I or Class II refrigerant: Program Full Charge for a Refrigerant Year will be the
17 amount of refrigerant added to the system at the beginning of the Refrigerant Year.

18 b. Calculation for Large Program Appliances with a Full Charge of between
19 50 and 5,000 pounds of Class I or Class II refrigerant: Program Full Charge will be calculated at
20 the end of the Refrigerant Year according to one of the following methods, in descending order:

21 (1) If a full drain and addition has been completed within the past 36
22 months, then Defendants shall use the amount of refrigerant added to a Program Appliance to
23 return the Program Appliance to a Full Charge following a full evacuation;

1 (2) If an actual measurement of refrigerant has occurred within the past 36
 2 months but Defendants have documented a change in external factors that resulted in the need
 3 for more refrigerant, then Defendants shall use the weighted average of refrigerant in the
 4 Program Appliance. A Seasonal Variance Program Full Charge is not permitted where any leaks
 5 have been found, whether repaired or not. When permitted, the Seasonal Variance Program Full
 6 Charge is calculated as:

$$7 \quad \text{Program Full Charge} = \text{Charge}_A \times \frac{\text{Time}_A}{365} + \text{Charge}_B \times \frac{\text{Time}_B}{365}$$

8 Where:

9 Charge_A= the pounds of refrigerant in the system at the beginning of the
 10 Refrigerant Year.

11 Time_A= the number of Days between the beginning of the Refrigerant
 12 Year and the date refrigerant is added for a qualified Seasonal Variance,
 13 plus any additional Days in the Refrigerant Year for which the system is
 14 returned to Charge_A.

15 Charge_B= the pounds of refrigerant in the system at the beginning of the
 16 Refrigerant Year plus the amount added for the Seasonal Variance.

17 Time_B = the number of Days after refrigerant is added for a qualified
 18 Seasonal Variance, plus any additional Days in the Refrigerant Year for
 19 which the system returns to Charge_B; or

20 (3) If neither (1) nor (2) applies, then an engineering estimate by a qualified
 21 engineer of the amount of refrigerant within the Program Appliance.

22 64. **New Large Appliances.** Any Large Appliances containing Class I or Class II

23 refrigerant Defendants purchase or otherwise acquire at any Facility or Vessel during the

1 pendency of this Consent Decree shall also be subject to the terms of this Program beginning
2 with the first full Calendar Year following the date such Large Appliance is put into service. The
3 Amount Released from any new Large Appliance shall be determined using one of the
4 calculations in Paragraph 62. Program Full charge of a new Large Appliance shall be calculated
5 in accordance with the procedures set forth in Paragraph 63.a or 63.b, above.

6 65. **Program Reporting.** In the annual reporting submitted pursuant to Section XI
7 (Reporting Requirements), Defendants shall report the following information regarding the
8 Program:

9 a. **Reporting Year.** With regard to the Reporting Year, Defendants shall
10 report, and provide supporting documentation for, the following:

11 (1) The Program Full Charge of each Program Appliance, documentation
12 that any changes in Program Full Charge from Seasonal Variance conform to the requirements of
13 Paragraph 63.b(2), and documentation of other expansions and modifications that affect the
14 Program Full Charge;

15 (2) A notation of any Program Appliance that did not end a Refrigerant
16 Year in the applicable Reporting Year and therefore will not be included in the calculation;

17 (3) The dates that the Refrigerant Year begins and ends, for each Program
18 Appliance with a Full Charge of 5,000 or more pounds of refrigerant;

19 (4) The Amount Released from each Program Appliance during the calendar
20 year using the appropriate calculation described in Paragraph 62; and

21 (5) A calculation of the total pounds of refrigerant released cumulatively
22 from all Program Appliances for the relevant Reporting Year and whether, and by how many
23

1 pounds, the cumulative Amount Released equals or exceeds either of the applicable Release
2 Limits described in Paragraph 61.

3 b. Current Calendar Year. With regard to the calendar year that is underway
4 when the Annual Report is submitted, Defendants shall report the Program Full Charge that has
5 been set for each Program Appliance at the start of the current calendar year.

6 66. Corrective Action Plan. If Class I or Class II refrigerants are released from
7 Defendants' Program Appliances during the previous calendar year in an amount exceeding the
8 Corrective Action Release Limit in Paragraph 61.a, Defendants shall submit by April 1 of the
9 current calendar year a Corrective Action Plan that describes Defendants' strategy for preventing
10 exceedances of the Corrective Action Release Limit in the current Calendar Year. The Corrective
11 Action Plan shall at a minimum address the following:

12 a. The identified cause(s) of the exceedance of the Corrective Action Release
13 Limit;

14 b. A description of Defendants' causal analysis process, such as a root cause
15 analysis, that identified the cause(s) of the exceedance of the Corrective Action Release Limit;

16 c. Proposed actions to address each cause identified in the causal analysis
17 process, including an assessment of the efficacy of each of the following corrective actions:

18 (1) Planned or completed retrofits or retirements of Program Appliances;

19 (2) Proposal for revisions to Defendants' RCP, including additional
20 comprehensive leak tests and leak inspection;

21 (3) Proposals for installation of additional or different Fixed Leak Detection
22 Systems;

23

1 (4) An analysis of the data from the Plate Freezer Leak Database, as
2 described in Paragraphs 40 and 41;

3 (5) Proposals for assessing the efficacy of the leak detection method, or
4 requiring different methods of leak inspections; and

5 (6) Proposals for hiring of additional staff or additional training.

6 IX. THIRD PARTY VERIFICATION

7 A. **Auditor Hiring Procedures**

8 67. In accordance with the procedures set forth below, Defendants shall hire an
9 independent Third Party Auditor (“Auditor”) to perform all the duties set forth in Paragraph 75
10 through 83, in order to assess Defendants’ compliance with the requirements of this Consent
11 Decree, Section 608 of the CAA, and 40 C.F.R. Part 82, Subpart F.

12 68. Defendants shall give each Auditor a copy of this Consent Decree and all
13 appendices, as well as all other information and access necessary to complete the Audits set forth
14 herein. Defendants’ contract with the Auditor shall require the Auditor to perform all of the
15 duties in Paragraphs 75 through 83, and upon EPA’s request, within a reasonable time and upon
16 reasonable notice, to be fully available to consult with EPA about Defendants and their
17 compliance with this Consent Decree, Section 608 of the CAA, and 40 C.F.R. Part 82, Subpart F.
18 Defendants shall bear all costs associated with the Auditor, cooperate fully with any reasonable
19 requests of the Auditor, and provide the Auditor with access, upon reasonable notice and taking
20 into account operational impacts, to all records, employees, contractors, Facilities and Vessels,
21 and Large Appliances that the Auditor deems reasonably appropriate to effectively perform the
22 duties described in Paragraphs 75 through 83. Defendants shall ensure that the Auditor(s)

1 conduct the Audits in accordance with the requirements set forth in Paragraphs 75 through 83 of
2 this Decree.

3 69. Hiring Process. By February 28, 2019, Defendants shall submit to the United
4 States the name and qualifications of two (2) or more proposed independent Third Party Auditors
5 that both Defendants and each Auditor candidate certify meet the following conditions:

6 a. The Auditor should have experience with CAA Section 608 and 40 C.F.R.
7 Part 82 regulations for industrial process refrigeration appliances, and experience with industrial
8 process refrigeration and commercial refrigeration design and maintenance;

9 b. The Auditor and its personnel have not been employed by Defendants or
10 any corporate affiliates of Defendants, have not conducted research and/or development for
11 Defendants, and have not provided advisory services of any kind (including but not limited to
12 design, construction, financial, engineering, legal, or consulting services) to Defendants or any of
13 their corporate affiliates, within the last five (5) years; and

14 c. The Auditor has not been involved in the development or construction of
15 any Large Appliance at any of Defendants' Facilities or Vessels.

16 70. Defendants shall not employ the Auditor and its personnel to provide any other
17 commercial, business, or voluntary services to Defendants for a period of at least three (3) years
18 following the Auditor's submittal of its final Auditor's report, and Defendants shall not provide
19 future employment to the Auditor or any of the Auditor's personnel who managed, conducted, or
20 otherwise participated in the Audits for a period of at least three (3) years following the
21 Auditor's submittal of its final Auditor's Report pursuant to Paragraph 83 below.

22 71. The United States will notify Defendants in writing whether it approves the
23 proposed Auditor(s). Within thirty (30) Days of United States' written approval of an Auditor,

1 Defendants shall retain an approved Auditor to perform the activities set forth in Paragraphs 75
2 through 83. The contract for the auditing services shall include the restrictions described in
3 Paragraph 70.

4 72. If the United States rejects the proposed Auditors, within twenty-one (21) Days of
5 receipt of the United States' notification, Defendants shall submit for approval the names and
6 qualifications of two (2) or more proposed alternative Auditors that meet the qualifications set
7 forth in Paragraph 69. The United States will review the proposed replacement in accordance
8 with Paragraph 71.

9 73. Auditor Replacement Procedure: If the United States has approved an Auditor and
10 the United States subsequently determines independently or at the request of Defendants that the
11 approved Auditor cannot satisfactorily perform the required Audits, within sixty (60) Days of
12 learning that the Auditor cannot satisfactorily perform the Audits, Defendants shall submit to the
13 United States for approval the name and qualifications of two (2) or more proposed replacement
14 Auditors that meet the qualifications set forth in Paragraph 69 above. The United States shall
15 review the proposed replacement Auditors in accordance with Paragraph 71. If Defendants and
16 the United States do not agree on the need to select a replacement Auditor, Defendants may
17 invoke the dispute resolution procedures in Section XV (Dispute Resolution) of this Decree.

18 74. Nothing in Paragraphs 69 through 73 precludes the United States from assessing
19 stipulated penalties for missed Audit deadlines associated with the need to replace an Auditor
20 unless Defendants successfully asserts that the inability of the Auditor to perform the required
21 Audit was due to a Force Majeure event in accordance with Section XIV (Force Majeure) of the
22 Consent Decree.

1 **B. Audit Responsibilities**

2 75. The Auditor will comply with the procedures and requirements in this Section
3 IX.B relating to verification of Defendants' compliance with the requirements of this Consent
4 Decree, Section 608 of the CAA, and 40 C.F.R. Part 82, Subpart F.

5 76. Physical Audits. Beginning January 1, 2019, and until any Large Appliance
6 subject to this Paragraph has been retrofitted or retired (e.g., according to Paragraphs 46 and 47),
7 the Auditor will conduct annual Physical Audits to assess compliance at each Vessel or Facility
8 containing a Large Appliance with a Full Charge of 5,000 or more pounds of Class I or Class II
9 refrigerant. Within thirty (30) Days of the Auditor being retained, and by August 1 each year
10 beginning January 1, 2019, Defendants will provide the Auditor an anticipated annual schedule
11 for Seattle or Tacoma Vessel arrivals, and for planned system evacuation and pressure testing
12 timeframes for each Vessel with Large Appliances subject to this Paragraph. Within two (2)
13 weeks of receiving the Vessel schedule, the Auditor will send the Defendants and EPA a
14 schedule for Physical Audits. The Auditor will select and audit at least 50% of Vessels with
15 Large Appliances covered by this Paragraph each year, with each Vessel audited at least every
16 two (2) years. Vessel crew will be available upon arrival and for up to three (3) Days after arrival
17 if prearranged by the Auditor. Periodic updates to the schedule may be provided if significant
18 changes are made to the schedule. Defendants will confirm the Vessel arrival schedule with the
19 Auditor thirty (30) Days prior to arrival of the Vessel, and again seven (7) Days prior to arrival
20 of the Vessel. Schedules for pressure testing will be confirmed with the Auditor at the time the
21 contractor is scheduled to perform the pressure test, and the Auditor will be updated of any
22 changes to the schedule.

1 77. During a Physical Audit, the Auditor will visit the Vessel or Facility under audit,
2 observe leak detection procedures conducted on Large Appliances (if applicable), leak rate
3 calculation (if applicable), leak repair and verification (if applicable), recordkeeping practices,
4 and interview available employees regarding practices and procedures at that Vessel or Facility
5 related to recordkeeping, maintaining and repairing Large Appliances and related equipment, and
6 refrigerant acquisition, storage, transfer, use, and disposal.

7 78. Video Audits. Beginning January 1, 2019, until any Large Appliance subject to
8 this Paragraph has been retrofitted or retired, Defendants shall ensure that the Auditor conducts
9 an Audit of Defendant's video inspections (Paragraph 38), as follows:

10 a. Defendants will make all Video Inspections conducted available to the
11 Auditor no later than ninety (90) Days after a Video Inspection has been completed. The Auditor
12 shall review each Video Inspection within sixty (60) Days of receipt of a Video Inspection.

13 b. The Auditor will review the Video Inspection and observe Large
14 Appliances and related equipment; leak inspection procedures; and routine leak detection
15 equipment used in the procedures; practices and procedures related to recordkeeping; and, where
16 applicable, leak detection, leak rate calculation, leak repair and verification, refrigerant
17 acquisition, storage, transfer, use and disposal.

18 79. Records Audit. At least twice every calendar year, the Auditor shall conduct an
19 unannounced, unscheduled Audit of Defendants' records for all of Defendants' appliances
20 containing Covered Refrigerant. The Audits shall be conducted at least five (5) months apart
21 from each other.

22 80. In the Records Audit, the Auditor shall assess whether Defendants' records are
23 complete, accurate, and in conformity with the requirements of 40 C.F.R. Part 82, Subpart F,

1 with the RCP, and with the terms of this Consent Decree, and whether Defendants' policies,
2 practices, acts or omissions have complied with the requirements of 40 C.F.R. Part 82, subpart F,
3 with the RCP, and with the terms of this Consent Decree.

4 81. To facilitate this review, Defendants shall provide the Auditor with electronic
5 access to the Portal and the following records for each appliance:

6 a. Defendants' RCP;

7 b. Employee training materials and training attendance records;

8 c. All records required to be created under the RCP and the Consent Decree
9 for each appliance; and

10 d. All other records relating to compliance with the requirements of Section
11 608 of the CAA, 40 C.F.R. Part 82 Subpart F, with the RCP, and with the Consent Decree,
12 including but not limited to records of refrigerant purchases, use, evacuation, and disposal;
13 records relating to appliance operation, repair, refrigerant leaks, refrigerant additions or
14 refrigerant evacuation, as well as all records generated by Defendants pursuant to 40 C.F.R.
15 § 82.166.

16 82. Audit Out-briefings. Upon completion of any Physical or Records Audit, the
17 Auditor will notify the Defendants of such completion and between forty-eight (48) hours and
18 seven (7) Days after such notification will conduct an out-briefing with Defendants in which the
19 Auditor shall orally convey the major Audit Findings. If the Auditor has reviewed one or more
20 Video Inspection(s), pursuant to Paragraph 78, at least fourteen (14) Days prior to any out-
21 briefing, the Auditor shall also orally convey the major Audit Findings discovered during the
22 review of the Video Inspections. The Auditor shall notify EPA of the scheduled date of the out-
23 briefing for each Audit when scheduled, but no later than forty-eight (48) hours before the out-

1 briefing. EPA shall have the right to have its representatives (including contractors) attend the
2 out-briefing either in person or telephonically. If the out-briefing date changes, the Auditor shall
3 notify EPA at least forty-eight (48) hours prior to the out-briefing. The Auditor shall include
4 Audit Findings in the Auditor's Report submitted to EPA pursuant to Paragraph 83 below, but
5 shall also include a description of any correction(s) that may have occurred prior to submission
6 of the Auditor's Report.

7 83. Auditor's Reports. Defendants shall ensure that Auditor submits a report(s) of the
8 Audit results simultaneously to EPA and Defendants pursuant to Section XIX (Notices) of this
9 Consent Decree, as follows:

10 a. The Auditor shall submit a report of the Audit results of a Physical Audit
11 and of a Records Audit within thirty (30) Days of completing each Physical Audit or Records
12 Audit required by Paragraphs 76 through 77 and 79 through 81.

13 b. In each Records Audit Report required by this Paragraph, the Auditor shall
14 also report the Audit Findings from any Video Audit that has occurred between the most recent
15 Records Audit and the preceding Records Audit.

16 c. The Auditor shall not share any written draft reports with Defendants prior
17 to the submission of the Auditor's Report.

18 d. EPA shall give notice to Defendants as soon as possible before EPA has
19 any material communications directly with the Auditor about an Audit and give Defendants the
20 opportunity to participate in such conversations.

21 e. The Auditor's Report for Physical Audits conducted pursuant to
22 Paragraphs 76 through 77 will contain, at a minimum, the following information:
23

1 (1) A description of all the types of information and records reviewed in
2 each Audit and the equipment, processes, practices, and other items reviewed, observed, or
3 evaluated during the Audit, a description of when and how the Audit was conducted,
4 identification of Defendants' personnel interviewed by the Auditor or otherwise involved with
5 the Audit, and copies of any relevant photos taken or reviewed during the Audit;

6 (2) Each Audit Finding, identified and listed separately, along with the
7 Audit requirements set forth in Paragraph 75; and

8 (3) Auditor's Recommendations to correct each Audit Finding.

9 f. The Auditor's Report for Record Audits or Video Audits conducted
10 pursuant to Paragraphs 78 or 79 through 81, will contain, at a minimum, the following
11 information:

12 (1) A description of the records reviewed (including types of Forms) for
13 each Vessel or Facility in the Record Audit;

14 (2) Each Audit Finding, identified and listed separately, in a format that is
15 organized by Vessel or Facility and by appliance;

16 (3) Auditor's Recommendations to correct each Audit Finding; and

17 (4) For Video Audits conducted pursuant to Paragraph 78, a description of
18 any deficiencies in the quality of the video footage that impaired the Auditor's ability to assess
19 the criteria identified in Paragraph 78.b.

20 84. Neither Defendants nor the United States will be bound by the recommendations
21 or conclusions of the Third Party Auditor. However, if Defendants violate any requirement of
22 this Consent Decree, Defendants will be liable for stipulated penalties to the United States,

1 pursuant to Section XIII (Stipulated Penalties) regardless of the recommendations or conclusions
2 of the Auditor.

3 X. APPROVAL OF DELIVERABLES

4 85. After review of any plan, petition, report, or other item except for (1) RCP
5 submissions pursuant to Paragraphs 20 through 27; and (2) a petition determining compliance
6 with the loss cap program pursuant to Paragraphs 102 through 103 that is submitted for EPA
7 approval pursuant to the Consent Decree, EPA shall, in writing:

- 8 a. Approve the submission;
9 b. Approve the submission upon specified conditions;
10 c. Approve part of the submission and disapprove the remainder; or
11 d. Disapprove the submission.

12 86. If the submission is approved pursuant to Paragraph 85.a, Defendants shall take
13 all actions required by the plan, report, or other document, in accordance with the schedules and
14 requirements of the plan, report, or other document, as approved. If the submission is
15 conditionally approved or approved only in part pursuant to Paragraph 85.b or 85.c, Defendants
16 shall, upon written direction from EPA, take all actions required by the approved plan, report, or
17 other item that EPA determines are technically severable from any disapproved portions, subject
18 to Defendants' right to dispute only the specified conditions or the disapproved portions, under
19 Section XV (Dispute Resolution).

20 87. If the submission is disapproved in whole or in part pursuant to Paragraph 85.c or
21 85.d, Defendants shall, within forty-five (45) Days or such other time as the Parties agree to in
22 writing, correct all deficiencies and resubmit the plan, report, or other item, or disapproved
23 portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission is

1 approved in whole or in part, Defendants shall proceed in accordance with the preceding
2 Paragraph.

3 88. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in
4 whole or in part, EPA may again require Defendants to correct any deficiencies, in accordance
5 with the preceding Paragraphs, subject to Defendants' right to invoke Dispute Resolution and the
6 right of EPA to seek stipulated penalties as provided in the preceding Paragraphs.

7 89. Any stipulated penalties applicable to the original submission, as provided in
8 Section XIII, shall accrue during the forty-five (45) Day or other specified period set forth in
9 Paragraph 87, but shall not be payable unless the resubmission is untimely or is disapproved in
10 whole or in part; provided that, if the original submission was so deficient as to constitute a
11 material breach of Defendants' obligations under the Decree, the stipulated penalties applicable
12 to the original submission shall be due and payable notwithstanding any subsequent
13 resubmission.

14 90. Permits. Where any compliance obligation under this Decree requires Defendants
15 to obtain a federal, state, or local permit or approval, Defendants shall submit timely and
16 complete applications and take all other actions necessary to obtain all such permits or approvals.
17 Defendants may seek relief under the provisions of Section XIV (Force Majeure) for any delay
18 in obtaining any permit or approval required to fulfill such obligation, if such Defendants have
19 submitted timely and complete applications and have taken all other actions necessary to obtain
20 all such permits or approvals.

21 XI. REPORTING REQUIREMENTS

22 91. By no later than March, 31, 2019, Defendants shall submit to EPA copies of all
23 records required under 40 C.F.R. §§ 82.157 and 82.166 that were generated during the preceding

1 Calendar Year. By no later than March 31 of each Calendar Year beginning January 1, 2020,
2 until termination of the Decree pursuant to Section XXIII (Termination), Defendants shall
3 submit to EPA:

4 a. Copies of all records required under 40 C.F.R. §§ 82.157 and 82.166, and
5 copies of any other records required to be uploaded to the Electronic Records Portal pursuant to
6 Paragraph 44, that were generated during the preceding Calendar Year;

7 b. Written certification of any retrofits or retirements pursuant to Paragraphs
8 16 through 18, 46 through 47, and 48 that were completed in the preceding Calendar Year;

9 c. Information and records required to be submitted under the Annual
10 Refrigerant Loss Cap Program, as detailed in Paragraph 65;

11 d. A description (including Full Charge) of any new Large Appliances put
12 into service during the preceding Calendar Year; the date(s) each Large Appliance was acquired,
13 installed, and put into service; and identification of which new Large Appliances are subject to
14 the Annual Refrigerant Loss Cap Program;

15 e. Documentation of any comprehensive leak tests and inspections that
16 demonstrates that the comprehensive leak tests and inspections are undertaken in accordance
17 with Paragraphs 28 and 29;

18 f. Documentation of Defendants' compliance efforts during the preceding
19 calendar year pertaining to routine leak detection (Paragraphs 31- 33), leak inspections
20 (Paragraphs 34 - 38), leak repair (Paragraph 39), and the Plate Freezer Tracking System
21 (Paragraph 41);

22 g. A list of the names and titles of all employees at each Facility or Vessel
23 performing obligations under this Consent Decree that includes a designation of which

1 employees were trained in accordance with the requirements of Paragraphs 42 and 43 during the
2 preceding Calendar Year, the name of the trainer(s) and the dates of the training(s);

3 h. Access to, or copies of, the training materials other than RCP and related
4 SOPs used to address the requirements of Paragraphs 42 and 43 during the preceding Calendar
5 Year;

6 i. A current copy of the RCP, reflecting in redline any changes made to the
7 RCP during the preceding Calendar Year pursuant to Paragraph 21. If more than one revision
8 was made, submit each version and indicate its effective date(s); and

9 j. A certification of compliance during the previous calendar year with those
10 components of the RCP required in Paragraph 20.

11 92. Within sixty (60) Days of receiving each Auditor's Report required by Paragraph
12 83, Defendants shall submit to EPA a response to the Auditor's Report. Defendants' responses
13 shall include, at a minimum:

14 a. A description of Defendants' actions to address each of the Audit
15 Findings, including schedules;

16 b. An explanation of any Audit Findings identified by the Auditor's Report
17 with which the Defendants do not agree; and

18 c. For any actions recommended by the Third Party Auditor that Defendants
19 do not intend to implement, an explanation for why Defendants will not or cannot implement the
20 recommendation.

21 93. If Defendants violate, or have reason to believe that they may violate, any
22 requirement of the Consent Decree, Defendants shall provide a written report to the United
23 States regarding such violation and its likely duration, within ten (10) business days of the date

1 Defendants first become aware of the violation, and include within the report an explanation of
2 the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or
3 minimize such violation. If the cause of a violation cannot be fully explained at the time the
4 report required under this Paragraph is due, Defendants shall so state in the report. Defendants
5 shall investigate the cause of the violation and shall then submit an amendment to the report,
6 including a full explanation of the cause of the violation, within thirty (30) Days of the date
7 Defendants become aware of the cause of the violation. Nothing in this Paragraph or the
8 following Paragraph relieves Defendants of their obligation to provide the notice required by
9 Section XIV (Force Majeure).

10 94. Whenever any violation of the Consent Decree or any other event affecting
11 Defendants' performance under the Decree, or the performance of their Facilities or Vessels,
12 may pose an immediate threat to the public health or welfare or the environment, Defendants
13 shall notify EPA orally or by electronic transmission as soon as possible, but no later than
14 twenty-four (24) hours after Defendants first knew of the violation or event. This procedure is in
15 addition to the requirements set forth in the preceding Paragraph.

16 95. All reports shall be submitted according to Section XIX (Notices).

17 96. Each report submitted by Defendants under this Section shall be signed by an
18 official of the submitting party and include the following certification:

19 I certify under penalty of law that this document and all attachments were
20 prepared under my direction or supervision in accordance with a system
21 designed to assure that qualified personnel properly gather and evaluate
22 the information submitted. Based on my inquiry of the person or persons
23 who manage the system, or those persons directly responsible for
24 gathering the information, the information submitted is, to the best of my
25 knowledge and belief, true, accurate, and complete. I have no personal
26 knowledge that the information submitted is other than true, accurate, and
27 complete. I am aware that there are significant penalties for submitting

1 false information, including the possibility of fine and imprisonment for
2 knowing violations.

3 97. This certification requirement does not apply to emergency or similar
4 notifications where compliance would be impractical.

5 98. The reporting requirements of the Consent Decree do not relieve Defendants of
6 any reporting obligations required by the Act or implementing regulations, or by any other
7 federal, state, or local law, regulation, permit, or other requirement.

8 99. Any information provided pursuant to the Consent Decree may be used by the
9 United States in any proceeding to enforce the provisions of the Consent Decree and as
10 otherwise permitted by law.

11 XII. PETITIONS

12 100. Replacement Refrigerant. At any time during the pendency of this Consent
13 Decree, Defendants may petition EPA to add a substance to the definition of Replacement
14 Refrigerant. The petition shall include:

- 15 a. The chemical and trade name of the refrigerant;
- 16 b. The name of the manufacturer;
- 17 c. The chemical composition of the refrigerant;
- 18 d. The refrigerant's ozone-depleting potential (if any);
- 19 e. Description of the application for which the refrigerant will be used;
- 20 f. Evaluation of the refrigerant's efficiency in the proposed application and
21 corresponding environmental impacts; and
- 22 g. Evaluation of the environmental impacts of reclaiming the refrigerant.

1 Majeure). A violation includes failing to perform any obligation required by the terms of the
2 Decree, including any work plan or schedule approved under the Decree, according to all
3 applicable requirements of the Decree and within the specified time schedules established by or
4 approved under the Decree.

5 105. Late Payment of Civil Penalty. If Defendants fail to pay the civil penalty required
6 to be paid under Section IV (Civil Penalty) when due, Defendants shall pay a stipulated penalty
7 of \$2,500 per Day for each Day that the payment is late.

8 106. Failure to Retrofit or Retire an appliance. If Defendants fail to retrofit or retire an
9 appliance in accordance with the requirements of this Consent Decree, Defendants shall pay a
10 stipulated penalty as follows:

11 a. In accordance with the requirements of Paragraphs 46 and 47, a stipulated
12 penalty of \$750 per Day for each Day that the retrofit or retirement is late.

13 b. In accordance with the requirements of Paragraphs 16 and 17, a stipulated
14 penalty of \$500 per Day for each Day that the retrofit or retirement is late.

15 c. In accordance with the requirements of Paragraph 18, a stipulated penalty
16 of \$100 Per Day for each Day that the retrofit is late.

17 107. Third Party Verification. If Defendants fail to comply with a Third Party
18 Verification requirement in accordance with Section IX (Third Party Verification) of this
19 Consent Decree, Defendants shall pay a stipulated penalty as follows:

20 a. For a failure to hire an Auditor in accordance with the requirements of
21 Paragraphs 67 through 74, a stipulated penalty of \$10,000 per year;

22 b. For failures to ensure that the Auditor conducts Audits (Paragraphs 75
23 through 81), a stipulated penalty of \$1,500 per missed Audit;

1 c. For failures to ensure that the Auditor conducts an Audit Out-briefing
2 (Paragraph 82), a stipulated penalty of \$250 per Day per for each Day the Audit Out-briefing is
3 late; and

4 d. For failures to submit Auditor's Reports (Paragraph 83) in accordance
5 with required deadlines, a stipulated penalty of \$250 per Day for each Day that the Auditor's
6 Report is late.

7 108. Refrigerant Compliance Plan and Additional Compliance Requirements. If
8 Defendants fail to implement the RCP at a Vessel or Facility as required by Paragraphs 19 and
9 20, or to submit revisions in accordance with Paragraphs 21 and 27, Defendants shall pay a
10 stipulated penalty of \$100 per Day for each Day the failure to implement the RCP or to submit
11 revisions thereto occurred. For violations of additional compliance requirements, Defendants
12 shall pay a stipulated penalty as follows:

13 a. For failures to conduct comprehensive leak tests and inspections, in
14 accordance with Paragraphs 28 and 29, a stipulated penalty of \$1,500 per each missed deadline.

15 b. For failures to install and maintain fixed leak detection systems and to add
16 to and maintain fluorescent dye in Large Appliances, in accordance with Paragraphs 31 through
17 33, a stipulated penalty of \$250 per Day for each failure to install a leak detector and fluorescent
18 dye, and of \$100 per Day for each failure to properly calibrate and maintain leak detectors and to
19 maintain fluorescent dye within Large Appliances.

20 c. For failures to conduct leak inspections on Large Appliances, in
21 accordance with Paragraphs 34 through 36, a stipulated penalty of:

22 (1) \$750 per each missed deadline, for each Large Appliance with
23 greater than 5,000 pounds of Class I or Class II refrigerant; and

1 (2) \$250 per each missed deadline, for each Large Appliance with
2 between 50 and 5,000 pounds of Class I or Class II refrigerant.

3 d. For failures to repair identified leaks, in accordance with Paragraph 39, a
4 stipulated penalty of \$1,000 per Day for each Day that Defendants fail to repair an identified leak
5 on a Large Appliance.

6 e. For failures to train employees in accordance with Paragraph 42 or to
7 implement a training program that complies with the requirements of Paragraphs 42 through 43,
8 a stipulated penalty of \$1,500 per Year for each year that Defendants fail to implement a
9 compliant training program and \$250 per each missed deadline for each employee that
10 Defendants fail to train;

11 f. For failures to create and maintain an Electronic Records Portal, in
12 accordance with Paragraphs 44 and 45, a stipulated penalty of \$250 per Day.

13 109. Reporting. If Defendants fail to comply with any Reporting requirement in
14 accordance with Section XI (Reporting Requirements) of this Consent Decree, Defendants shall
15 pay a stipulated penalty of \$250 per Day for each Day that the report is late. Stipulated penalties
16 for noncompliance with Paragraph 91.a shall apply only for Large Appliances that are subject to
17 the maintenance and leak repair requirements of 40 C.F.R. § 82.157.

18 110. Recordkeeping. If Defendants fail to comply with any Recordkeeping requirement
19 as required by Paragraph 20.i, Section 608 of the CAA, 42 U.S.C. § 7671g, and its implementing
20 regulations at 40 C.F.R. Part 82, Subpart F, Defendants shall pay a stipulated penalty as follows:

21 a. For a failure to maintain records by failing to complete a required record,
22 or a record that cannot be linked to the Large Appliance served or the date of service, a stipulated
23 penalty of \$250 per record.

1 b. For a failure to maintain records by having a record otherwise deficient in
2 meeting the terms of the Consent Decree, a stipulated penalty of \$100 per record.
3 Stipulated penalties for noncompliance with Paragraph 110 shall apply only for records
4 associated with Large Appliances that are subject to the maintenance and leak repair
5 requirements of 40 C.F.R. § 82.157.

6 111. SEP Compliance. If Defendants fail to satisfactorily complete the SEP, required
7 by Paragraphs 48 through 58, Defendants shall pay:

8 a. \$500 for each Day for which it fails to meet an applicable deadline set
9 forth in Paragraph 48, and \$250 for each Day for which it fails to meet an applicable deadline set
10 forth in Section VII (Supplemental Environmental Project) of this Consent Decree, other than
11 those deadlines set forth in Paragraph 48; or

12 b. \$525,000 if Defendants fail to implement the SEP, or halt or abandon
13 work on the SEP. The penalty under this subparagraph b. shall accrue as of the date specified for
14 completing the SEP or the date performance ceases, whichever is earlier.

15 112. Annual Refrigerant Loss Cap Program. Starting January 1, 2019, if, in a calendar
16 year, Defendants release Class I or Class II refrigerant in an amount that equals or exceeds the
17 Stipulated Penalty Release Limit described in Paragraph 61.b, Defendants shall pay a stipulated
18 penalty of \$50 for each pound of refrigerant released up to 5.5% in excess of the Stipulated
19 Penalty Release Limits (that is, if the total amount of Class I and Class II refrigerant released is
20 between 25% and 30.5% of the total charge of all Program Appliances), \$75 for each pound of
21 Class I and Class II refrigerant released from 5.5% to 35% in excess of the Stipulated Penalty
22 Release Limits (that is, if the amount of Class I and Class II refrigerant released is between
23 30.5% and 60% of the total charge of all Program Appliances), and \$100 for each pound of Class

1 I and Class II refrigerant released over 35% in excess of the Stipulated Penalty Release Limits
2 (that is, if the amount of Class I and Class II refrigerant released exceeds 60% of the total charge
3 of all Program Appliances).

4 113. For all other violations of this Consent Decree not addressed by Paragraphs 105
5 through 112 above, Defendants shall pay a stipulated penalty of \$100 that accrues on a per-
6 violation, per-Day basis.

7 114. Stipulated penalties under this Section shall begin to accrue on the Day after
8 performance is due or on the Day a violation occurs, whichever is applicable, and shall continue
9 to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated
10 penalties shall accrue simultaneously for separate violations of the Consent Decree.

11 115. Defendants shall pay any stipulated penalty within sixty (60) Days of receiving
12 the United States' written demand, except as provided in Paragraph 117 of this Consent Decree.

13 116. The United States may, in the unreviewable exercise of its discretion, reduce or
14 waive stipulated penalties otherwise due it under the Consent Decree.

15 117. Stipulated penalties shall continue to accrue, as provided in Paragraph 114, during
16 any Dispute Resolution, but need not be paid until the following:

17 a. If the dispute is resolved by agreement of the Parties or by a decision of
18 EPA that is not appealed to the Court, Defendants shall pay accrued penalties determined to be
19 owing, together with Interest, to the United States within thirty (30) Days of the effective date of
20 the agreement or the receipt of EPA's decision or order.

21 b. If the dispute is appealed to the Court and the United States prevails in
22 whole or in part, Defendants shall pay all accrued penalties determined by the Court to be owing,
23

1 together with Interest, within sixty (60) Days of receiving the Court's decision or order, except
2 as provided in subparagraph c, below.

3 c. If any Party appeals the District Court's decision, Defendants shall pay all
4 accrued penalties determined to be owing, together with Interest, within fifteen (15) Days of
5 receiving the final appellate court decision.

6 118. Defendants shall pay stipulated penalties owing to the United States in the manner
7 set forth and with the confirmation notices required by Paragraph 13, except that the transmittal
8 letter shall state that the payment is for stipulated penalties and shall state for which violation(s)
9 the penalties are being paid.

10 119. If Defendants fail to pay stipulated penalties according to the terms of the Consent
11 Decree, Defendants shall be liable for Interest on such penalties, as provided for in 28 U.S.C.
12 § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be
13 construed to limit the United States from seeking any remedy otherwise provided by law for
14 Defendants' failure to pay any stipulated penalties.

15 120. The payment of penalties and interest, if any, shall not alter in any way
16 Defendants' obligation to complete the performance of the requirements of the Consent Decree.

17 121. Obligations Prior to the Effective Date. Upon the Effective Date, if the Effective
18 Date is after January 1, 2019, the stipulated penalties provisions of this Decree shall be
19 retroactively enforceable to any and all violations that have occurred between January 1, 2019
20 and the Effective Date of this Decree, provided that stipulated penalties that may have accrued
21 prior to the Effective Date may not be collected unless and until this Consent Decree is entered
22 by the Court.

1 hours of when Defendants first knew that the event might cause a delay. Within seven (7) Days
2 thereafter, Defendants shall provide in writing to EPA an explanation and description of the
3 reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to
4 prevent or minimize the delay; a schedule for implementation of any measures to be taken to
5 prevent or mitigate the delay or the effect of the delay; Defendants' rationale for attributing such
6 delay to a force majeure event if it intends to assert such a claim; and a statement as to whether,
7 in the opinion of Defendants, such event may cause or contribute to an endangerment to public
8 health, welfare, or the environment. Defendants shall include with any notice all available
9 documentation supporting the claim that the delay was attributable to a force majeure. Failure to
10 comply with the above requirements shall preclude Defendants from asserting any claim of force
11 majeure for that event for the period of time of such failure to comply, and for any additional
12 delay caused by such failure. Defendants shall be deemed to know of any circumstance of which
13 Defendants, any entity controlled by Defendants, or Defendants' contractors knew or should
14 have known.

15 125. If EPA agrees that the delay or anticipated delay is attributable to a force majeure
16 event, the time for performance of the obligations under the Consent Decree that are affected by
17 the force majeure event will be extended by EPA for such time as is necessary to complete those
18 obligations. An extension of the time for performance of the obligations affected by the force
19 majeure event shall not, of itself, extend the time for performance of any other obligation. EPA
20 will notify Defendants in writing of the length of the extension, if any, for performance of the
21 obligations affected by the force majeure event.

22 126. If EPA does not agree that the delay or anticipated delay has been or will be
23 caused by a force majeure event, EPA will notify Defendants in writing of its decision.

1 within thirty (30) Days after the conclusion of the informal negotiation period, Defendants
2 invoke formal dispute resolution procedures as set forth below.

3 130. Formal Dispute Resolution. Defendants shall invoke formal dispute resolution
4 procedures, within the time period provided in the preceding Paragraph, by serving on the United
5 States a written Statement of Position regarding the matter in dispute. The Statement of Position
6 shall include, but need not be limited to, any factual data, analysis, or opinion supporting
7 Defendants' position and any supporting documentation relied upon by Defendants.

8 131. The United States shall serve its Statement of Position within forty-five (45) Days
9 of receipt of Defendants' Statement of Position. The United States' Statement of Position shall
10 include, but need not be limited to, any factual data, analysis, or opinion supporting that position
11 and any supporting documentation relied upon by the United States. The United States'
12 Statement of Position shall be binding on Defendants, unless Defendants file a motion for
13 judicial review of the dispute in accordance with the following Paragraph.

14 132. Defendants may seek judicial review of the dispute by filing with the Court and
15 serving on the United States, in accordance with Section XIX (Notices), a motion requesting
16 judicial resolution of the dispute. The motion must be filed within ten (10) Days of receipt of the
17 United States' Statement of Position pursuant to the preceding Paragraph. The motion shall
18 contain a written statement of Defendants' position on the matter in dispute, including any
19 supporting factual data, analysis, opinion, or documentation, and shall set forth the relief
20 requested and any schedule within which the dispute must be resolved for orderly
21 implementation of the Consent Decree.

1 133. The United States shall respond to Defendants' motion within the time period
2 allowed by the Local Rules of this Court. Defendants may file a reply memorandum, to the
3 extent permitted by the Local Rules.

4 134. Standard of Review. Except as otherwise provided in the Consent Decree, in any
5 dispute brought under Paragraph 132, Defendants shall bear the burden of demonstrating that
6 their position complies with this Consent Decree and that it is entitled to relief under applicable
7 principles of law. The United States reserves the right to argue that its position is reviewable
8 only on the administrative record and must be upheld unless arbitrary and capricious or
9 otherwise not in accordance with law, and Defendants reserve the right to oppose this position.

10 135. The invocation of dispute resolution procedures under this Section shall not, by
11 itself, extend, postpone, or affect in any way any obligation of Defendants under the Consent
12 Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with
13 respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but
14 payment shall be stayed pending resolution of the dispute as provided in Paragraph 117. If
15 Defendants do not prevail on the disputed issue, stipulated penalties shall be assessed and paid as
16 provided in Section XIII (Stipulated Penalties).

17 XVI. INFORMATION COLLECTION AND RETENTION

18 136. The United States and its representatives, including attorneys, contractors, and
19 consultants, shall have the right of entry into any Facility or Vessel covered by the Consent
20 Decree, at all reasonable times, upon presentation of credentials, to:

- 21 a. Monitor the progress of activities required under the Consent Decree;
22 b. Verify any data or information submitted to the United States in
23 accordance with the terms of the Consent Decree;

Consent Decree:
United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611
(202) 305-0302

1 c. Obtain samples and, upon request, splits of any samples taken by
2 Defendants or their representatives, contractors, or consultants; obtain documentary evidence,
3 including photographs and similar data; and

4 d. Assess Defendants' compliance with the Consent Decree.

5 137. Upon request, Defendants shall provide EPA or its authorized representatives
6 splits of any samples taken by Defendants. Upon request, EPA shall provide Defendants splits of
7 any samples taken by EPA.

8 138. Until five (5) years after the termination of the Consent Decree, Defendants shall
9 retain, and shall instruct their contractors and agents to preserve, all non-identical copies of all
10 documents, records, or other information (including documents, records, or other information in
11 electronic form) in their or their contractors' or agents' possession or control, or that come into
12 their or their contractors' or agents' possession or control, and that relate in any manner to
13 Defendants' performance of their obligations under the Consent Decree. This information-
14 retention requirement shall apply regardless of any contrary corporate or institutional policies or
15 procedures. At any time during this information-retention period, upon request by the United
16 States, Defendants shall provide copies of any documents, records, or other information required
17 to be maintained under this Paragraph.

18 139. At the conclusion of the information-retention period provided in the preceding
19 Paragraph, Defendants shall notify the United States at least ninety (90) Days prior to the
20 destruction of any documents, records, or other information subject to the requirements of the
21 preceding Paragraph and, upon request by the United States, Defendants shall deliver any such
22 documents, records, or other information to EPA. Defendants may assert that certain documents,
23 records, or other information is privileged under the attorney-client privilege or any other

1 privilege recognized by federal law. If Defendants assert such a privilege, they shall provide the
2 following: (a) the title of the document, record, or information; (b) the date of the document,
3 record, or information; (c) the name and title of each author of the document, record, or
4 information; (d) the name and title of each addressee and recipient; (e) a description of the
5 subject of the document, record, or information; and (f) the privilege asserted by Defendants.
6 However, no documents, records, or other information created or generated pursuant to the
7 requirements of the Consent Decree shall be withheld on grounds of privilege.

8 140. Defendants may also assert that information required to be provided under this
9 Section is protected as Confidential Business Information (“CBI”) under 40 C.F.R. Part 2. As to
10 any information that Defendants seek to protect as CBI, Defendants shall follow the procedures
11 set forth in 40 C.F.R. Part 2.

12 141. The Consent Decree in no way limits or affects any right of entry and inspection,
13 or any right to obtain information, held by the United States pursuant to applicable federal laws,
14 regulations, or permits, nor does it limit or affect any duty or obligation of Defendants to
15 maintain documents, records, or other information imposed by applicable federal or state laws,
16 regulations, or permits.

17 XVII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

18 142. The Consent Decree resolves the civil claims of the United States against
19 Defendants for any violations of 40 C.F.R. Part 82, Subpart F at Defendants’ Facilities and
20 Vessels through March 31, 2016.

21 143. The United States reserves all legal and equitable remedies available to enforce
22 the provisions of the Consent Decree, except as expressly stated in Paragraph 142. The Consent
23 Decree shall not be construed to limit the rights of the United States to obtain penalties or

1 injunctive relief under the Act or implementing regulations, or under other federal laws,
2 regulations, or permit conditions, except as expressly stated in Paragraph 142. The United States
3 further reserves all legal and equitable remedies to address any imminent and substantial
4 endangerment to the public health or welfare or the environment arising at, or posed by,
5 Defendants' Vessels and/or Facilities, whether related to the violations addressed in the Consent
6 Decree or otherwise.

7 144. In any subsequent administrative or judicial proceeding initiated by the United
8 States for injunctive relief, civil penalties, other appropriate relief relating to the Defendants'
9 Vessels and/or Facilities or Defendants' violations, Defendants shall not assert, and may not
10 maintain, any defense or claim based upon the principles of waiver, res judicata, collateral
11 estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any
12 contention that the claims raised by the United States in the subsequent proceeding were or
13 should have been brought in the instant case, except with respect to claims that have been
14 specifically resolved pursuant to Paragraph 142.

15 145. The Consent Decree is not a permit, or a modification of any permit, under any
16 federal, State, or local laws or regulations. Defendants are responsible for achieving and
17 maintaining complete compliance with all applicable federal, State, and local laws, regulations,
18 and permits; and Defendants' compliance with the Consent Decree shall be no defense to any
19 action commenced pursuant to any such laws, regulations, or permits, except as set forth herein.
20 The United States does not, by its consent to the entry of the Consent Decree, warrant or aver in
21 any manner that Defendants' compliance with any aspect of the Consent Decree will result in
22 compliance with provisions of the Act, 42 U.S.C. § 7401 *et seq.*, or with any other provisions of
23 federal, state, or local laws, regulations, or permits.

Consent Decree:
United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611
(202) 305-0302

1 As to the United States by email: eescdcopy.enrd@usdoj.gov
2 Re: DJ # 90-5-2-1-11183
3
4 As to the United States by mail: EES Case Management Unit
5 Environment and Natural Resources Division
6 U.S. Department of Justice
7 P.O. Box 7611
8 Washington, D.C. 20044-7611
9 Re: DJ # 90-5-2-1-11183
10
11 As to EPA: Katie McClintock
12 1200 Sixth Avenue, Suite 155
13 Seattle, Washington 98101
14 Mcclintock.katie@epa.gov
15 (206) 553-2143
16
17 As to Defendant: Shawn Stokes
18 Environmental Affairs Director
19 Trident Seafoods Corporation
20 5303 Shilshole Avenue NW
21 Seattle, Washington 98107
22 sstokes@tridentseafoods.com
23 (206) 297-6646

24 150. Any Party may, by written notice to the other Parties, change its designated notice
25 recipient or notice address provided above.

26 151. Notices submitted pursuant to this Section shall be deemed submitted upon
27 mailing, unless otherwise provided in the Consent Decree or by mutual agreement of the Parties
28 in writing.

29 XX. EFFECTIVE DATE

30 152. The Effective Date of the Consent Decree shall be the date upon which the
31 Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted,
32 whichever occurs first, as recorded on the Court's docket.

1 XXI. RETENTION OF JURISDICTION

2 153. The Court shall retain jurisdiction over this case until termination of the Consent
3 Decree, for the purpose of resolving disputes arising under the Decree or entering orders
4 modifying the Decree, pursuant to Sections XV (Dispute Resolution) and XXII (Modification),
5 or effectuating or enforcing compliance with the terms of the Decree.

6 XXII. MODIFICATION

7 154. Except as otherwise stated in Paragraph 21, the terms of this Consent Decree,
8 including any attached appendices, may be modified only by a subsequent written agreement
9 signed by all the Parties. Where the modification constitutes a material change to this Decree, it
10 shall be effective only upon approval by the Court.

11 155. Any disputes concerning modification of the Decree shall be resolved pursuant to
12 Section XV (Dispute Resolution), provided, however, that, instead of the burden of proof
13 provided by Paragraph 134, the Party seeking the modification bears the burden of demonstrating
14 that it is entitled to the requested modification in accordance with Federal Rule of Civil
15 Procedure 60(b).

16 XXIII. TERMINATION

17 156. Certificate of Completion: Applicable Sections. Prior to moving for Termination
18 under Paragraphs 161 through 163 below, the Defendants may seek to certify completion of one
19 or more of the following Sections of this Consent Decree, subject to the Standard for Completion
20 in Paragraph 157:

- 21 a. Section V (Compliance Requirements)
- 22 b. Section VIII (Annual Refrigerant Loss Cap Program)
- 23 c. Section IX (Third Party Verification)

1 157. Standard for Completion. No Section of this Consent Decree listed in Paragraph
2 156 shall be certified complete unless Defendants have satisfactorily completed and are in full
3 satisfaction of all requirements of the applicable Section(s) for three consecutive calendar years,
4 beginning any time after the third year after the Effective Date. Notwithstanding any Certificate
5 of Completion Defendants may obtain for Section V (Compliance Requirements), the
6 *Independence* and the *Island Enterprise* must continue to comply with all of the requirements of
7 Section V until the date that each Vessel is retrofitted or retired in accordance with the
8 requirements of Paragraphs 46 and 47.

9 158. Certificate of Completion: Defendants' Actions. If Defendants conclude that any
10 of the Sections of this Consent Decree identified in Paragraph 156 above have met the Standard
11 of Completion, then Defendants may submit a written report to EPA describing the activities
12 undertaken and certifying that Defendants have met the Standard of Completion for that
13 Section(s). The report shall contain the following statement, signed by a responsible corporate
14 official of the Defendants:

15 To the best of my knowledge, after appropriate
16 investigation, I certify that the information contained in or
17 accompanying this submission is true, accurate, and complete. I
18 am aware that there are significant penalties for submitting false
19 information, including the possibility of fine and imprisonment for
20 knowing violations.

21 159. Certificate of Completion: EPA Actions. Upon receipt of Defendants'
22 certification, EPA shall notify the Defendants in writing whether the requirements set forth in the
23 applicable Section have been completed in accordance with this Consent Decree:

24 a. If EPA concludes that Defendants have not met the Standard for
25 Completion for the applicable Section(s) presented in Defendants' written report submitted

1 pursuant to Paragraph 158, EPA will notify the Defendants in writing as to the activities that
2 EPA believes must be undertaken to complete the applicable Section of this Consent Decree. The
3 Defendants shall perform all activities described in the notice, subject to the terms of this
4 Consent Decree and Defendants' right to invoke the dispute resolution procedures set forth in
5 Section XV (Dispute Resolution); and/or

6 b. If EPA concludes that Defendants have met the Standard of Completion
7 for the applicable Section(s) presented in Defendants' written report submitted pursuant to
8 Paragraph 158, EPA shall so certify in writing to the Defendants. This certification shall
9 constitute the Certification of Completion of the applicable Section or part for purposes of this
10 Consent Decree.

11 160. Certificate of Completion: No Impediment to Stipulated Penalty Demand.
12 Nothing in Paragraphs 157 through 159 above shall preclude the United States from seeking
13 stipulated penalties for a violation of any of the requirements of this Consent Decree based on
14 acts or omissions occurring prior to the issuance of a Certificate of Completion or if the
15 Certificate of Completion is based on inaccurate representations by Defendants. In addition,
16 nothing in Paragraphs 157 through 159 above shall permit Defendants to fail to implement any
17 other ongoing obligations under this Consent Decree regardless of whether a Certificate of
18 Completion has been issued for certain Sections.

19 161. Termination. Any time after Defendants have:

20 a. completed three consecutive calendar years of satisfactory compliance
21 with Sections V (Compliance Requirements), VIII (Annual Refrigerant Loss Cap Program, and
22 IX (Third Party Verification) of the Consent Decree, beginning any time after the third year after
23 the Effective Date;

1 challenge any provision of the Decree, unless the United States has notified Defendants in
2 writing that it no longer supports entry of the Decree.

3 XXV. SIGNATORIES/SERVICE

4 165. Each undersigned representative of Defendants and the Assistant Attorney
5 General for the Environment and Natural Resources Division of the Department of Justice
6 certifies that he or she is fully authorized to enter into the terms and conditions of the Consent
7 Decree and to execute and legally bind the Party he or she represents to this document.

8 166. The Consent Decree may be signed in counterparts, and its validity shall not be
9 challenged on that basis. Defendants agree to accept service of process by mail with respect to all
10 matters arising under or relating to the Consent Decree and to waive the formal service
11 requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any
12 applicable Local Rules of this Court including, but not limited to, service of a summons.
13 Defendants need not file an answer to the complaint in this action unless or until the Court
14 expressly declines to enter this Consent Decree.

15 XXVI. INTEGRATION

16 167. The Consent Decree constitutes the final, complete, and exclusive agreement and
17 understanding among the Parties with respect to the settlement embodied in the Decree and
18 supersedes all prior agreements and understandings, whether oral or written, concerning the
19 settlement embodied herein. The Parties acknowledge that there are no representations,
20 agreements, or understandings relating to the settlement other than those expressly contained in
21 the Consent Decree.

1 XXVII. FINAL JUDGMENT

2 168. Upon approval and entry of the Consent Decree by the Court, the Consent Decree
3 shall constitute a final judgment of the Court as to the United States and Defendants.

4 XXVIII. 26 U.S.C. SECTION 162(f)(2)(A)(ii) IDENTIFICATION

5 169. For purposes of the identification requirement of Section 162(f)(2)(A)(ii) of the
6 Internal Revenue Code, 26 U.S.C. § 162(f)(2)(A)(ii), performance of Section II (Applicability),
7 Paragraph 9; Section V (Compliance Requirements), Paragraphs 15 through 21, 24 through 25,
8 28-45; Section VI (Retrofits), Paragraphs 46 through 47; Section VIII (Annual Refrigerant Loss
9 Cap Program), Paragraphs 59 through 66; Section IX (Third Party Verification), Paragraphs 67-
10 69, 71 through 73, 75 through 83; Section X (Approval of Deliverables), Paragraphs 85 through
11 86, 90; Section XI (Reporting Requirements), Paragraphs 91 through 93, 95 through 96; Section
12 XII (Petitions), Paragraphs 100-101; Section XVI (Information Collection and Retention),
13 Paragraphs 136 through 139; and Appendix A, is restitution or required to come into compliance
14 with law.

15 XXIX. APPENDIX

16 170. Appendix A is Defendants' Refrigerant Compliance Plan, current as of the date of
17 lodging, and is attached to and part of this Consent Decree

Dated and entered this _____ day of _____, 2018.

UNITED STATES DISTRICT JUDGE

Western District of Washington

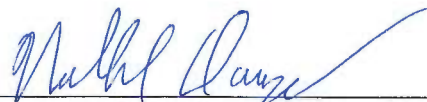
Consent Decree:
United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611
(202) 305-0302

FOR THE UNITED STATES OF AMERICA:

2/15/19

Date



NATHANIEL DOUGLAS
Deputy Chief
Environmental Enforcement Section



JOHN BRODERICK
DANICA ANDERSON GLASER
Trial Attorneys
Environmental Enforcement Section
Environment and Natural Resources Division
United States Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, D.C. 20044-7611
Tel.: (202) 305-0302
Email: John.broderick@usdoj.gov
Email: Danica.glaser@usdoj.gov

Brian T. Moran
United States Attorney
Western District of Washington

Brian Kipnis
Assistant United States Attorney
Western District of Washington

Consent Decree:
United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611
(202) 305-0302

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

Feb 15, 2019

Date



ALLYN STERN
Regional Counsel
U.S. Environmental Protection Agency, Region 10

BRETT DUGAN
Assistant Regional Counsel
U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue, M/S ORC-113
Seattle, WA 98101

Consent Decree:
United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611
(202) 305-0302

FOR DEFENDANTS:

12/21/18
Date

Joseph J. Stesha
FOR TRIDENT SEAFOODS CORPORATION

12/21/18
Date

Joseph J. Stesha
FOR ROYAL VIKING, INC.

12/21/18
Date

Joseph J. Stesha
FOR GOLDEN DAWN, LLC

Consent Decree:
United States v. Trident Seafoods, et. al.

UNITED STATES DEPARTMENT OF JUSTICE
Environment and Natural Resources Division
P.O. Box 7611, Washington, DC 20044-7611
(202) 305-0302

Refrigerant Compliance Plan (RCP)



Revision Number: 0
Revision Date: 08/20/2018

This page intentionally left blank

Table of Contents

Introduction	6
Contact Information.....	7
Document Control.....	7
Background.....	8
Ozone Depleting Substances and their Substitutes.....	9
Phase-Out of HCFC Production and Importation.....	9
The Clean Air Act in Relation to Ozone Depleting Substances	10
CFCs, HCFCs, and HFCs.....	11
MARPOL (vessels only).....	12
Regulatory Requirements and Consent Decree Overview.....	13
Summary of 40 CFR, Part 82, Subpart F Requirements	14
Summary of MARPOL, Annex VI, Regulation 12 Requirements (vessels only).....	15
Summary of Consent Decree Requirements.....	15
Refrigerant Policies & Responsibilities	16
Trident Seafoods Refrigerant Policy	17
Management Responsibilities.....	18
Procedures.....	23
Covered Systems and Appliances	24
Electronic Records Portal (per Consent Decree).....	24
Recordkeeping System.....	24
Retention of Logs and Records (per Consent Decree).....	27
Standard Operating Procedures	27
Refrigerant Tracking in Systems and Appliances	27
Refrigerant Tracking in Inventory	28
Certified Technicians.....	28
Contractors	29
Adding and Purchasing Refrigerant	30
Refrigerant Recovery	30
Maintenance, Service, and Repairs.....	31
Disposal	31
Refrigerants	32
Health and Safety Issues	33
Purchasing, Selling, Distribution	33
Venting and Releases.....	34
Used Refrigerant (Recovered, Reclaimed, Recycled).....	34
Recovery and Recycling Equipment.....	34
Storage of Refrigerants	35
Lubricants.....	35
Small Appliances (Appliances & Systems with Charges at or under 5 Pounds)	36
Definition of Small Appliance.....	37
MARPOL Requirements for Equipment Inventory (vessels only)	37
EPA Requirements for Tracking Refrigerants in Small Appliances.....	37
Maintenance, Service, and Repairs.....	37

Disposal	38
Medium Appliances (Appliances & Systems with Charges between 5 and 50 Pounds)	39
Definition of Medium Appliance	40
MARPOL Requirements for Equipment Inventory (vessels only)	40
EPA Requirements for Tracking Refrigerants in Medium Appliances.....	40
Maintenance, Service, and Repairs.....	40
Disposal	41
Retrofit	42
Large Appliances (Appliances & Systems with Full Charges of 50 or More Pounds).....	43
Definition of Large Appliance.....	44
MARPOL Requirements for Equipment Inventory (vessels only)	44
EPA Requirements for Tracking Refrigerants in Large Appliances.....	44
Full Charge Determination.....	44
Comprehensive Leak Tests and Inspections (per Consent Decree).....	45
Routine Leak Inspections	46
Plate Freezer Leak Tracking System (per Consent Decree)	48
Video Recordings	48
Maintenance, Service, and Repairs.....	48
Leak Repairs (per Consent Decree).....	50
Leak Rate Calculations	50
Disposal	52
Chronically Leaking Appliances (Annual Leak Rate Calculation).....	52
Corporate Responsibilities	53
Responsibility	54
Annual Training	54
Annual Refrigerant Loss Cap Program (per the Consent Decree).....	55
Fixed Leak Detector Installation Procedures (per the Consent Decree).....	55
Fluorescent Dye	56
Repair Extensions.....	56
Retrofit or Retirement Plan for Leaking Appliances (per Section 608).....	57
Mothballing.....	58
Retrofit or Retirement Plan (per Consent Decree)	58
RCP Update Procedures (per the Consent Decree)	60
Third Party Verification Procedures (per the Consent Decree)	60
EPA Reporting Procedures (per the Consent Decree)	60
Consent Decree Violation Reporting Procedures	60
Section 608 Reporting Procedures	61
Regulatory Requirements Glossary	62
Appendix A: Standard Operating Procedures	71
Appendix B: Forms.....	72

Table of Figures

Table 1. Phaseout schedule of HCFC production and importation.....	10
Table 2. Information on CFCs, HCFCs, and HFCs.....	11
Table 3. Compliance dates for regulatory updates.....	14
Table 4. Technician certification types.	29
Table 5. Evacuation levels for Small Appliances.	38
Table 6. Leak inspection requirements for systems with a charge of 50 or more lbs.	47
Table 7. Trigger leak rates for systems with a charge of 50 or more lbs.	51
Table 8. Consent Decree retrofit/retirement schedule.	59
Table 9. SEP retrofit/retirement schedule.	59

Introduction

- 40 CFR Part 82, Subpart F was amended significantly, effective January 1, 2017. Not all requirements take effect immediately; rather they will be phased-in between 2017 and 2019. See Table 3 for specifics. In general, this plan treats all requirements as currently in effect to prepare users for future compliance, reduce the frequency of necessary updates, and reduce the risk of non-compliance as the requirements are phased in. This manual does not alter legal requirements. For actual legal requirements, see the current requirements of Section 608.
- Trident Seafoods signed a **Consent Decree** with the Environmental Protection Agency (EPA) which creates additional enforceable requirements for the Trident Seafoods facilities and vessels. This manual outlines the Consent Decree requirements relevant to the operations described in the manual, and will draw specific attention to those requirements by marking them as required by the Consent Decree (example: “per the Consent Decree”). Use the following key points when the Consent Decree is referenced:
 - The Consent Decree differentiates between “Covered Refrigerant” and “Class I or Class II Refrigerant.” Use the following definitions:
 - **Covered Refrigerants** include CFCs, HCFCs, *and* HFCs.
 - **Class I and Class II Refrigerants** include CFCs and HCFCs.
 - In the event of a conflict between the Consent Decree and this manual, or a conflict between the regulations and this manual, the obligations in the Consent Decree and the regulations govern. This manual is designed to assist employees with meeting regulatory and Consent Decree obligations; it does not replace or change those obligations.
 - Consent Decree requirements may terminate over time. This plan may be revised accordingly as requirements are terminated.
- All Trident Seafoods vessels must comply with **MARPOL** regulatory requirements. See **Summary of MARPOL, Annex VI, Regulation 12 Requirements (vessels only)** for MARPOL regulations regarding ozone depleting substances. All requirements in this manual flagged as “MARPOL” are outside of, and independent from, EPA regulations and the requirements of the Consent Decree.
- **Glossary:** The *Glossary* provides definitions for many of the terms used in this manual and on the forms. In a number of cases, words that may have broader meanings in the “every day” sense often have narrower meanings as defined by EPA for regulatory purposes.

The following **key terms** from the *Glossary* are noted here to provide clarity to users of this manual:

1. **Appliances** means any device which contains and uses a Class I or Class II substance or substitute as a refrigerant, including any air conditioner, refrigerator, stand-alone chiller or freezer, or industrial refrigeration system. For an appliance with multiple circuits, each independent circuit is considered a separate appliance. **The terms *system* and *appliance* are used interchangeably in this manual.**
2. **Small Appliance** means any appliance that is fully manufactured, charged, and hermetically sealed in a factory with five (5) pounds or less of refrigerant, including, but not limited to, refrigerators and freezers (designed for home, commercial, or consumer use), medical or industrial research refrigeration equipment, room air conditioners (including window air

conditioners and packaged terminal air heat pumps), dehumidifiers, under-the-counter ice makers, vending machines, and drinking water coolers.

3. **Medium Appliance** (defined in the Consent Decree) means any appliance that “normally contains” (as defined in in 40 CFR 82.152) between 5 and 50 pounds of covered refrigerant.
4. **Large Appliance** (defined in the Consent Decree) means any industrial process refrigeration or commercial refrigeration equipment, as defined in 40 CFR 82.152 that “normally contains” (as defined in in 40 CFR 82.152) more than 50 pounds of covered refrigerant.

Contact Information

Industrial Refrigeration Compliance Manager (IRCM):	Michael Clutter	(206) 297-4609
Regulatory Affairs Director:	Shawn Stokes	(206) 297-6646
Refrigeration Projects Manager:	Mike Reha	(206) 297-6410

Document Control

A copy of the Consent Decree and the RCP will be maintained on the Trident Refrigerant SharePoint site by the IRCM. All officers, employees, agents, contractors and auditors whose duties might reasonably include compliance with any provision of the Consent Decree will be given a copy of the Consent Decree, or access to the Refrigerant SharePoint site. Employees with responsibilities under the RCP will be given access to the Refrigerant SharePoint site, or will be provided access to a controlled copy of the RCP; each controlled copy will be updated when revisions are made.

Background

Ozone Depleting Substances and their Substitutes

Chlorofluorocarbons (CFCs) are gas or liquid compounds that contain atoms of chlorine, fluorine, and carbon. CFCs are used as refrigerants, solvents, foam blowing agents, and in other smaller applications. For over 50 years, CFCs were thought of as miracle substances: they are stable, nonflammable, low in toxicity, and inexpensive to produce.

Hydrochlorofluorocarbons (HCFCs) are a subset of CFCs; they are used primarily as refrigerants.

Beginning in the 1970s, researchers found that the chlorine in CFCs has a powerfully damaging effect on the earth's ozone layer. When CFCs reach the stratosphere, strong UV radiation can break down CFCs and release atoms of chlorine. Since one chlorine atom is capable of destroying over 100,000 ozone molecules, the net effect is that the ozone in the ozone layer is destroyed faster than it is naturally created. Because of the damage they inflict on the ozone layer, CFC compounds (and others like them) are called ozone depleting substances (ODS).

The initial concern generated about the ozone layer in the 1970s led to a ban on the use of CFCs in aerosol propellants in several countries, including the U.S.; however, production of CFCs and other ozone depleting substances continued rapidly as new uses for CFCs were discovered. Subsequent measurements of the ozone layer showed worse than expected additional damage, and concern about the ozone layer eventually led the United States and other countries to enter into international agreements designed to phase out use of ODSs.

The most recent of these agreements is the Montreal Protocol on Substances that Deplete the Ozone Layer, signed in 1987. The parties to the Montreal Protocol agreed to completely end production of CFCs and halons by the beginning of 1996 in developed countries, and to continue to phase out HCFCs and other ODSs. The Montreal Protocol was an outstanding global, collaborative effort; it is considered one of the most successful and effective environmental treaties ever negotiated, and its important role in improving global health cannot be overlooked.

In response to the requirements of the Montreal Protocol, EPA divided ODSs and their substitutes into classes:

- **Class I Substances** are those substances that exceed a certain threshold with regard to ozone-depletion potential, including CFCs and halons.
- **Class II Substances** are those substances that are below the Class I substance threshold for ozone depleting potential. Currently, all HCFCs are class II substances. Many Class II substances have been used as transitional substitutes for CFCs as the United States moves toward eliminating the use of ODSs.
- **Substitutes** are refrigerants that replace Class I and Class II substances; this includes HFCs.

Phase-Out of HCFC Production and Importation

Although HCFCs have been used as transitional substitutes for CFCs as the United States moves toward eliminating use of ODS, the United States is phasing out HCFC use by first limiting and then prohibiting the production or importation of HCFCs. The table below shows the phase-out schedule. In the

meantime, the Clean Air Act and the United States Environmental Protection Agency's (EPA) regulations place many controls on the manufacture, purchase, use, and disposal of HCFCs and HFCs.

Table 1. Phaseout schedule of HCFC production and importation.

PHASEOUT OF HCFC PRODUCTION AND IMPORTATION	
Year to be Implemented	Implementation of HCFC Phase-out through Clean Air Act Regulations
2010	No production and no importing of R-22, except for use in equipment manufactured before 1/1/2010
2015	No production and no importing of any HCFCs, except for use as refrigerants in equipment manufactured before 1/1/2020
2020	No production and no importing of R-22
2030	No production and no importing of any HCFCs

The Clean Air Act in Relation to Ozone Depleting Substances

To implement the Montreal Protocol and protect the ozone layer from further destruction, the United States enacted Title VI of the Clean Air Act in 1990, entitled *Stratospheric Ozone Protection*. Section 608 of Title VI covers requirements for recycling and emission reduction of ozone depleting substances and their substitutes.

CFCs, HCFCs, and HFCs

“Freon®,” a name commonly associated with coolants and refrigerants, is a registered trademark owned by E. I. DuPont de Nemours and Company. The name “Freon®” is commonly used for products containing CFCs, HCFCs, HFCs, and related compounds. In this manual, the word “Refrigerant” is used for these types of refrigerants and includes refrigerants by various manufacturers including DuPont.

The chemical names of the various coolants and refrigerants are identified by a numbering system, using varying prefixes such as R- (for Refrigerant), or CFC-, HCFC-, and HFC-, and the refrigerant number. The table below illustrates the different numbers assigned to some chemical names of different refrigerants, and other important information regarding refrigerants:

Table 2. Information on CFCs, HCFCs, and HFCs.

Refrigerant	CFC, HCFC, HFC	Class No.	Certification Type Required* ≤5 lbs./>5 lbs.	Ozone Depleting Potential (ODP)	Global Warming Potential (GWP)	Phase Out Date
R-12	CFC	I	Type I/Type II	1.000	10890	1996
R-22	HCFC	II	Type I/Type II	0.055	1600	2020
R-134a	HFC	NA	Type I/Type II	0	1430	NA
R-401A	HCFC	II	Type I/Type II	0.037	1182	2030
R-404A	HFC	NA	Type I/Type II	0	3920	NA
R-408A	HCFC	II	Type I/Type II	0.026	55	2030
R-409A	HCFC	II	Type I/Type II	0.05	1485	2030
R-410A	HFC	NA	Type I/Type II	0	2090	NA
R-448A	HFC	NA	Type I/Type II	0	1273	NA
R-507A	HFC	NA	Type I/Type II	0	3990	NA

*A technician with a Universal certification is certified to perform all activities approved for Type I, II, and III technicians. Universal certification does not include motor vehicles.

See the *Glossary* terms for definitions of ozone depleting potential and global warming potential.

MARPOL (vessels only)

The United States is also a signatory to MARPOL, the International Convention for the Prevention of Pollution from Ships ("MARPOL" is short for marine pollution). MARPOL's stated objective is to preserve the marine environment through the complete elimination of pollution by oil and other harmful substances and the minimization of accidental discharge of such substances. MARPOL Annex VI outlines regulations for prevention of air pollution from ships. Regulation 12 of Annex VI contains controls for ozone depleting substances, which include CFCs, HCFCs, and halons.

All ships flagged under countries that are signatories to MARPOL are subject to its requirements, regardless of where they sail and member nations are responsible for vessels registered under their respective nationalities.

Regulatory Requirements and Consent Decree Overview

Summary of 40 CFR, Part 82, Subpart F Requirements

- Requires practices that minimize loss and maximize recycling of refrigerants (CFCs and HCFCs and non-exempt substitutes) during the servicing and disposal of air-conditioning and refrigeration equipment.
- Restricts the sale of refrigerant so that it is only sold to certified technicians and appliance manufacturers.
- Sets certification requirements for technicians who service equipment.
- Sets performance standards for refrigerant recovery and recycling equipment.
- Establishes safe disposal requirements to ensure removal of refrigerants from goods that may enter the waste stream with the refrigerant charge intact.
- Requires repair of leaks in refrigeration equipment with a charge 50 or more pounds of refrigerant that exceed a certain annualized rate to be repaired within specific timelines.
- Requires persons owning or operating equipment with a charge of 50 or more pounds of refrigerant to maintain servicing records and records of refrigerant additions, as well as other records.
- Prohibits deliberate venting or release of CFC or HCFC refrigerants or substitutes to the atmosphere.
- Specifies reporting and recordkeeping requirements for refrigerant systems and related equipment.

40 CFR Part 82, Subpart F was amended significantly, effective January 1, 2017. Not all requirements take effect immediately. The following provides a timetable of compliance dates for the major updates to the regulation:

Table 3. Compliance dates for regulatory updates.

Rule or Topic	Compliance Date
HFCs – sale restrictions on used refrigerant, appliances, recovery/recycling equipment	1/1/2017
HFCs – sale restrictions on new refrigerant	1/1/2018
Disposal requirements for small appliances, including recordkeeping requirements	1/1/2018
Leak rate adjustments	1/1/2019
Leak repair requirements <ul style="list-style-type: none"> • Inclusion of HFCs • Leaks required to be repaired • Recordkeeping and reporting requirements • Initial and follow-up verification test timelines • Extensions available for repairs 	1/1/2019
Leak inspection requirements	1/1/2019
Chronic leaker provision	1/1/2019
Seasonal variance provision	1/1/2019
Retrofit and retirement recordkeeping, extensions, “off-ramping”	1/1/2019

Summary of MARPOL, Annex VI, Regulation 12 Requirements (vessels only)

- **Does not apply to permanently sealed equipment where there are no refrigerant charging connections or potentially removable components** containing ozone depleting substances (typically small domestic appliances such as refrigerators, air conditioners, or water coolers).
- Prohibits deliberate and non-deliberate discharge of CFC or HCFC refrigerants to the atmosphere other than minimal releases associated with the recapture or recycling of an ozone depleting substance.
- Prohibits installation of any CFC or halon containing system or equipment on any ships as of May 19, 2005.
- Prohibits installation of any HCFC containing system or equipment on any ships as of January 1, 2020.
- Requires that controlled practices be used to collect, re-use, or dispose of ozone depleting substances; and to service or decommission systems and equipment.
- Requires that ships track all releases and record whether the releases were deliberate or non-deliberate. All releases are assumed to be non-deliberate in this plan and the corresponding forms workbook, as deliberate venting is prohibited.
- Requires that IAPP-certified ships¹ maintain a list of equipment containing ozone depleting substances.
- Requires that IAPP-certified ships maintain records on ozone depleting supply, recharging, repair, discharge, and disposal.

Summary of Consent Decree Requirements

The Consent Decree requires:

- Compliance with all applicable requirements of Section 608 and 40 CFR Part 82, Subpart F.
- Trident to retrofit Large Appliances according to the schedule outlined in the Consent Decree.
- The development, implementation, and annual review of a Refrigerant Compliance Plan (RCP).
- The completion of comprehensive leak inspections, which include system pump outs and pressure tests.
- The completion of routine leak inspections and the installation of fixed leak detectors and fluorescent dye in Large Appliances.
- Trident to repair all identified leaks that are visible and accessible regardless of how those leaks are discovered or of the calculated leak rate.
- Annual training.
- The use and maintenance of an Electronic Records Portal and Plate Freezer Leak Database.
- Trident to hire a Third Party Auditor to conduct audits and ensure compliance with the Consent Decree and all applicable regulation.
- The calculation of an Annual Refrigerant Loss Rate across all Large Appliances.
- Trident to complete an Annual Report and submit the report to EPA (see CD for detailed requirements).

Refrigerant Policies & Responsibilities

Trident Seafoods Refrigerant Policy

It is the policy of Trident Seafoods to comply with EPA refrigerant regulations in 40 CFR 82, MARPOL regulations, and the Consent Decree. This plan is written to facilitate compliance with these regulations and agreements; in addition, it may contain Trident policies that are beyond the scope of current regulations and agreements.

Trident Seafoods, with headquarters in Seattle, Washington, owns and operates processing facilities as well as processing, fishing, tendering, and support vessels. These policies apply to all Trident Seafoods' facilities and vessels.

As part of the above policy, the following directives will be observed:

- Only certified technicians (certified through an EPA-approved certification course) will maintain, service, repair, or dispose of refrigeration systems and appliances, and will do so in accordance with EPA regulatory requirements (See **Certified Technicians**).
- Only EPA-approved certified technicians will purchase covered refrigerants (See **Certified Technicians**).
- There will be no deliberate venting or release of refrigerants into the atmosphere unless covered by an EPA-approved exception (See **Venting and Releases**).
- Refrigerants will be recovered, reclaimed, recycled, and transferred only by certified technicians using certified recycling and recovery equipment, in accordance with federally required procedures (See **Refrigerant Recovery** and **Used Refrigerant (Recovered, Reclaimed, Recycled)** and **Recovery and Recycling Equipment**).
- Refrigerant systems will be disposed of, transferred, or sold in accordance with EPA regulations (See **Purchasing, Selling, Distribution**).
- Leak repairs, leak repair extensions, retrofitting, retiring, shutdowns, and/or mothballing of Large Appliances will be implemented in accordance with EPA regulatory requirements (See **Large Appliances (Appliances & Systems with Full Charges of 50 or More Pounds)** and **Corporate Responsibilities**).
- All records required or otherwise kept as part of the refrigerant tracking and management program will be maintained for a minimum of 5 years after the Consent Decree is terminated (See **Recordkeeping System** and **Retention of Logs and Records (per Consent Decree)**).

Management Responsibilities

Responsible Supervisor	Role	Specific Tasks
Regulatory Affairs Director	Responsible for program support and oversight.	<ol style="list-style-type: none"> 1. Ensure that compliance with the Refrigerant Compliance Plan (RCP) and Consent Decree is a company policy and appropriate procedures are implemented to ensure compliance. 2. Ensure refrigerant purchasing records are maintained and retained. 3. Ensure that program records are retained as required by the Consent Decree. 4. Ensure top management is aware of the compliance status regarding the refrigerant compliance program, consent decree and applicable regulations.
Industrial Refrigeration Compliance Manager (IRCM)	Responsible for program support and oversight, and administrative control of the RCP. Has the authority to enact changes necessary for compliance.	<ol style="list-style-type: none"> 1. Ensure that compliance with the Refrigerant Compliance Plan (RCP) and Consent Decree is a company policy and appropriate procedures are implemented to ensure compliance. 2. Assume or delegate program responsibility. 3. Conduct research as needed to answer questions from facilities and vessels. 4. Conduct checks as often as necessary to ensure that appropriate documentation is being maintained at each facility and on each vessel. 5. Communicate with contractors and ensure contractor program awareness and that all relevant information provided by contractors is entered into appropriate forms. 6. Annually ensure proper measurement of the full charge of each system, as required by the Consent Decree. 7. Annually calculate the percentage lost during the past year as required by the Annual Refrigerant Loss Cap Program in the Consent Decree. 8. Annually submit the required documents and calculations to EPA, as required by the Consent Decree. 9. If necessary, report violations of the Consent Decree to EPA as required by the Consent Decree. 10. Ensure that proper documentation is completed and reporting to EPA is performed as required where leak rate triggers necessitate leak repair extensions, retrofitting, retiring, shutdowns, and/or mothballing. 11. Review the Refrigerant Compliance Plan (RCP) at least annually and update as needed, including if regulations are amended or legal requirements change. Submit proposed changes to EPA before implementing, as required by the Consent Decree. 12. Initiate or approve and distribute SOP revisions as needed.

		<ol style="list-style-type: none"> 13. Be familiar with and understand the current regulations pertaining to the handling, control, and proper disposal of ozone depleting substances. 14. Monitor compliance and communicate deficiencies to management in writing. 15. Ensure that facilities and vessels maintain updated forms and records per RCP specifications. 16. Ensure that facilities and vessels maintain updated system inventories. 17. Ensure Port Engineers, Facility and Vessel Managers, Chief Engineers, technicians, and contractors are trained as required by the RCP. 18. Facilitate third-party audits as needed. 19. Implement future policy changes as needed. 20. Ensure shore side facility system pressure tests are scheduled according to Consent Decree and RCP requirements. 21. Ensure video inspections are conducted as required.
Refrigeration Projects Manager	Responsible for ensuring pressure tests onboard vessels are scheduled and conducted properly.	<ol style="list-style-type: none"> 1. Ensure pressure tests on vessels are scheduled and conducted per Consent Decree and RCP requirements.
Port Engineers	Responsible for program support and oversight onboard company vessels.	<ol style="list-style-type: none"> 1. Ensure that compliance with the Refrigerant Compliance Plan (RCP) and Consent Decree is a company policy and appropriate procedures are implemented to ensure compliance. 2. Maintain written SOPs (Standard Operating Procedures); update as needed to reflect current practice and submit to the IRCM for approval and distribution. 3. Ensure only certified technicians are allowed to open Trident Seafoods' systems and appliances for repairs/service. 4. Communicate with contractors to ensure they understand and comply with company policies as described in this plan. 5. Identify and procure necessary equipment and services required to comply with regulations. 6. Oversee the transportation and disposal of refrigerant, used refrigerant, used oil, and parts. 7. Identify risks associated with refrigerant use and communicate these risks to management. 8. Ensure disciplinary procedures are in place for failures to comply. 9. Communicate compliance deficiencies to Regulatory Affairs Director. 10. Budget appropriately for compliance requirements.

<p>Facility/Vessel Area Manager</p>	<p>Responsible for support and oversight of program implementation at the facility/onboard the vessel.</p>	<ol style="list-style-type: none"> 1. Ensure that compliance with the Refrigerant Compliance Plan (RCP) and Consent Decree is a company policy and appropriate procedures are implemented to ensure compliance. 2. Ensure that facility/vessel program documentation is accurate, complete, and maintained according to program requirements. 3. Ensure only certified technicians are allowed to open Trident Seafoods' systems and appliances for repairs and service. 4. Ensure facility/vessel employees receive the training required by this plan, and that the training is documented. 5. Ensure disciplinary procedures are in place for failures to comply. 6. Budget appropriately for compliance requirements.
<p>Facility Manager/Vessel Captain</p>	<p>Responsible for program implementation, execution, and recordkeeping. Supervises all technicians and contractors.</p>	<ol style="list-style-type: none"> 1. Ensure that compliance with the Refrigerant Compliance Plan (RCP) and Consent Decree is a company policy and appropriate procedures are implemented to ensure compliance. 2. Implement the RCP onboard the vessel/at the facility. 3. Maintain the vessel refrigerant system inventory as up-to-date. 4. Ensure timely initial and follow-up verification tests for all leak repairs. 5. Ensure required records for all refrigerant-related activities are completed and maintained per program requirements. 7. Ensure that records completed by employees and technicians onboard the vessel are accurate, complete, and maintained per program requirements. 8. Ensure that facility/vessel program documentation is accurate, complete, and maintained according to program requirements. 9. Manage and file vessel logs and records as required by the program. 10. Ensure training is conducted for vessel employees per program requirements. 11. Ensure certification of all technicians before they are allowed to open systems for repairs/service. 12. Communicate with contractors to ensure they understand and comply with company policies as described in this plan. 13. Identify when it is necessary to order or add more refrigerant by communicating with the refrigerant technician(s). 14. Oversee the transportation and disposal of refrigerant, used refrigerant, used oil, and parts. 15. Identify risks associated with refrigerant use and communicate these risks to management. 16. Ensure disciplinary procedures are in place for failures to comply.

<p>Chief Engineer/ Maintenance Manager</p>	<p>Responsible for program implementation, execution, and recordkeeping. Supervises all technicians and contractors.</p>	<p>17. Monitor compliance and communicate deficiencies to Regulatory Affairs Director.</p> <ol style="list-style-type: none"> 1. Ensure that compliance with the Refrigerant Compliance Plan (RCP) and Consent Decree is a company policy and appropriate procedures are implemented to ensure compliance. 2. Implement the RCP at the facility/onboard the vessel. 3. Maintain the facility/vessel refrigerant system inventory as up-to-date. 4. Complete and maintain required logs and records for all refrigerant-related activities per program requirements. 5. Ensure that records completed by the refrigerant technicians and other trained employees at the facility/onboard the vessel are accurate, complete, and maintained per program requirements. 6. Manage and file facility/vessel logs and records as required by the program. 7. Ensure training is conducted for facility/vessel employees per program requirements. 8. Coordinate on-going training of employees in refrigerant recovery, recycling, appliance and equipment repair and regulatory or policy changes. Ensure all technicians and maintenance employees are trained in program requirements and in their job tasks. 9. Ensure certification of all technicians before they are allowed to open systems and appliances for repairs/service. 10. Identify and procure necessary equipment and services required to comply with program. 11. Communicate with contractors to ensure they understand and comply with company policies as described in this plan. 12. Identify when it is necessary to order or add more refrigerant by communicating with the refrigerant technician(s). 13. Oversee the transportation and disposal of refrigerant, used refrigerant, used oil, and parts. 14. Identify risks associated with refrigerant use and communicate these risks to management. 15. Ensure disciplinary procedures are in place for failures to comply. 16. Monitor compliance and communicate deficiencies to management. 17. Ensure pressure tests are conducted per Consent Decree and RCP requirements.
<p>Technician</p>	<p>Follow the program, complete records legibly, accurately and completely as directed.</p>	<ol style="list-style-type: none"> 1. Ensure recovery units meet EPA evacuation requirements and that units are properly tested and maintained per OEM requirements.

		<ol style="list-style-type: none"> 2. Inspect certified refrigerant recovery or recycling equipment before each use to verify that it is functioning properly and repair or replace any equipment that is not functioning correctly before servicing any appliances. 3. Conduct service only in accordance with level of certification. 4. Ensure refrigerants are not vented during servicing. 5. Follow Trident Seafoods refrigerant SOPs. 6. Maintain, leak test, and repair Large Appliances. 7. Conduct (and document) initial and follow-up verification tests when repairing leaks. 8. Pressure test and vacuum test all systems and appliances to required levels. 9. Follow procedures to eliminate refrigerant contamination and mixing. 10. Communicate with the Maintenance Manager/Chief Engineer regarding when it is necessary to order or add more refrigerant based on system operations. 11. Complete proper documentation whenever repairing leaks or performing maintenance. 12. Document all regular leak checks. 13. Complete required records legibly, accurately, and completely.
<p>Other Trained Person/Qualified Person</p>	<p>Complete leak checks and associated documentation per program requirements</p>	<ol style="list-style-type: none"> 1. Perform leak inspection on large system when fixed leak detection system indicates a possible leak. 2. Document all regular leak checks. 3. Complete required records legibly, accurately, and completely.

Procedures

Covered Systems and Appliances

Trident Seafoods owns and operates fishing, tendering, processing, and support vessels and fish processing facilities throughout Washington State and Alaska. Additionally, Trident Seafoods owns and operates fish processing facilities in Minnesota and Georgia. Trident Seafoods uses refrigerants for chilling, freezing, and holding/storage of fish and fish products, and refrigerant is used in plate freezers, spiral freezers, blast freezers, ice makers, RSW chillers and other types of evaporators.

A separate, annual forms workbook will be maintained for each facility/vessel system. The Consent Decree's definitions of "facility" and "vessel" are included in the *Glossary*, and may be referenced to ensure all facilities and vessels covered in the Consent Decree follow the required regulation.

Electronic Records Portal (per Consent Decree)

Trident Seafoods uses an Electronic Records Portal, or Refrigerant SharePoint site to share and store documents related to 40 CFR Part 82, this RCP, and the Consent Decree. The SharePoint site will allow for the electronic availability of all applicable records.

Records will be uploaded to the SharePoint site according to the following schedule:

- a) Large Appliances with a **full charge of 5,000 or more pounds of covered refrigerant**: Records will be uploaded **no less than once per week**.
- b) Large Appliances with a **full charge of between 50 and 5,000 pounds of Class I or Class II refrigerant**: Records will be uploaded as soon as practicable, but **no less than once per month**.

Recordkeeping System

Compliance obligations are documented by each facility and large vessel largely by using an annual Excel Forms Workbook and maintaining copies of supporting records on the SharePoint site. Small vessel documentation is maintained in a binder onboard the vessel, with copies of completed records uploaded to, and maintained on SharePoint. A Small Vessel Excel Forms Workbook will also be maintained for each small vessel on SharePoint, however, the workbook for each small vessel will be maintained by the IRCM, or if the vessel has a certified technician onboard, this may be delegated to the onboard certified technician (see the *Forms and Records for Small Vessels* section below). All records will be uploaded to SharePoint in accordance with the *Electronic Records Portal* section of this manual.

The following is a list of forms used and supporting documentation required.

Note that for the purposes of this recordkeeping system, **Logs** are maintained electronically, while **Records** are printed or copied, filled in by hand, and scanned for electronic storage. Both logs and records must be maintained on the Electronic Records Portal. Scanned copies of documents are considered originals. Original records must be kept for 5 years.

If records are corrected, the original entry shall be marked out with a single line, and the revised entry noted, dated and initialed. For corrections to log (electronic form) entries, the following information must be noted in the log (electronic form), or on a correction log:

- The original entry,
- The corrected entry,

- The reason for the correction,
- The date of the correction.

Forms and Records for Large Vessels/Facilities

- **Form A – Certified Technician Log:** Certification data is entered, cards are scanned and maintained on SharePoint.
- **Form B – Certified Contractor Technician Log:** Certification data is entered, cards of each contractor employee are scanned and maintained on SharePoint.
- **Form C – Recovery Devices Log:** Data on the recycling/recovery units at the facility/on the vessel are entered.
- **Form D – Appliance Disposal Record:** Any disposal of an appliance is documented on this form. This form will be printed out, filled out by hand, and scanned as a PDF. Completed forms in PDF will be maintained on SharePoint.
- **Form E – Refrigerant Systems Log (>5 lbs.):** Required information on appliance(s) at the facility/on the vessel is entered.
- **Form F – Tracking Log:** Entries are required each time refrigerant is added to or removed from a system. There are two (2) versions of Form F: one for systems with a charge of 50 or more pounds, and one for systems with a charge of between 5 and 50 pounds. Use the applicable Form F provided in the forms workbook. Each system has a separate Form F. A leak rate is calculated on the second page for Large Appliances. Whenever the full charge of a Large Appliance changes, a new Form F must be started.
- **Form G – Inventory Tracking Log:** Entries are required for vessels whenever refrigerant is added to or removed from inventory (per MARPOL and Trident policy).
- **Form H – Maintenance Log:** All maintenance, repairs, and leaks are entered into this log. Each Large Appliance has a separate Form H.
- **Form I – Leak Repair Record:** Repairs to the system and leak verification tests are documented on this form. This form will be printed out, filled out by hand, and scanned as a PDF. Completed forms in PDF are maintained on SharePoint.
- **Form J – System Leak Inspection Record:** Leak inspections on the system are documented on this form. This form will be printed out, filled out by hand, and scanned as a PDF. Completed forms in PDF are maintained on SharePoint.
- **Form K – Plate Freezer Leak Inspection Record:** Leak inspections on plate freezers are documented. Information is entered for each plate freezer leak. This form will be printed out, filled out by hand, and scanned as a PDF. Completed forms in PDF are maintained on SharePoint.
- **Form L – System Pressure Test Record:** The results of system pressure tests are recorded. The leaks found by the pressure test and repairs to those leaks are documented. This form will be printed out, filled out by hand, and scanned as a PDF. Completed forms in PDF are maintained on SharePoint.
- **Form M1 –** Reserved for small vessels only.
- **Form M2 –** Reserved for small vessels only.
- **Form N – Fixed Leak Detector Calibration Log:** Maintenance and calibrations of all fixed leak detection systems are documented.
- **Form O – Leak Detector Alarm Log:** Leaks that are detected by fixed leak detectors are documented.

Forms and Records for Small Vessels

The following forms will be assembled into a binder for each of the small vessels. Completed forms will be printed, filled out by hand, and scanned as a PDF. Completed forms will be emailed to

envcompliance@tridentseafoods.com, reviewed for completeness by the **IRCM**, and maintained on SharePoint.

- **Form D – Appliance Disposal Record:** Any disposal of a system is documented on this form.
- **Form J – System Leak Inspection Record:** Leak inspections on the system are documented on this form.
- **Form L – System Pressure Test Record:** The results of system pressure tests are recorded. The leaks found by the pressure test and repairs to those leaks are documented.
- **Form M1 – Leak Repair/Service Record:** All charging, evacuation, maintenance, testing, inspections, servicing, repairs, and initial and follow-up verification tests to refrigeration systems are recorded on this form. This form is for internal and contractor use.
- **Form M2 – Leak Repair/Service Record for Multiple Leaks:** This form is used in place of page 2 of form M1 when multiple leaks are discovered. This form is for internal and contractor use.

A copy of **Form E – Refrigerant Systems Log (>5 lbs.)** will be inserted into the cover of each vessel's binder.

The following forms related to each small vessel's systems will be maintained by the **IRCM** on SharePoint:

- **Form E – Refrigerant Systems Log (>5 lbs.):** Required information on system(s) on the vessel is entered.
- **Form F – Tracking Log:** Entries are required each time refrigerant is added to or removed from a system. There are two (2) versions of Form F: one for systems with a charge of 50 or more pounds, and one for systems with a charge of less than 50 pounds. Use the applicable Form F provided in the forms workbook. Each system has a separate Form F. A leak rate is calculated on the second page for systems with a charge of 50 or more pounds when necessary. Whenever the full charge of a system changes, a new Form F must be started.

Forms, Logs and Records Management

Forms workbooks must be maintained on 12 month basis, based on calendar year. Each year the workbook will be saved by calendar year and a new one started. New workbooks will be provided to each facility/vessel at the start of each calendar year by the **IRCM**. Year-end information will be transferred to the new workbook each year.

Large Vessels/Facilities

Forms workbooks will be maintained by the **Chief Engineer/Maintenance Manager**. Vessels and facilities with sufficient internet speed will maintain the records on, and upload all supporting documents to, the Trident Refrigerant SharePoint site directly. Vessels and facilities with insufficient internet speed will maintain the forms workbook on a local computer or server, and email a current copy of the workbook to envcompliance@tridentseafoods.com each time the system is charged with refrigerant. These facilities will email each supporting record upon the completion of each record.

Small Vessels

The **Captain** of each small vessel will maintain original records in a binder onboard the vessel. As each record is completed, the **Captain** will ensure that each form is scanned and emailed to envcompliance@tridentseafoods.com. Excel forms for each small vessel will be maintained by the **IRCM**

on the Trident Refrigerant SharePoint site, populated with data from forms emailed from the vessel. Scanned forms will be uploaded to the Trident Refrigerant SharePoint site after receipt.

The **ICRM** must ensure all electronically completed workbooks are retained for at least five (5) years after the Consent Decree has been terminated. The **ICRM** will also ensure that all electronic documents are saved onto an alternative storage device subject to regular backups and maintained for at least five (5) years after the Consent Decree has been terminated.

Retention of Logs and Records (per Consent Decree)

All logs and records must be maintained in their original form. Trident may create separate, supplemental records, but original records will not be erased, changed, or replaced, and supplemental records will accurately reflect the date and circumstance under which they were created.

The **ICRM** must ensure that all Logs and Records must be retained for at least 5 years after the Consent Decree is terminated.

At least 90 days before the documents are to be destroyed after the Consent Decree has been terminated (after at least three years), the **ICRM** must notify EPA and deliver documents to EPA if requested.

Standard Operating Procedures

The following Standard Operating Procedures (SOPs) are attached to this manual as Appendix A. These procedures should be used whenever completing an applicable task.

1. SOP-01 Leak Inspection Parameters
2. SOP-02 Leak Repair Documentation Process
3. SOP-03 Refrigerant Recovery
4. SOP-04 Leak Detection Methods
5. SOP-05 System Leak Inspections
6. SOP-06 Plate Freezer Leak Inspections
7. SOP-07 System Pressure/Vacuum Test
8. SOP-08 System Pressure Test Using Refrigerant
9. SOP-09 System Integrity Inspection
10. SOP-10 Awareness to Reduce System Leaks/Damage
11. SOP-11 Maintaining System Dye
12. SOP-12 Automatic Leak Detector Settings and Configuration

Refrigerant Tracking in Systems and Appliances

The requirements for tracking refrigerant in systems and appliances vary based upon the size of the system. See the applicable section: *Small Appliances (Appliances & Systems with Charges at or under 5 Pounds, Medium Appliances (Appliances & Systems with Charges between 5 and 50 Pounds), and/or Large Appliances (Appliances & Systems with Full Charges of 50 or More Pounds)* for a description of applicable requirements.

Refrigerant Tracking in Inventory

A log must be maintained to track covered refrigerants, beginning from the time they are supplied to the facility/vessel. Inventory tracking is a requirement of MARPOL for certain vessels. However it is Trident's policy that all refrigerant in inventory will be tracked onboard vessels and at facilities.

Large Vessels/Facilities

Track covered refrigerant inventory on **Form G – Inventory Tracking Log**.

Small Vessels

Small vessels shall not maintain ANY refrigerant onboard in inventory; only refrigerant contained in appliances will be maintained on small vessels. If a small vessel requests to maintain inventory onboard, that vessel must employ a certified technician as a normal member of the crew, and must maintain records in the manner specified under Large Vessels. Additionally, this will only be permitted if explicitly authorized by the IRCM.

Certified Technicians

Large Vessels/Facilities

Use **Form A – Certified Technician Log** to keep records of certified technicians employed by the company. A copy of the certification must be kept at the facility/on the vessel.

Small Vessels

The **Captain** will ensure that only certified technicians perform work on systems as required by this section. If a new technician performs work on a system, scan the certified technician's Section 608 certification card and send a copy of the card to the **IRCM**.

The following must be certified by an EPA-approved technician certification program:

1. Technicians who maintain, service, or repair any appliances or systems that could be reasonably expected violate the integrity of the refrigerant circuit and therefore release refrigerants into the environment.
2. Technicians who dispose of appliances or systems, except for Small Appliances (<5 lb. charge) that could be reasonably expected to violate the integrity of the refrigerant circuit and therefore release refrigerants into the environment.

Activities reasonably expected to violate the integrity of the refrigerant include, but are not limited to:

- Attaching or detaching hoses and gauges to and from the appliance;
- Adding or removing refrigerant or components; and
- Cutting refrigerant lines.

The type of certification required depends on the type of refrigerant being used and the characteristics of the appliance or system being serviced. The four types of certification identified by EPA regulations are presented in Table 4. Type I, Type II, Type III, and Universal technicians can buy any refrigerant sold in containers of 20 pounds or more.

For a current list of EPA-approved certification programs, visit the following website:

<http://www.epa.gov/ozone/title6/608/technicians/608certs.html>

Table 4. Technician certification types.

Type of Equipment Serviced	Certification Description	Level of Required Certification
Small Appliances (<5 lbs.), domestic refrigerators, window air conditioners, PTACs (hermetically sealed air conditioners), and vending machines.	Maintenance, service, or repair of Small Appliances.	Type I
High and very high pressure equipment, all R-22 systems.	Maintenance, service, repair, or disposal of medium-, high-, or very high-pressure appliances and systems, except small appliances.	Type II
Low pressure equipment, systems using HCFC-123 or CFC-11 (primarily chillers).	Maintenance, service, repair, or disposal of low-pressure appliances and systems.	Type III
All types.	Certified to perform all activities approved for Type I, II, and III technicians.	Universal*

*Universal does not include motor vehicles.



NOTE: Copies of all certificates of all technicians employed by the company who maintain, service, and/or repair refrigeration equipment must be kept on file.

Contractors

Large Vessels/Facilities

Use **Form B – Certified Contractor Technician Log** to keep records of outside service providers.

Small Vessels

The **Captain** will ensure that only certified contractor technicians perform work on systems as required by this plan. Whenever a new certified contractor technician performs work on a system, scan the technician's Section 608 certification card and send a copy of the card to the **IRCM**.

The contractor shall be responsible and accountable for compliance with the EPA Clean Air Act (CAA) Section 608, 40 CFR Part 82, and any state and local codes for all refrigerant-related work. Contractor shall ensure that all contractor employees are made aware of the content of these practices prior to beginning work on refrigerant containing equipment.

The contractor shall provide only proper level EPA-certified technicians using EPA-certified and registered recovery/recycle units to perform work on refrigerant equipment.

The contractor shall submit the following information prior to starting any work (to the vessel/facility):

- A list of all service technician names and EPA certification numbers and level of certification (copies of EPA Certification Cards are acceptable).

The contractor will provide the following documentation for entry into Company records:

- Equipment Name/Number
- Manufacturer and Model number
- Serial number
- Location of equipment
- Refrigerant type
- Date of service
- Service, repair, or disposal description
- Quantity of refrigerant removed, recovered, recycled, reclaimed, or disposed of
- Quantity of lubricant disposed of, and method of disposal
- Detailed information on any leaks discovered and repaired
- Name(s) of EPA-certified service technicians who performed work
- Recovery/recycling units used on equipment
- Copy of technician certification card(s)

Trident will provide a form to be filled out by the contractor and submitted to the responsible Trident location representative along with any required repair records. Every effort will be made to secure these records before the contractor departs, or failing that, agreement will be reached on a submittal deadline. In either case, the records will be sent attention the IRCM to envcompliance@Tridentseafoods.com

Trident will instruct all contractors to preserve all non-identical copies of documents, records or other information that related in any manner to Trident's performance under the Consent Decree until 5 years after the termination of the Consent Decree.

Adding and Purchasing Refrigerant

The **Maintenance Manager/Chief Engineer/Captain** decides when it is necessary to order/add more refrigerant to a system or appliance based on their individual expertise and on the recommendations of technicians. More refrigerant is needed when minimal operational levels cannot be reliably maintained in system vessels, pumps are at risk of shutting down on low level repeatedly, or when product cannot be cooled or frozen adequately, or in an acceptable timeframe. When refrigerant is needed, it is obtained from Trident inventories, ordered from a refrigerant vendor, or obtained through a refrigeration contractor.

Refrigerant Recovery

Refrigerants will be recovered from systems and appliances in accordance with *SOP-03 Refrigerant Recovery Procedures*.

See the **Refrigerants** chapter of this manual for more information regarding refrigerant reuse and disposal.

Maintenance, Service, and Repairs

The maintenance, service, and repair requirements vary based upon the size of the system. See the applicable section: *Small Appliances (Appliances & Systems with Charges at or under 5 Pounds)*, *Medium Appliances (Appliances & Systems with Charges between 5 and 50 Pounds)*, and/or *Large Appliances (Appliances & Systems with Full Charges of 50 or More Pounds)* for a description of applicable requirements.

Disposal

The disposal requirements for appliances vary based upon the size of the system. See the applicable section: *Small Appliances (Appliances & Systems with Charges at or under 5 Pounds)*, *Medium Appliances (Appliances & Systems with Charges between 5 and 50 Pounds)*, and/or *Large Appliances (Appliances & Systems with Full Charges of 50 or More Pounds)* for a description of applicable requirements.

Refrigerants

Health and Safety Issues

All fluorocarbon refrigerants are heavier than air and release can cause asphyxiation by displacing air in low-lying areas or confined and enclosed spaces. They also pose other safety and health risks. Consult the Safety Data Sheet (SDS) for details.

Purchasing, Selling, Distribution

Only certified Type I, Type II, Type III, or Universal technicians may purchase class I or class II refrigerants or non-exempt substitutes.

Purchasers of refrigerants who employ certified technicians may provide evidence that at least one technician is properly certified to the wholesaler who sells them refrigerant. **The purchaser must notify the wholesaler in the event that the purchaser no longer employs at least one properly certified technician. The wholesaler is then prohibited from selling refrigerants to the purchaser until such time as the purchaser employs at least one properly certified technician. At that time, the purchaser must provide new evidence that at least one technician is properly certified.**

Sellers of refrigerant must document the name of the purchaser, the date of the sale, and the quantity of refrigerant purchased. The seller must keep information provided by the purchaser indicating that the purchaser employs a certified technician. The wholesaler must then keep this information on file and may sell refrigerant to the purchaser or his authorized representative.

Used refrigerants may only be transferred between or among a parent company and one or more of its subsidiaries, or between or among subsidiaries having the same parent company (unless the used refrigerant is contained in an appliance or system).

Only **virgin or reclaimed refrigerant** may be transferred from one owner to a different owner for use as refrigerant. Whenever refrigerant is transferred to another company, an invoice must be generated that contains the following information:

1. Name of person/company receiving refrigerant
2. Date of transaction
3. Quantity of refrigerant transferred
4. Copy of Section 608 technician certification card on file for receiver of refrigerant (refrigerant may not be transferred to anyone without a technician certification card)

Venting and Releases

Deliberate venting or release of CFC, HCFC, or HFC refrigerants to the atmosphere is prohibited. The knowing release of refrigerant after its recovery from an appliance is a violation of the venting prohibition.

"De minimis" (insignificantly small) quantities of refrigerants released in the course of good faith attempts to recycle or recover refrigerants are not subject to the venting prohibition. Refrigerant releases are considered de minimis only if they occur when all EPA regulations are being followed for recycling and emissions reduction.

Used Refrigerant (Recovered, Reclaimed, Recycled)

Used refrigerants are usually recovered or recycled for re-use or recycled for re-sale. All recycling and recovery equipment used for recovering, reclaiming, or recycling refrigerants must be certified. See *SOP-03 Refrigerant Recovery Procedures*.

- **Recovered refrigerant** is refrigerant that is removed in any condition from an appliance or system and stored in an external container without necessarily testing or processing it in any way. *Recovered refrigerant can be put back into the appliance or system, or into another appliance or system owned by the same owner as-is; otherwise it must be reclaimed or recycled.*
- **Recycled refrigerant** is refrigerant that is recovered from an appliance and cleaned for reuse without meeting all of the requirements for reclamation. In general, recycled refrigerant is refrigerant that is cleaned using oil separation and single or multiple passes through devices, such as replaceable core filter-driers, which reduce moisture, acidity, and particulate matter. These procedures are usually implemented at the field job site. *Recycled refrigerant can only be recharged back into the same owner's equipment.*
- **Reclaimed refrigerant** is refrigerant that is reprocessed to meet specific EPA-prescribed standards applicable to the refrigerant. The reclaimed refrigerant can then be re-sold to other users. Reclamation of refrigerants can only be performed by EPA-certified reclaimers. An owner can send *recovered* refrigerant to an EPA-certified reclaimer. Reclamation of refrigerants can only be performed by EPA-certified reclaimers. EPA-certified reclaimers can be found at: <http://www.epa.gov/ozone/title6/608/reclamation/reclist.html>

Recovery and Recycling Equipment

See *SOP-03 Refrigerant Recovery Procedures* for more information regarding proper recovery procedures, equipment, and containers and for troubleshooting tips.

Large Vessels/Facilities

Fill out **Form C – Recovery Devices Log** to document all recovery and recycling equipment used on appliances or systems. Recovery devices must be certified by an approved equipment testing organization. Each location must maintain a separate recovery/recycling device.

Small Vessels

Any recovery and/or recycling will be completed in accordance with *SOP-03 Refrigerant Recovery Procedures* and all applicable regulations.

Storage of Refrigerants

Store refrigerant outdoors whenever possible. Do not store more than 330 pounds of refrigerant in a machinery room outside an appliance or system (see ASHRAE 15 and 26). If refrigerant is stored inside in other than machinery rooms, ensure adequate ventilation is installed and maintained in the space.

Large Vessels/Facilities

Refrigerant cylinders stored for use, and the covered refrigerant in all cylinders, will be tracked on **Form G – Inventory Tracking Log** and identified by cylinder number.

Small Vessels

Small vessels will not maintain ANY refrigerant onboard in inventory unless there is a certified technician on board the vessel; only refrigerant contained in appliances will be maintained on small vessels when there is no certified technician on board the vessel. See the *Refrigerant Tracking in Inventory* section of this manual for additional requirements.

Lubricants

Use

Use only the type of lubricant that is specified by both the system and refrigerant manufacturers. Do not mix lubricants in systems. Mixing of lubricants can cause system problems.

Disposal

Refrigerant oil is considered a hazardous waste if it contains more than 4,000 parts per million (ppm) of dissolved refrigerant and if it is not headed for reclamation. Most refrigerant oil that has been exposed to a refrigeration system or a recovery process contains greater than 5,000 ppm of dissolved refrigerant and acid gas. It is the contracted disposal service's responsibility to determine if used oil does or does not exceed the regulatory limits for toxicity characteristic (TC) constituents. Used oil that fails the TC must be disposed of in accordance with hazardous waste regulations. Because used oil from refrigeration equipment may contain appreciable levels of contaminants, it is important to maintain records that document the source of the oil and its ultimate disposal.



NOTE: Do not mix used refrigerant oils with other types of used oil!

Small Appliances **(Appliances & Systems with** **Charges at or under 5 Pounds)**

Definition of Small Appliance

A Small Appliance is any appliance that is fully manufactured, charged, and hermetically sealed in a factory with five (5) pounds or less of refrigerant, including, but not limited to, refrigerators and freezers (designed for home, commercial, or consumer use), medical or industrial research refrigeration equipment, room air conditioners (including window air conditioners and packaged terminal air heat pumps), dehumidifiers, under-the-counter ice makers, vending machines, and drinking water coolers.

MARPOL Requirements for Equipment Inventory (vessels only)

Vessels must maintain a list of all appliances and systems on vessels that 1) contain any ozone depleting substances, and 2) that are not permanently sealed.

Permanently sealed Small Appliances (meaning the appliance will not be worked on and refrigerant will not be added to or deliberately evacuated from the system) do not need to be included on the inventory list.

All Vessels

If a Small Appliance used on a vessel is NOT permanently sealed and contains an ozone depleting substance, list it on **Form E - Refrigerant Systems Log (>5 lbs.)**.

EPA Requirements for Tracking Refrigerants in Small Appliances

There are no EPA regulatory requirements for tracking refrigerants for Small Appliances.

Maintenance, Service, and Repairs

There are no regulatory requirements for keeping maintenance, service, or repair records or documentation for Small Appliances.

1. Only an appropriately certified technician may open a Small Appliance for maintenance, service, or repair.
2. If a Small Appliance is opened for maintenance, service, or repair, the refrigerant (including liquid refrigerant) must first be evacuated from the appliance. The refrigerant in either the entire unit or the part to be serviced (if it can be isolated) must be evacuated to the remaining portions of the appliance, or a specific vessel within the appliance, or a certified recovery or recycling machine. A technician must verify that the applicable level of evacuation has been reached in the appliance or the part before it is opened.
3. Following are the applicable refrigerant recovery levels from **Small Appliances** for purposes of maintenance, service, or repair:
 - The appliance must be evacuated to four inches of mercury vacuum, **OR**
 - 80% of the refrigerant must be recovered when using recycling and recovery equipment manufactured before November 15, 1993, **OR**

- 90% of the refrigerant must be recovered when using recycling and recovery equipment manufactured on or after November 15, 1993, and when the compressor in the appliance is operating, **OR**
 - 80% of the refrigerant must be recovered when using recycling and recovery equipment manufactured on or after November 15, 1993, and when the compressor in the appliance is not operating.
4. Refrigerant may be returned to the appliance from which it is recovered or to another appliance owned by the same company without being recycled or reclaimed.

Disposal

All Vessels/Facilities

Fill out **Form D – Appliance Disposal Record** whenever you dispose of a Small Appliance.

When disposing of a Small Appliance, companies may:

1. **Recover any remaining refrigerant** from the appliance to the applicable levels outlined in Table 5, using a properly certified recovery and/or recycling device, **OR**

Table 5. Evacuation levels for Small Appliances.

Required Evacuation Levels for Appliances with Charges of 5 Pounds or Less		
All Small Appliances Any <u>ONE</u> of the 3 methods below is acceptable.	Recovery Unit Manufactured Date	
	Before Nov 15, 1993	After Nov. 15, 1993
When compressor is working	80%	90%
When compressor is not working	80%	80%
Mercury vacuum level	4"	4"

2. **Send the appliance to a final processor** (such as a scrap recycler or landfill operator) with all systems intact, even if refrigerant has leaked out. Ensure that none of the unit's systems or circuits are compromised (allowed to open to atmosphere) during the transport of the unit to the final processor.

Medium Appliances (Appliances & Systems with Charges between 5 and 50 Pounds)

Definition of Medium Appliance

A Medium Appliance is any appliance that normally contains between five (5) and 50 pounds of covered refrigerant.

MARPOL Requirements for Equipment Inventory (vessels only)

Vessels must maintain a list of all Medium Appliances and systems that contain any ozone depleting substances.

All Vessels/Facilities

List Medium Appliances on **Form E - Refrigerant Systems Log (>5 lbs.)**.

IAPP-certified ships must document the full or partial recharge of all systems that contain ozone depleting substances, regardless of system size (MARPOL).

EPA Requirements for Tracking Refrigerants in Medium Appliances

There are no EPA regulatory requirements for tracking refrigerants added to Medium Appliances and systems with charges between 5 and 50 pounds; however, it is recommended.

Large Vessels/Facilities

When covered refrigerant is added to, or removed from, a Medium Appliance, the movement will be documented on **Form F – Tracking Log**. A separate **Form F** will be maintained for each Medium Appliance.

Small Vessels

When covered refrigerant is added to, or removed from, a Medium Appliance, the movement will be documented on **Form M1 – Leak Repair/Service Record**.

The IRCM will use **Form M1** to fill out the **Form F – Tracking Log** for each small vessel.

Maintenance, Service, and Repairs

There are no regulatory requirements for keeping maintenance, service, or repair records or documentation for Medium Appliances.

1. Only an appropriately certified technician may open an appliance with a charge over 5 pounds for maintenance, service, or repair.
2. All persons opening a Medium Appliance for **maintenance, service, repair, or disposal** must have at least one piece of recovery and/or recycling equipment available at their business. Persons who maintain, service, repair, or dispose of only appliances that they own and that contain pump-out units are exempt from this requirement.
3. Prior to opening a Medium Appliance for maintenance, service, or repair, the refrigerant (including liquid refrigerant) must first be evacuated from the appliance to the applicable levels using a

properly certified recovery and/or recycling machine (see **Form D – Appliance Disposal Record** for required evacuation levels). Technicians may evacuate either the entire appliance or the part to be serviced, if the refrigerant in the part can be isolated to a system receiver. A technician must verify that the applicable level of evacuation has been reached in the appliance or the part before it is opened.

4. Following are **exceptions** to the evacuation requirement in item 3 above. In these cases, evacuation to the required levels may not be possible:
 - a) Evacuation of the appliance is not required prior to opening if evacuation to the atmosphere is not to be performed **after** completion of the maintenance, service, or repair, **AND** the maintenance, service, or repair does not require the removal of the compressor, condenser, evaporator, or auxiliary heat exchange coil, or the maintenance, service, or repair does not require uncovering an opening of more than four square inches of “flow area” for more than 15 minutes.

In the above case, the appliance must:

- be evacuated to a pressure no higher than 0 psig before it is opened if it is a medium-, high- or very high-pressure appliance.
 - be pressurized to a pressure no higher than 0 psig before it is opened if it is a low-pressure appliance.
 - be pressurized to a pressure no higher than 5 psig **only for oil changes**.
- b) Evacuation of the appliance is not required prior to opening if, because of leaks in the appliance, evacuation to the required levels is not attainable or would substantially contaminate the refrigerant being recovered.

In such cases, the technician must try to isolate the leak from non-leaking components as much as possible, evacuate any non-leaking components to the required levels, and evacuate leaking components to the lowest level that can be attained without substantially contaminating the refrigerant (never below 0 psig).

5. Refrigerant may be returned to the appliance from which it is recovered or to another appliance owned by the same person or company without being recycled or reclaimed.

Disposal

Appliances and systems that are typically dismantled on-site before disposal must have the refrigerant recovered in accordance with EPA's requirements for servicing prior to their disposal.

See *SOP-03 Refrigerant Recovery Procedures* for more information regarding required evacuation practices.

All Vessels/Facilities

Fill out **Form D – Appliance Disposal Record** whenever you dispose of any appliance or system.

Retrofit

If Trident decides to retrofit an existing Medium Appliance or purchase a new Medium Appliance, a replacement refrigerant or an exempt substitute refrigerant must be used.

Large Appliances (Appliances & Systems with Full Charges of 50 or More Pounds)

Definition of Large Appliance

The Consent Decree defines a Large Appliance as any industrial process refrigeration or commercial refrigeration equipment that normally contains more than 50 pounds of covered refrigeration.

Additionally, there are regulatory requirements for comfort cooling appliances with charges of 50 or more pounds of covered refrigerant. All procedures and policies in this manual apply to comfort cooling appliances, except for those labeled as Consent Decree requirements.

MARPOL Requirements for Equipment Inventory (vessels only)

Vessels must maintain a list of all Large Appliances and systems that contain any ozone depleting substances.

All Vessels/Facilities

List Large Appliances on **Form E - Refrigerant Systems Log (>5 lbs.)**.

EPA Requirements for Tracking Refrigerants in Large Appliances

Large Vessels/Facilities

When covered refrigerant is added to, or removed from, a Large Appliance, the movement will be documented on **Form F – Tracking Log**. A separate Form F will be maintained for each Large Appliance.

Small Vessels

When covered refrigerant is added to, or removed from, a Large Appliance, the movement will be documented on **Form M1 – Leak Repair/Service Record**.

The IRCM will use **Form M1** to fill out the **Form F – Tracking Log** for each small vessel.

Full Charge Determination

The full charge of a Large Appliance must be determined and recorded.

Recordkeeping: Large Vessels/Facilities

Record the full charge on **Form E - Refrigerant Systems Log (>5 lbs.)** and **Form F – Tracking Log**.

If the full charge of a Large Appliance changes for any reason during the year, the new full charge must be recorded with a description of how the charge was determined and the date of the revision. Fill out a **new row** in **Form E – Refrigerant Systems Log (>5 lbs.)** with the appliance information, date of charge determination, and new full charge. A new **Form F – Tracking Log** must be started for the appliance with the updated full charge.

Recordkeeping: Small Vessels

Maintain **Form E – Refrigerant Systems Log (>5 lbs.)** in the cover of the vessel's binder. If the full charge of a Large Appliance changes for any reason, contact the IRCM.

Procedures: Large Appliances with a Full Charge greater than 5,000 Pounds of Covered Refrigerant

Set the full charge by using the actual measurement of the amount of covered refrigerant added or evacuated from the Large Appliance, including for seasonal variances (“Method 3”). See Glossary for the definition of seasonal variance.

Procedures: Large Appliances with a Full Charge of Between 50 and 5,000 Pounds of Covered Refrigerant

If possible, set the full charge by using the actual measurement of the amount of covered refrigerant added or evacuated from the Large Appliance, including for seasonal variances (“Method 3”).

This is possible when it is possible to weigh the refrigerant before it is put in the system, or if it is possible to pump out the refrigerant and weigh it and put it back in. When this is not possible due to operations, facility/vessels location, or for other valid reasons, as determined by the IRCM or Port Engineer, use appropriate calculations based on component sizes, density of refrigerant, volume of piping, and other relevant considerations (“Method 2”). If using this method, maintain detailed documentation of the calculations performed.

Comprehensive Leak Tests and Inspections (per Consent Decree)

Recordkeeping: All Vessels/Facilities

Use **Form L – System Pressure Test Record** to document the pressure test, any leaks found during the test, and any leak repairs made.

Procedures: Large Appliances with a Full Charge of 5,000 or More Pounds of Class I or Class II Refrigerant

At least **once each calendar year** beginning January 1, 2019, Trident will complete a pressure/vacuum test and inspection of each system. This test must be at least 6 months apart from previous and subsequent tests. To complete this inspection:

1. Evacuate the system to the levels specified in *SOP-03 Refrigerant Recovery Procedures*.
2. Complete a pressure/vacuum test per *SOP-07 System Pressure/Vacuum Test*.
3. Use *SOP-05 System Leak Inspection Procedures* to complete a leak check and identify any leaks.
4. Repair all leaks in accordance with the *Leak Repair* section of this manual.

Procedures: Large Appliances with a Full Charge of between 50 and 5,000 Pounds of Class I or Class II Refrigerant

At least **once every three calendar years** beginning January 1, 2019, complete a pressure/vacuum test and inspection of the system. To complete this inspection:

1. Evacuate the system to the levels specified in *SOP-03 Refrigerant Recovery Procedures*.
2. Complete a pressure/vacuum test per *SOP-07 System Pressure/Vacuum Test*. Use *SOP-05 System Leak Inspection Procedures* to complete a leak check and identify any leaks.
3. Repair all leaks in accordance with the *Leak Repair* section of this manual.

In each year in which a full vacuum/pressure test is not completed:

1. Complete a system pressure test using *SOP-08 System Pressure Test Using Refrigerant*.
2. Repair all leaks in accordance with the *Leak Repair* section of this manual.

This test must be at least 6 months apart from previous and subsequent tests.

Routine Leak Inspections

Recordkeeping: Large Vessels/Facilities

Maintain records of leak inspections on **Form J – System Leak Inspection Record**. If the facility or vessel uses plate freezers, inspect plate freezers using **Form K – Plate Freezer Leak Inspection Record**.

If using a system pressure test as a part of the leak inspection process, complete **Form L – System Pressure Test Record**.

Recordkeeping: Small Vessels

Maintain records of leak inspections on **Form J – System Leak Inspection Record**. If using a system pressure test as a part of the leak inspection process, complete **Form L – System Pressure Test Record**.

Procedures: Large Appliances with Full Charges of 5,000 or More Pounds of Covered Refrigerant on Vessels

The person in charge of the system (**Chief Engineer or Port Engineer**) shall ensure inspections are conducted on each component of the Large Appliance on a rolling basis at least once every 15 days while the Large Appliance is charged with refrigerant. During an Extended Layup, when refrigerant is isolated in components for storage, those components shall be inspected at least once every 30 days; inspections shall include the isolation valves. Components that are Pumped Out and Isolated or Pumped Down do not need to be inspected. Use *SOP-01 Leak Inspection Parameters*, *SOP-04 Leak Detection Methods & Procedures*, *SOP-05 System Leak Inspections* and/or *SOP-06 Plate Freezer Leak Inspections*, as necessary.

If using a system pressure test as a part of the leak inspection process, use *SOP-07 System Pressure/Vacuum Test* and/or *SOP-08 System Pressure Test Using Refrigerant*, as applicable.

Procedures: Large Appliances with Full Charges of Between 50 and 5,000 Pounds of Class I or Class II Refrigerant at Vessels and Facilities

As soon as possible, but no later than 48 hours **after adding refrigerant**, a qualified person will perform and document a system leak inspection.

As soon as possible, but no later than 48 hours **after a 100 ppm or higher alarm** from the fixed leak detection system, a qualified person will perform and document a leak inspection of components in the area of the fixed leak detector. Note: On a vessel during an Extended Layup, this inspection should occur as soon as possible, but no later than 96 hours after learning of an alarm at 100 ppm or higher.

At least once per year, beginning January 1, 2019, a qualified person will perform a system leak inspection. On vessels, the inspection shall take place prior to performing system Pump Down preparatory to shutting down the system for an Extended Layup. The system Pump Down will be performed as soon as practicable once the extended layup period is scheduled and the leak inspection of the charged system is completed.

Use *SOP-01 Leak Inspection Parameters*, *SOP-04 Leak Detection Methods & Procedures*, *SOP-05 System Leak Inspections* and/or *SOP-06 Plate Freezer Leak Inspections*, as necessary.

Procedures: After 1/1/2019, Large Appliances With Full Charges of Between: 50 and 5,000 Pounds of Covered Refrigerant at Vessels and Facilities

Leak inspections are required per the table below unless the trigger rate of a system is not exceeded for one year. Conduct the leak inspection using *SOP-01 Leak Inspection Parameters*. For additional procedures, use *SOP-04 Leak Detection Methods & Procedures*, *SOP-05 System Leak Inspections* and/or *SOP-06 Plate Freezer Leak Inspections*.

If using a system pressure test as a part of the leak inspection process, use *SOP-07 System Pressure/Vacuum Test* and/or *SOP-08 System Pressure Test Using Refrigerant*, as applicable.

Leak inspection schedules are specified in the table below:

Table 6. Leak inspection requirements for systems with a charge of 50 or more lbs.

Equipment	Full Charge	Frequency of Leak Inspection
Commercial Refrigeration and IPR	≥ 500 pounds	Once every three months until the owner/operator can demonstrate that the leak rate has not exceeded the threshold for four quarters in a row, then once per calendar year allowed unless the leak rate is again exceeded.*
	50 to 500 pounds	Once per calendar year.
Comfort Cooling	≥ 50 pounds	Once per calendar year.

*Note: Once per calendar year is required per the Consent Decree regardless of leak rate.

Maintaining Leak Detection Systems

Automatic leak detection systems must be installed and maintained to meet the following specifications:

1. The system must be calibrated or audited in accordance with OEM recommended schedule or annually, whichever occurs first. Records must be maintained of all calibrations or audits.
2. If a fixed leak detection system detects the presence of refrigerant in air, it must meet the following specifications:
 - The system is located in an enclosed space;
 - The system monitors areas in proximity to compressors, evaporators, condensers, or other areas where there is a high potential for leaks;
 - The system accurately detects 10 parts per million of the refrigerant used in the process; and,
 - The system must alert when the refrigerant reaches a concentration of 100 parts per million.

Where an automatic leak detection system has been installed at a facility or vessel, fill out **Form N – Fixed Leak Detector Calibration Log** to track installation, calibration, and configuration of the system in accordance with *SOP-12 Automatic Leak Detector System Settings and Configuration*. If a fixed leak detector system alarms, record the detector name and location, date of the alarm, date of leak inspection in response to the alarm, whether a the leak was discovered and if so the leak location on **Form O – Leak Detector Alarm Log**.

Plate Freezer Leak Tracking System (per Consent Decree)

Complete **Form K – Plate Freezer Leak Inspection Record** when inspecting plate freezers. Complete **Form L – System Pressure Test Record** in lieu of Form K if the inspection is part of a full system pressure test.

No later than June 30, 2019, Trident will establish a plate freezer database. Trident will collate leak and leak repair information gathered from the Form K – Plate Freezer Leak Inspection Records and the Form L - System Pressure Test Records from the systems with plate freezers.

The database will have the ability to generate reports including potential trending information. This information may be used as part of a Corrective Action Plan.

Video Recordings

Procedures: Large Appliances with Full Charges of 5,000 or More Pounds of Covered Refrigerant at Vessels and Facilities

Beginning January 1, 2019, the **Chief Engineer/Maintenance Manager** will ensure a video recording is made of a qualified person conducting a leak inspection, leak repairs (if applicable), and verification tests (if applicable) and submit it to the **IRCM**. Thereafter, a video will be made annually and submitted it to the **IRCM**.

Procedures: Large Appliances with Full Charges of Between 50 and 5,000 Pounds of Class I or II Refrigerant at Vessels and Facilities

By January 31, 2024, the **IRCM** will ensure that at least one video inspection at each vessel or facility is made, and will ensure more if necessary are made to ensure that video inspections are completed on at least five vessels or facilities each year. For vessels and facilities with more than one large appliance, the video need only cover one such appliance.

Maintenance, Service, and Repairs

The **Technician** will maintain a log of maintenance, service, and repair activities performed on systems that contain refrigerants and that have charges of 50 or more pounds. See the *Leaks and Leak Repair* section when repairing a leak.

Large Vessels/Facilities

Complete **Form H – Maintenance Log**. Each Large Appliance has a separate **Form H**.

Small Vessels

Complete **Form M1 – Leak Repair/Service Record** and/or **Form M2 – Leak Repair/Service Record for Multiple Leaks**, as applicable.

1. Only an appropriately certified technician may open an appliance with a charge over 5 pounds for maintenance, service, or repair.
2. All persons opening an appliance with a charge of 50 or more pounds for **maintenance, service, repair, or disposal** must have at least one piece of properly certified recovery or recycling equipment available at their business. Persons who maintain, service, repair, or dispose of only appliances that they own and that contain pump-out units are exempt from this requirement.
3. Prior to opening an appliance with a charge of 50 or more pounds for maintenance, service, or repair, the refrigerant (including liquid refrigerant) must first be evacuated from the appliance to the applicable levels using a properly certified recovery and/or recycling machine (see **Form D – Appliance Disposal Record** for required evacuation levels). Technicians may evacuate either the entire appliance or the part to be serviced, if the refrigerant in the part can be isolated to a system receiver. A technician must verify that the applicable level of evacuation has been reached in the appliance or the part before it is opened.
4. Following are **exceptions** to the evacuation requirement in item 3 above. In these cases, evacuation to the required levels may not be possible:
 - c) Evacuation of the appliance is not required prior to opening if evacuation to the atmosphere is not to be performed **after** completion of the maintenance, service, or repair, **AND** the maintenance, service, or repair does not require the removal of the compressor, condenser, evaporator, or auxiliary heat exchange coil, or the maintenance, service, or repair does not require uncovering an opening of more than four square inches of “flow area” for more than 15 minutes.

In the above case, the appliance must:

- be evacuated to a pressure no higher than 0 psig before it is opened if it is a medium-, high- or very high-pressure appliance.
 - be pressurized to a pressure no higher than 0 psig before it is opened if it is a low-pressure appliance.
 - be pressurized to a pressure no higher than 5 psig **only for oil changes**.
- d) Evacuation of the appliance is not required prior to opening if, because of leaks in the appliance, evacuation to the required levels is not attainable or would substantially contaminate the refrigerant being recovered.

In such cases, the technician must try to isolate the leak from non-leaking components as much as possible, evacuate any non-leaking components to the required levels, and evacuate leaking components to the lowest level that can be attained without substantially contaminating the refrigerant (never above 0 psig).

5. Refrigerant may be returned to the system from which it is recovered to another system owned by the same person or company without being recycled or reclaimed.

Leak Repairs (per Consent Decree)

The following applies to **all appliances and systems with full charges of equal to or greater than 50 pound of covered refrigerant**:

1. All identified leaks that are visible and accessible will be repaired, regardless of how the leaks are discovered and regardless of the calculated leak rate. If a leak occurs in one of the following areas, it is not considered visible and accessible:
 - a. Where components are insulated, under ice that forms on the outside of equipment, underground, behind walls, or are otherwise inaccessible;
 - b. Where personnel must be elevated more than two meters above a support surface;
 - c. Where components are unsafe to inspect, as determined by site personnel.
2. Leaks will be repaired as soon as practicable, but no later than the deadlines specified in 40 CFR Part 82 Subpart F.
3. Initial and follow-up verification tests will be performed on all repairs in accordance with the schedule in *SOP-02 Leak Repair Documentation Process*.
4. All repairs will be made such that the annual leak rate is brought below the applicable leak rate outlined in the *Leak Rate Calculations* section.

Large Vessels/Facilities

Document all leak repairs and verification tests on **Form I – Leak Repair Record**. If refrigerant was added to replace a leak, complete an entry on **Form F – Tracking Log**.

If using a system pressure test as a part of the leak repair process, document leaks and leak repairs on **Form L – System Pressure Test Record**.

Small Vessels

Document leak repairs and verification tests on **Form M1 Part 1 and 2 – Leak Repair/Service Record** or Form M1 Part 1 and **Form M2 – Leak Repair/Service Record for Multiple Leaks**, as applicable.

If using a system pressure test as a part of the leak repair process, document leaks and leak repairs on **Form L – System Pressure Test Record**.

Leak Rate Calculations

Whenever refrigerant is added to an appliance with a full charge of 50 or more pounds, a leak rate calculation must be performed unless the addition is made immediately following a retrofit, installation of a new appliance, or qualifies as a seasonal variance (see the *Glossary* for a definition of seasonal variance).

The **leak rate** of a system is the rate at which the system is losing refrigerant, measured between refrigerant charges. The leak rate is expressed in terms of the percentage of the system’s full charge that would be lost over a 12-month period if the current rate of loss were to continue over that period. Though two methods are allowed in the regulations for calculating the leak rate, Trident has agreed to only use the “annualized” method for all vessels and facilities in the Consent Decree. The “rolling average” method will not be used by Trident.

Refrigeration systems with a **full charge of 50 or more pounds** must not leak at a rate that would exceed a “**trigger leak rate**” (or trigger rate) during a 12-month period. Trigger rates are set by EPA. If a trigger leak rate is exceeded, see *SOP-02 Leak Repair Documentation Process* for more information on proper repair and reporting procedures.

The following types of refrigeration systems have unique trigger rates set by EPA:

Table 7. Trigger leak rates for systems with a charge of 50 or more lbs.

System	Rate
Industrial process refrigeration - complex customized appliances that are directly linked to the processes used in, for example, the chemical, pharmaceutical, petrochemical, and manufacturing industries. This sector also includes industrial ice machines, appliances used directly in the generation of electricity, and ice rinks. Where one appliance is used for both industrial process refrigeration and other applications, it will be considered industrial process refrigeration equipment if 50 percent or more of its operating capacity is used for industrial process refrigeration.	30%
Commercial refrigeration - the refrigeration appliances used in the retail food and cold storage warehouse sectors. Retail food appliances include the refrigeration equipment found in supermarkets, convenience stores, restaurants and other food service establishments. Cold storage includes the refrigeration equipment used to store meat, produce, dairy products, and other perishable goods.	20%
Comfort cooling - air-conditioning equipment.	10%
All other refrigeration	10%

Large Vessels/Facilities

Calculate the leak rate of a system on page two (2) of **Form F – Tracking Log**.

Small Vessels

Document covered refrigerant additions to appliances and systems on **Form M1 – Leak Repair/Service Record**.

The **IRCM** will use **Form M1** to calculate the leak rate of the system on page two (2) of the **Form F – Tracking Log** for each small vessel.

Form F – Tracking Log Overview

Form F – Tracking Log automatically calculates the leak rate of the system based on the information entered in the form. Unless otherwise indicated in the records, refrigerant added to an appliance to return it to normal operating characteristics and conditions is assumed to replace an equivalent amount of refrigerant lost. The form uses refrigerant additions to track the total refrigerant leaked from the appliance, taking into account all leaks, whether due to human error in operating appliances or intentional venting of an appliance.

Disposal

Appliances and systems that are typically dismantled on-site before disposal must have the refrigerant recovered in accordance with EPA's requirements for servicing prior to their disposal.

See *SOP-03 Refrigerant Recovery Procedures* for more information regarding required evacuation practices.

All Vessels/Facilities

Fill out **Form D – Appliance Disposal Record** whenever you dispose of any appliance or system.

Chronically Leaking Appliances (Annual Leak Rate Calculation)

An annual leak rate calculation must be performed to determine the percent of a system's full charge that leaked in a calendar year. The annual leak rate is automatically calculated on **Form F – Tracking Log**.

If an appliance leaks **125 percent or more of the full charge** in a calendar year, the appliance is categorized as a chronically leaking appliance. Owners or operators must then submit a report to EPA detailing efforts to identify leaks and repair the appliance. (Note: The requirement for this reporting does not come into effect until 1/1/2019).

The report must be submitted by March 1 of the subsequent year. See the *Section 608 Reporting Procedures* section of this manual for addresses to which owners and operators must submit reports.

Corporate Responsibilities

Responsibility

The procedures in this section will be the responsibility of the **IRCM** unless a section specifically notes otherwise.

Annual Training

All employees who charge Large Appliances with covered refrigerant, or remove covered refrigerant from Large Appliances, or service, inspect, or maintain Large Appliances, or complete records or reports related to refrigerant, will undergo training on at least an annual basis, in accordance with the following procedures.

Schedule

Training will be conducted on at least an annual basis. The first annual training for active employees shall be completed no later than February 28, 2019. For seasonal employees, training will occur within 60 days of their reactivation, or no later than February 28, 2019, whichever is later.

Employees hired whose duties may include charging Large Appliances with covered refrigerant, removing covered refrigerant from Large Appliances, or servicing, inspecting, or maintaining Large Appliances or completing records or reports related to refrigerant, will complete training within 60 days of the employee's first day of employment, or no later than February 28, 2019, whichever is later.

Training will be organized and facilitated by the **IRCM**. However, ensuring each person covered by the plan and Consent Decree attends and participates in the required training is the responsibility of the **Facility/Vessel Manager**, the **Maintenance Manager/Chief Engineer**, and the **Port Engineers**.

Topics Covered

Training will address the following:

1. Relevant legal requirements under Section 608 of the Clean Air Act, 42 USC 7671g, and its implementing regulations at 40 CFR Part 82, Subpart F;
2. Trident's policies and procedures as described in the RCP, including physical demonstrations of conducting leak detection and repair activities using the procedures; and
3. Employees' and contractors' individual responsibilities as described in the RCP.

Training Documentation

Training will be documented, including:

- Name of trainer
- Name of online training module
- Name of trainee
- Date of training
- Description of training, including topics covered
- Means used to verify understanding

Training records must be kept and maintained for a minimum of 5 years after the Consent Decree has been terminated.

On-the-job Training

On-the-job training will also be provided for and verified by the **Maintenance Manager/Chief Engineer/Captain/Port engineer**, who will ensure each person who works on a system is qualified and adequately trained in the job tasks that they will perform.

Annual Refrigerant Loss Cap Program (per the Consent Decree)

The Annual Refrigerant Loss Cap Program (“Program”) will apply to all Large Appliances containing Class I or Class II substances at any vessel or facility, including Large Appliances acquired after the effective date of the Consent Decree.

Release Limit

If Class I or Class II refrigerants are released from Program appliances in an amount that equals to or exceeds the following limits, Trident will complete the specified actions:

- a) If the amount released from all Program appliances exceeds 17.5%, Trident will develop a Corrective Action Plan (see the Consent Decree for Corrective Action Plan requirements).
- b) If the amount released from all Program appliances exceeds 25%, in addition to the Corrective Action Plan (see the Consent Decree for Corrective Action Plan requirements), penalties will apply.

Determining Amount Released

No later than February 28 of each calendar year beginning in 2020, Trident will determine the amount of Class I or Class II refrigerants released from each appliance during the preceding year. The **IRCM** will calculate the previous years’ Annual Refrigerant Loss Rate using the calculations contained in the Consent Decree. The **IRCM** shall submit the information required by the Consent Decree Loss Cap Program to EPA by April 1, along with a Corrective Action Plan containing the information specified in the Consent Decree if such a plan is necessary.

When determining the amount of refrigerant released, Trident may petition to exclude refrigerant lost during one leak with causes extrinsic to the appliance (i.e. accidental physical damage of an appliance by other equipment, another vessel, or an operator). For more information on petitioning extrinsic leaks, see the Consent Decree.

Fixed Leak Detector Installation Procedures (per the Consent Decree)

Large Appliances with a Full Charge of 5,000 or More Pounds of Class I or Class II Refrigerant

Fixed leak detection systems will be installed by January 1, 2019.

Large Appliances with a Full Charge of Between 50 and 5,000 Pounds of Class I or Class II Refrigerant Located on a Vessel

Fixed leak detection systems will be installed when the vessel is undergoing triennial maintenance in dry dock or by January 31, 2022, whichever is earlier.

Large Appliances with a Full Charge of Between 50 and 5,000 Pounds of Class I or Class II Refrigerant Located at a Facility

Fixed leak detection systems will be installed by January 31, 2022.

New Large Appliances with Class I or II Refrigerant

If a new Large Appliance is installed during the pendency of the Consent Decree, a fixed leak detection system will be installed within 60 days of installation of the Large Appliance.

Fluorescent Dye

Large Appliances with a Full Charge of 5,000 or More Pounds of Class I or II Refrigerant

Fluorescent dye will be added to the appliance by January 1, 2019, using *SOP-11 Fluorescent Dye*.

Large Appliances with a Full Charge of between 50 and 5,000 Pounds of Class I or Class II Refrigerant Located on a Vessel

Fluorescent dye will be added when the vessel is undergoing triennial maintenance in dry dock or by January 31, 2022, whichever is earlier, using *SOP-11 Fluorescent Dye*.

Large Appliances with a Full Charge of between 50 and 5,000 Pounds of Class I or Class II Refrigerant Located at a Facility

Fluorescent dye will be added by January 31, 2022, using *SOP-11 Fluorescent Dye*.

New Large Appliances with Class I or II refrigerant Installed at any Vessel or Facility

If a new Large Appliance is installed at any vessel or facility during the pendency of the Consent Decree, fluorescent dye will be added within 60 days of placing the Large Appliance into service.

Fluorescent Dye Maintenance

Trident will continuously maintain fluorescent dye in all applicable appliances in accordance with the manufacturer's specifications and *SOP-11 Maintaining System Dye*, maintain an UV light at each vessel and facility that uses dye, and conduct inspections as described in *SOP-05 System Leak Inspections*.

Repair Extensions

Regulations allow more than 30 days (or 120 days if no longer processing) to make repairs and complete successful verification tests if the appliance is pumped out (mothballed) or if either of the following conditions apply:

- Other federal, state, or local regulations make a repair within 30 days (or 120 days if no longer processing) impossible. Additional time is permitted to the extent needed to comply with the pertinent regulations.
- Components that must be replaced as part of the repair are not available within 30 days (or 120 days if no longer processing). Additional time is permitted up to 30 days after receiving delivery of the necessary components, not to exceed 180 days (or 270 days if no longer processing) from the date the appliance exceeded the applicable leak rate.

Repairs to other leaks that contribute to the exceedance of the leak rate and that do not require additional time must be completed and verified within the initial 30 day repair period (or 120 days if no longer processing). Document all repair efforts and the reason for the inability to make the repair within the initial 30 day repair period (or 120 day repair period if no longer processing).

Request an extension from EPA at the address specified in the *Section 608 Reporting Procedures* in this section of the RCP. The request must be made within 30 days (or 120 days if no longer processing) of the appliance exceeding the leak rate. The request will be approved unless EPA notifies Trident Seafoods otherwise. Include the following in extension requests:

1. Identification and address of the facility;
2. Name of owner or operator of appliance;
3. Leak rate;
4. Method used to determine the leak rate and full charge;
5. Date the appliance exceeded the leak rate;
6. Location of leak(s) to the extent determined to date;
7. Any repair work that has been performed thus far;
8. An estimate of when the work will be complete.

If the estimated completion date is to be extended, submit a new estimated date of completion and documentation for the reasons for the change to EPA within 30 days of identifying that the completion date must be extended.

Keep a dated copy of the submission.

Retrofit or Retirement Plan for Leaking Appliances (per Section 608)

Create a retrofit or retirement plan within 30 days of:

- An appliance leaking above the applicable leak rate, and Trident Seafoods intends to retrofit or retire rather than repair the leak;
- An appliance leaking above the applicable leak rate, and Trident Seafoods fails to take any action to identify or repair the leak; or
- An appliance continues to leak above the applicable leak rate after repairs and verification tests have been conducted.

Include the following information in the plan:

1. Identification and location of the appliance;
 2. Type and full charge of the refrigerant used in the appliance;
 3. Type and full charge of refrigerant to which the appliance will be converted, if retrofitted;
 4. Itemized procedure for converting the appliance to a different refrigerant, including changes required for compatibility with the new substitute, if retrofitted;
 5. Plan for the disposition of recovered refrigerant;
 6. A schedule, not to exceed one year, for completion of the retrofit or retirement.
- Ensure the plan is signed and dated by an authorized company official.

- Ensure the plan is accessible from the facility/vessel in which the appliance is located in paper copy or electronic format and available for EPA inspection upon request. Note this retrofit or retirement plan does not need to be automatically reported to EPA.
- Ensure all identified leaks are repaired as a part of any retrofit under such a plan.
- Unless granted additional time, perform all work in accordance with the plan and ensure it is finished within one year of the plan's date (not to exceed 13 months from when the plan was required).

Relief of Obligation: If Trident Seafoods can establish within 180 days of the plan's date that the appliance no longer exceeds the applicable leak rate and if Trident Seafoods agrees in writing to repair all identified leaks within one year of the plan's date, Trident Seafoods may request that EPA relieve it of the obligation to retrofit or retire the appliance.

In this case, submit to EPA the retrofit or retirement plan as well as the following information:

1. Date that the requirement to develop a retrofit or retirement plan was triggered;
2. The leak rate;
3. The method used to determine the leak rate and full charge;
4. The location of the leak(s) identified in the leak inspection;
5. A description of repair work that has been completed;
6. A description of repair work that has not been completed;
7. A description of why the repair was not conducted within the required time frames;
8. A statement signed by an authorized official that all identified leaks will be repaired and an estimate of when those repairs will be completed (not to exceed one year from date of the plan).

The request is considered approved unless EPA notifies Trident Seafoods within 60 days of receipt of the request that it is not approved.

Extension to the one-year schedule: Trident Seafoods may request more than one year to comply with the requirements. Refer to 40 CFR 82.157 for more information regarding extensions to retrofit and retirement plans.

Mothballing

The time-related requirements for repairing, retrofitting, or retiring a leaking system may be temporarily suspended while the system is mothballed. "*Mothball*" means to evacuate refrigerant from an appliance, or the affected isolated section or component of an appliance, to at least atmospheric pressure, and to temporarily shut down that appliance or the affected isolated section or component.

The time-related requirements resume on the day additional refrigerant is added to the appliance (or component of an appliance if the leaking component was isolated). System mothballing does not require a report to EPA unless the decision to temporarily mothball a system results in delaying an estimated completion date that has previously been submitted to EPA.

- Maintain documentation describing when the system was mothballed and when it was brought back on-line.
- Leak repairs following mothballing are still subject to initial and follow-up verification tests.

Retrofit or Retirement Plan (per Consent Decree)

Appliances with a Full Charge of 5,000 or more pounds of Covered Refrigerant

Trident Seafoods has committed to retrofitting or retiring Large Appliances on each of the following vessels with the following schedule:

Table 8. Consent Decree retrofit/retirement schedule.

Vessel	Retrofit or Retirement Date
Either the Independence or the Island Enterprise	By January 31, 2022
Eastern Wind	By January 31, 2024
Both the Island Enterprise and the Independence	By January 31, 2026
Kodiak Enterprise	By January 31, 2029
Seattle Enterprise	By January 31, 2029

Each Large Appliance that is retrofitted will use an exempt substitute.

Appliances with a Full Charge of between 50 and 5,000 pounds of Covered Refrigerant

Large Appliances on the *Entrance Point*, *Royal Viking*, the *Southern Wind*, *Northern Ram*, and the *Pacific Viking* with a full charge of between 50 and 5,000 pounds of covered refrigerant will be retrofitted to a replacement refrigerant or an exempt substitute, or retired by no later than January 31, 2022.

Large appliances on the following vessels will be retrofitted according to the following schedule:

Table 9. SEP retrofit/retirement schedule.

Vessel	Retrofit or Retirement Date
One vessel (Aldebaran, Marcy J, Northern Patriot, Gladiator)	By January 31, 2020
Three vessels (Aldebaran, Marcy J, Northern Patriot, Gladiator)	By January 31, 2021
Four vessels (Aldebaran, Marcy J, Northern Patriot, Gladiator)	By January 31, 2022

New Large Appliances

If Large Appliances are purchased or acquired during the pendency of the Consent Decree for the *Entrance Point*, *Royal Viking*, the *Southern Wind*, or the *Pacific Viking*, they must be retrofitted within 2 years of purchase or acquisition to use a replacement refrigerant or an exempt substitute.

Any Large Appliances purchased or acquired to replace Large Appliances on any vessel in the table above (SEP vessels), or the refrigeration capacity of those vessels, must be retrofitted within 2 years of purchase or acquisition and use an exempt substitute.

Medium Appliances

If a Medium Appliance is retrofitted or a new Medium Appliance acquired, it must use a replacement refrigerant or exempt substitute.

RCP Update Procedures (per the Consent Decree)

The **IRCM** will review this manual at least annually to ensure continuing compliance with regulations and the Consent Decree. Revisions will be also be made as necessary as part of a Corrective Action Plan (required when Annual Refrigerant Loss Cap Program limits are exceeded), or as necessary to account for changes in technology or circumstances.

Revisions to the RCP will be submitted to EPA by April 1 in the form and format specified in the Consent Decree. If EPA disapproves of the plan or provides edits, Trident will correct deficiencies or incorporate EPA's edits and resubmit the RCP within 45 days or other timeframe agreed to in writing.

Third Party Verification Procedures (per the Consent Decree)

Trident Seafoods will hire a Third Party Auditor to conduct audits and assess Trident's compliance with the requirements of the Consent Decree and all applicable regulatory requirements. See the Consent Decree for a detailed description of Third Party Auditor requirements and procedures. A response to each auditor's report shall be submitted by the **IRCM** to EPA within 60 days of receiving the report.

EPA Reporting Procedures (per the Consent Decree)

By April 1 each year, Trident Seafoods will submit records related to the proceeding calendar year to EPA: The records shall include:

- Records required by 40 CFR 82.157 and .166,
- Loss Cap Program Records,
- Records of any new large appliances put into service,
- Records of Comprehensive Leak Tests and Inspections,
- A list of all employees performing obligations under the Consent Decree, including which ones were trained in accordance with requirements,
- Access to, or copies of training materials other than the RCP and SOPs,
- Current copy of RCP including record of changes,
- Certification of compliance with RCP, and
- Any other records as specified in the Consent Decree.

Consent Decree Violation Reporting Procedures

If Trident Seafoods violates, or believes that they may violate, any requirement of the Consent Decree, Trident Seafoods will notify EPA of such violation and its likely duration, in writing, within 10 business days of the date Trident Seafoods becomes aware of the problem. An explanation of the violation's likely cause and duration, and remedial steps taken to prevent or minimize the violation will be included in the notification.

If Trident Seafoods commits a violation of the Consent Decree or any other event affecting Trident's performance under the Consent Decree that may pose an immediate threat to the public health or welfare or the environment, Trident Seafoods will notify EPA orally or by electronic transmission as soon as possible, but no later than 24 hours from the time they first knew of the violation or event.

If Trident Seafoods knows of an event that may cause a delay in fulfilling the performance of any obligation under the Consent Decree, Trident Seafoods will notify EPA orally or by electronic

transmission as soon as possible, but no later than 72 hours from the time they first knew of the occurrence or event. Further, a report will be provided, in writing, within 7 days that provides an explanation and/or description of the delay.

These timeframes for reporting Consent Decree violations do not supersede any applicable regulatory deadlines for spill or release reporting at the facilities and vessels. Trident Seafoods must still make any reports required by law, on the timeframe set by law.

For a detailed description of reporting Consent Decree violations to EPA, see the Consent Decree (Section XI).

Section 608 Reporting Procedures

Any notifications required by 40 CFR Part 82, Subpart F (and not by the Consent Decree) must be submitted electronically to 608reports@epa.gov unless the notification contains confidential business information.

If the notification contains confidential business information, the information should be submitted to:

Section 608 Program Manager
Stratospheric Protection Division
Mail Code: 6205T; U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Regulatory Requirements Glossary

Appliance means any device which contains and uses a class I or class II substance or substitute as a refrigerant and which is used for household or commercial purposes, including any air conditioner, motor vehicle air conditioner, refrigerator, chiller, or freezer. For a system with multiple circuits, each independent circuit is considered a separate appliance. The terms **system** and **appliance** are used interchangeably in this manual. (Also see definitions for Small Appliance, Medium Appliance, and Large Appliance).

Approved equipment testing organization means any organization which has applied for and received approval from the Administrator pursuant to 40 CFR 82.160.

CFC Chlorofluorocarbons (CFCs) are gas or liquid compounds that contain atoms of chlorine, fluorine, and carbon. CFCs are used as refrigerants, solvents, foam blowing agents, and in other smaller applications.

Class I refers to an ozone depleting substance that is listed in 40 CFR part 82 subpart A, appendix A (NOTE: Production and importation of CFCs and halons is no longer permitted under the Montreal Protocol. All use will cease as acceptable substitutes are found.).

Class II Substances refers to an ozone depleting substance that is listed in 40 CFR part 82 subpart A, appendix B.

Commercial refrigeration means the refrigeration appliances used in the retail food and cold storage warehouse sectors. Retail food appliances include the refrigeration equipment found in supermarkets, convenience stores, restaurants and other food service establishments. Cold storage includes the refrigeration equipment used to store meat, produce, dairy products, and other perishable goods.

Comfort Cooling means the air-conditioning appliances used to provide cooling in order to control heat and/or humidity in occupied facilities including but not limited to residential, office, and commercial buildings. Comfort cooling appliances include but are not limited to chillers, commercial split systems, and packaged roof-top units.

Component means a part of the refrigeration circuit within an appliance including, but not limited to, compressors, condensers, evaporators, receivers, and all of its connections and subassemblies.

Covered Refrigerant (per the Consent Decree) means any refrigerant as defined in 40 CFR 82.152, with the exception of any exempt substitute as defined in 40 CFR 82.152 and 82.154(a)(1).

Day, as defined in the Consent Decree, means a calendar day unless expressly stated to be a business day. In computing any period of time under the Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next business day.

De Minimis means small unavoidable quantities of refrigerant released in the course of making good-faith attempts to recapture and recycle or safely dispose of refrigerant.

Disposal means the process leading to and including:

1. The discharge, deposit, dumping or placing of any discarded appliance into or on any land or water;
2. The disassembly of any appliance for discharge, deposit, dumping or placing of its discarded component parts into or on any land or water;

3. The vandalism of any appliance such that the refrigerant is released into the environment or would be released into the environment if it had not been recovered prior to the destructive activity;
4. The disassembly of any appliance for reuse of its component parts; or
5. The recycling of any appliance for scrap.

Domestic means equipment typically made for use in households as opposed to commercially. Generally, these are smaller appliances.

Effective Date has the definition provided in Section XX of the Consent Decree.

Evacuate means to remove something (as gas or water) from, especially by pumping.

Exempted substitutes are: carbon dioxide, nitrogen, and water in any application; ammonia in commercial or industrial process refrigeration; chlorine and hydrocarbons in industrial process refrigeration; ethane (R-170) in very low temperature refrigeration equipment and equipment for non-mechanical heat transfer; and propane (R-290), isobutane (R-600a), and R-441A in various retail and household refrigerant applications.

Extended lay-up means a period of time lasting two weeks or longer in which a Vessel is in port, not actively preparing for production operations, and when each Large Appliance is Pumped Down.

Facility or **Facilities** means all land based facilities that contain at least one Large Appliance and that are owned or operated by Trident Seafoods as of the effective date of the Consent Decree, or which Trident may acquire during the effective period of the Consent Decree and that Trident has not transferred pursuant to Paragraph 4 of the Consent Decree.

Fixed Leak Detection System means a mechanical device installed on or near a Large Appliance(s) that is designed, located, and calibrated to detect the escape of covered refrigerant from said Large Appliance.

Follow-up verification test means those tests that involve checking the repairs to an appliance after a successful initial verification test and after the appliance has returned to normal operating characteristics and conditions and to verify that the repairs were successful. Potential methods for follow-up verification tests include, but are not limited to, the use of soap bubbles as appropriate, electronic or ultrasonic leak detectors, pressure or vacuum test, fluorescent dye and black light, infrared or near infrared tests, and handheld gas detection devices.

Freon[®] means, for purposes of this subpart, any substances consisting in part or whole of class I or class II ozone depleting substances (such as CFCs, HCFCs, and halons) that are used for heat transfer purposes and that provide a cooling effect. Other refrigerants, such as ammonia and CO₂, are not regulated in the same way and are not covered by this plan.

Full charge (per the Consent Decree) means the amount of covered refrigerant required for normal operating characteristics and conditions of a Large Appliance as determined in accordance with 40 CFR 82.152. For Large Appliances with a full charge greater than 5,000 pounds of refrigerant, the full charge will be determined by using the actual measurement of the amount of covered refrigerant added or evacuated from the Large Appliance, including for seasonal variances.

For Large Appliances with a full charge between 50 and 5,000 pounds of refrigerant, if Trident has actual measurements of the amount of refrigerant added or evacuated from the appliance, including for seasonal variances, the full charge will be set using that method; otherwise the full charge will be set by

using appropriate calculations based on component sizes, density of refrigerant, volume of piping, and other relevant considerations.

Global Warming Potential (GWP) indicates how well a gas traps heat in the atmosphere. Many of these gases remain in the atmosphere for thousands of years. The higher the GWP, the more heat the specific gas can keep in the atmosphere, and the faster the earth's climate will change.

Halons are compounds that contain bromine that are used primarily as fire extinguishing agents. Halons release ozone-destroying bromine, which is many times more effective at destroying ozone than chlorine.

HCFC Hydrochlorofluorocarbons (HCFCs), are a subset of CFCs. HCFCs are used primarily as refrigerants and also deplete the ozone layer, though much less quickly than CFCs. As a result, HCFCs have been used as transitional substitutes for CFCs as the United States moves toward eliminating use of ozone depleting substances.

High-pressure appliance means an appliance that uses a refrigerant with a liquid phase saturation pressure between 170 psia and 355 psia at 104 °F. This definition includes but is not limited to appliances using R-22, R-401A, R-401B, R-402A R-402B, R-407A, R-407C, R-408A, R-409A R-410A, R-411A, R-411B and R-502.

Industrial process refrigeration means complex customized appliances that are directly linked to the processes used in, for example, the chemical, pharmaceutical, petrochemical, and **manufacturing** industries. This sector also includes industrial ice machines, appliances used directly in the generation of electricity, and ice rinks. Where one appliance is used for both industrial process refrigeration and other applications, it will be considered industrial process refrigeration equipment if 50 percent or more of its operating capacity is used for industrial process refrigeration.

Industrial process shutdown means when an industrial process or facility temporarily ceases to operate or manufacture whatever is being produced at that facility.

Initial verification test means those leaks that are conducted after the repair is finished to verify that a leak or leaks have been repaired before refrigerant is added back to the appliance.

Large Appliance (per the Consent Decree) means any industrial process refrigeration or commercial refrigeration equipment, as defined in 40 CFR 82.152 that "normally contains" (as defined in 40 CFR 82.152) more than 50 pounds of covered refrigerant.

Leak rate means the rate at which an appliance is losing refrigerant, measured between refrigerant charges. The leak rate is expressed in terms of the percentage of the appliance's full charge that would be lost over a 12-month period if the current rate of loss were to continue over that period. The rate must be calculated using one of two methods. The same method must be used for all appliances subject to the leak repair requirements located at an operating facility. Trident has agreed to use only the "annualized" method as part of the Consent Decree. The annualized method is described below:

1. Annualized Method:

- Step 1. Take the number of pounds of refrigerant added to the appliance to return it to a full charge, whether in one addition or if multiple additions related to the same leak, and divide it by the number of pounds of refrigerant the appliance normally contains at full charge;

Step 2. Take the shorter of the number of days that have passed since the last day refrigerant was added or 365 days and divide that number by 365 days;

Step 3. Take the number calculated in Step 1 and divide it by the number calculated in Step 2; and

Step 4. Multiply the number calculated in Step 3 by 100 to calculate a percentage.

The annualized method is summarized in the following formula:

$$\text{Leak Rate (\% per year)} = \frac{\text{STEP 1}}{\text{pounds of refrigerant in full charge}} \times \frac{\text{365 days per year}}{\text{shorter of: (a) \# of days since refrigerant was last added, or (b) 365 days}} \times \text{STEP 4} \text{ 100\%}$$

Leak Inspection means the examination of an appliance to determine the location of refrigerant leaks. Potential methods include, but are not limited to, ultrasonic test, gas-imaging cameras, bubble tests as appropriate, or the use of a leak detection device operated and maintained according to the manufacturer guidelines. Methods that determine whether the appliance is leaking refrigerant but not the location of a leak, such as standing pressure/vacuum decay tests, sight glass checks, viewing receiver levels, pressure checks, and charging charts, must be used in conjunction with methods that can determine the location of a leak.

Low-Global-Warming-Potential Refrigerant (per the Consent Decree) means (i) a refrigerant with a global-warming potential (“GWP”) equal to or less than the GWP of R-448A, or (ii) other refrigerant(s) with a GWP higher than that of R-448A that are approved by EPA pursuant to Section XII of the Consent Decree.

Low-loss fitting means any device that is intended to establish a connection between hoses, appliances, or recovery or recycling machines and that is designed to close automatically or to be closed manually when disconnected, minimizing the release of refrigerant from hoses, appliances, and recovery or recycling machines.

Low-pressure appliance means an appliance that uses a refrigerant with a liquid phase saturation pressure below 45 psia at 104°F. This definition includes but is not limited to appliances using R-11, R-123, R-113, and R-245fa.

Major maintenance, service, or repair means any maintenance, service, or repair that involves the removal of any or all of the following appliance components: compressor, condenser, evaporator, or auxiliary heat exchange coil; or any maintenance, service, or repair that involves uncovering an opening of more than four (4) square inches of “flow area” for more than 15 minutes.

Medium Appliance (per the Consent Decree) means any appliance that “normally contains” (as defined in 40 CFR 82.152) between 5 and 50 pounds of covered refrigerant.

Medium-pressure appliance means an appliance that uses a refrigerant with a liquid phase saturation pressure between 45 psia and 170 psia at 104°F. This definition includes but is not limited to appliances using R-114, R-124, R-12, R-401C, R-134a, R-406A, and R-500.

Mothball means to evacuate refrigerant from an appliance, or the affected isolated section or component of an appliance, to at least atmospheric pressure, and to temporarily shut down that appliance.

MVAC (Motor vehicle air conditioner) means any appliance that is a motor vehicle air conditioner as defined in 40 CFR part 82, subpart B.

MVAC-like appliance means mechanical vapor compression, open-drive compressor appliances with a normal charge of 20 pounds or less of refrigerant used to cool the driver's or passenger's compartment of an off-road motor vehicle. This includes the air-conditioning equipment found on agricultural or construction vehicles. This definition is not intended to cover appliances using R-22 refrigerant.

No longer processing means that the particular season has ended and that refrigeration equipment will no longer be used for freezing or chilling for a given season. For the purposes of this manual, the term *no longer processing* is equivalent to the regulatory definition of *industrial process shutdown*.

Non-exempt substitute means any chemical or product, whether existing or new, that is used by any person as an EPA approved replacement for a class I or II ozone depleting substance that is not exempt from deliberate venting (Exempted substitutes are: carbon dioxide, nitrogen, and water in any application; ammonia in commercial or industrial process refrigeration; chlorine and hydrocarbons in industrial process refrigeration; ethane (R-170) in very low temperature refrigeration equipment and equipment for non-mechanical heat transfer; and propane (R-290), isobutane (R-600a), and R-441A in various retail and household refrigerant applications).

Normal operating characteristics and conditions means appliance operating temperatures, pressures, fluid flows, speeds, and other characteristics, including the full charge of the appliance, that would be expected for a given process load and ambient condition during normal operation. Normal operating characteristics and conditions are marked by the absence of atypical conditions affecting the operation of the appliance.

Opening an appliance means any maintenance, service, repair, or disposal of an appliance that would release refrigerant in the appliance to the atmosphere. Connecting and disconnecting hoses and gauges to measure pressures, add refrigerant, or recover refrigerant from the appliance are not considered "opening an appliance."

Ozone Depleting Potential (ODP) indicates the amount of degradation to the ozone layer a gas can cause. The higher the ODP, the more ozone is destroyed.

Ozone Depleting Substances (ODS) are compounds that contribute to stratospheric ozone depletion. ODS include chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons, methyl bromide, carbon tetrachloride, hydrobromofluorocarbons, chlorobromomethane, and methyl chloroform. Class I and class II substances are ozone depleting substances.

Parent company means an individual, corporation, partnership, association, joint-stock company, or an unincorporated organization that can direct or cause the direction of management and policies of another entity, through the ownership of shares or otherwise.

Permanently sealed equipment refers to refrigeration systems or appliances that are permanently (or hermetically) sealed so that there are no refrigerant charging connections or potentially removable components containing ozone depleting substances. By definition, small appliances are permanently sealed.

Person means any individual or legal entity, including an individual, corporation, partnership, association, state, municipality, political subdivision of a state, Indian tribe, and any agency, department, or instrumentality of the United States, and any officer, agent, or employee thereof.

Plate Freezer (per the Consent Decree) means freezers designed for freezing of products packed in pans that are pressed between plates in which refrigerant circulates through channels within the plates.

PSIG means pound-force per square inch gauge.

Pumped Down means when liquid refrigerant is moved internally within the appliance from system evaporators to be stored in the high side of the system or in other system components to minimize potential refrigerant loss. An appliance component is pumped down if refrigerant has been evacuated from the component to the maximum extent possible, taking into consideration equipment availability and the limitations of the appliance in which the component is a part.

Pumped-out and Isolated Component means a component of an appliance from which refrigerant has been evacuated to the levels specified in 40 CFR 82.156 and which is physically prevented from containing refrigerant through use of a valve, flange, or other device. A pumped-out and isolated component does not include the valve, flange, or other device used to prevent the component from containing refrigerant.

Reclaim means to reprocess refrigerant to certain specifications and to verify that the refrigerant meets these specifications.

Recover means to remove refrigerant in any condition from an appliance and to store it in an external container without necessarily testing or processing it any way.

Recovery efficiency means the percentage of refrigerant in an appliance that is recovered by a piece of recycling or recovery equipment.

Recycle, when referring to refrigerant, means to extract refrigerant from an appliance (except MVACs) and clean it for reuse in equipment of the same owner without meeting all of the requirements for reclamation. In general, recycled refrigerant is cleaned using oil separation and single or multiple passes through devices, such as replaceable core filter-driers, which reduce moisture, acidity, and particulate matter.

Refrigerant means, for purposes of this subpart, any substance, including blends and mixtures, consisting in part or whole of class I or class II ozone depleting substance or substitute that is used for heat transfer purposes and provides a cooling effect. Other refrigerants, such as ammonia and CO₂, are not regulated in the same way and are not covered by this plan.

Refrigerant circuit means the parts of an appliance that are normally connected to each other (or are separated only by internal valves) and are designed to contain refrigerant.

Replacement Refrigerant (per the Consent Decree) means a low-GWP, non-ODS refrigerant.

Retire, when referring to an appliance, means the removal of the refrigerant and the disassembly or impairment of the refrigerant circuit such that the appliance as a whole is rendered unusable by any person in the future.

Retrofit means to convert an appliance from one refrigerant to another refrigerant. Retrofitting includes the conversion of the appliance to achieve system compatibility with the new refrigerant and may include, but is not limited to, changes in lubricants, gaskets, filters, driers, valves, o-rings or appliance components.

Seasonal Variance means the removal of refrigerant from an appliance due to a change in ambient conditions caused by a change in season, followed by the subsequent addition of an amount that is less than or equal to the amount of refrigerant removed in the prior change in season, where both the removal and addition of refrigerant occurs within one consecutive 12-month period.

Self-contained recovery equipment means refrigerant recovery and/or recycling equipment that is capable of removing the refrigerant from an appliance without the assistance of components contained in the appliance.

Small appliance means any appliance that is fully manufactured, charged, and hermetically sealed in a factory with five (5) pounds or less of refrigerant, including, but not limited to, refrigerators and freezers (designed for home, commercial, or consumer use), medical or industrial research refrigeration equipment, room air conditioners (including window air conditioners and packaged terminal air heat pumps), dehumidifiers, under-the-counter ice makers, vending machines, and drinking water coolers.

Stratosphere is the upper part of the earth's atmosphere, characterized by an almost constant temperature throughout its altitude, which begins at about seven miles and continues to about 50 miles. The stratosphere is characterized by the presence of ozone gas (in the ozone layer) and by temperatures which rise slightly with altitude, due to the absorption of ultraviolet radiation.

Substitute means any chemical or product, whether existing or new, that is used as a refrigerant to replace a class I or II ozone depleting substance. Examples include, but are not limited to hydrofluorocarbons, perfluorocarbons, hydrofluoroolefins, hydrocarbons, ammonia, carbon dioxide, and blends thereof. As used in this subpart, the term "exempt substitutes" refers to certain substitutes when used in certain end uses that are specified in §82.154(a)(1) as exempt from the venting prohibition and the requirements of the applicable subpart, and the term "non-exempt substitutes" refers to all other substitutes and end uses not so specified in §82.154(a)(1).

System means any device, no matter how large or small, which contains and uses a **refrigerant** and which is used for household or commercial purposes, including any air conditioner, refrigerator, chiller, or freezer. A **closed-loop system** is considered to be a **single appliance** or **single system**. The terms **system** and **appliance** are used interchangeably in this manual.

System-dependent recovery equipment means refrigerant recovery equipment that requires the assistance of components contained in an appliance to remove the refrigerant from the appliance.

System Receiver means the isolated portion of the appliance, or a specific vessel within the appliance, that is used to hold the refrigerant charge during the servicing or repair of that appliance.

Technician means any person who in the course of maintenance, service, or repair of an appliance (except MVACs) could be reasonably expected to violate the integrity of the refrigerant circuit and

therefore release refrigerants into the environment. Technicians also means any person who in the course of disposal of an appliance (except small appliances, MVACs, and MVAC-like appliances) could be reasonably expected to violate the integrity of the refrigerant circuit and therefore release refrigerants from the appliances into the environment. Activities reasonably expected to violate the integrity of the refrigerant circuit include but are not limited to: attaching or detaching hoses and gauges to and from the appliance; adding or removing refrigerant; adding or removing components; and cutting the refrigerant line. Activities such as painting the appliance, requiring an external electrical circuit, replacing insulation on a length of pipe, or tightening nuts and bolts are not reasonably expected to violate the integrity of the refrigerant circuit. Activities conducted on appliances that have been properly evacuated pursuant to 40 CFR 82.156 are not reasonably expected to release refrigerants unless the activity includes adding refrigerant to the appliance. Technicians could include but are not limited to installers, contractor employees, in-house service personnel, and owners and/or operators of appliances.

Vent means to release or discharge (gas, for example) through an opening.

Very high-pressure appliance means an appliance that uses a refrigerant with a critical temperature below 104°F or with a liquid phase saturation pressure above 355 psia at 104°F. Examples include but are not limited to appliances using R-13, R-23, R-503, R-508A, and R-508B.

Vessel or Vessels means any ships, boats, or other watercraft that contain at least one Large Appliance and that are owned or operated by Trident as of the effective date of the Consent Decree, or which Trident may acquire during the effective period of the Consent Decree.

Appendix A: Standard Operating Procedures

SOP 1: Leak Inspection Parameters

SOP 2: Leak Repair Documentation

SOP 3: Refrigerant Recovery

SOP 4: Leak Detection Methods

SOP 5: System Leak Inspections

SOP 6: Plate Freezer Inspections

SOP 7: System Pressure Vacuum Test

SOP 8: System Pressure Test Using Refrigerant

SOP 9: System Integrity Inspections

SOP 10: Awareness to Reduce Leaks/Damage to the System

SOP 11: Maintaining System Dye

SOP 12: Leak Detector Settings

Appendix B: Forms

Form A: Certified Technician Log

Form B: Certified Contractor Technician Log

Form C: Recovery Devices Log

Form D: Appliance Disposal Record

Form E: Refrigerant Systems Log

Form F: Tracking Log for Systems

Form G: Inventory Tracking Log

Form H: System Maintenance Log

Form I: Leak Repair Record

Form J: System Leak Inspection Record

Form K: Plate Freezer Leak Inspection Record

Form L: System Pressure Test Record

Form M: Leak Repair/Service Record (Verification Tests)

Form N: Fixed Leak Detector Calibration Record

Form O: Fixed Leak Detector Identification Record

Form P: Revisions Log

