UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 9

In The Matter Of:	)	
	)	
SAN GABRIEL VALLEY SUPERFUND SITES,	)	
Areas 1-4	)	
BALDWIN PARK OPERABLE UNIT	)	
	)	
Aerojet General Corporation	)	
Azusa Gas Systems	)	
Azusa Pipe and Tube Bending	)	
Allegiance Healthcare Corporation	)	
Fairchild Holding Corporation (formerly	)	
known as Fairchild Industries)	)	
GenCorp Inc.	)	
The Hartwell Corporation	)	
Huffy Corporation	)	
J.H. Mitchell and Sons Distributors, Inc.	)	
Lockheed Martin Corporation	)	
Mobil Oil Corporation	)	
Oil and Solvent Process Company	)	
Phaostron Instrument and Electronic Company	)	
Philip Morris Incorporated	)	
Reichhold Inc (formerly known as Reichhold	)	
Chemicals, Inc)	)	
Rubber/Urethanes Inc.	)	
Screwmatic Inc.	)	
The Valspar Corporation	)	
White and White Properties	)	
Wynn Oil Company	)	
	)	
	)	
Respondents.	)	U.S. EPA
	)	Docket No.2000-13
	)	
Proceeding Under Section 106(a) of the	)	
Comprehensive Environmental Response,	)	
Compensation, and Liability Act of 1980,	)	
as amended, 42 U.S.C. § 9606(a), and	)	
under Section 7003 of the Solid Waste	)	
Disposal Act, as amended, 42 U.S.C. § 6973	)	

FIRST AMENDED ADMINISTRATIVE ORDER
FOR REMEDIAL DESIGN AND REMEDIAL ACTION

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Attachment 1 Map showing location of the Baldwin Park Operable Unit

Attachment 2 Baldwin Park Operable Unit Record of Decision

Attachment 3 Baldwin Park Operable Unit Explanation of Significant Differences

Attachment 4 Amended Statement of Work for Administrative Order 2000-13

I. INTRODUCTION AND JURISDICTION

1. This Amended Order ("the Amended Order" or "the Order") directs Respondents to perform a remedial design for the remedy described in the Record of Decision for the Baldwin Park Operable Unit of the San Gabriel Valley Superfund Sites dated March 31, 1994, and the Explanation of Significant Differences issued in May 1999, and to implement the design by performing the remedial action. This Amended Order is issued to Respondents by the United States Environmental Protection Agency ("EPA") under the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9606(a). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580 (52 Fed. Reg. 2926, January 29, 1987), and was further delegated to EPA Regional Administrators on September 13, 1987 by EPA Delegation No. 14-14-B. This authority was further delegated to the Director of the Superfund Division and Superfund Branch Chiefs, EPA Region 9, by an order dated November 16, 2001. This Amended Order is also issued under the authority vested in the Administrator of EPA by Section 7003 of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976 ("RCRA"), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. § 6901 et seq. (the "Act"), which authority has been duly delegated to the Regional Administrator of EPA, Region IX, and further delegated to the Director of the Superfund Division by an order dated April 6, 1998.

2. EPA issued the original Order in this matter ("the Original Order") on June 30, 2000. The Original Order directed nineteeen Respondents to perform a remedial design for the remedy described in the Record of Decision for the Baldwin Park Operable Unit ("the BPOU Area" or "the Site") of the San Gabriel Valley

Superfund Sites dated March 31, 1994, and the Explanation of Significant Differences issued in May 1999, and to implement the design by performing the remedial action. The following Respondents ("the Cooperating Respondents") have been complying with the Order by performing the required activities: Aerojet General Corporation; Azusa Gas Systems; Fairchild Holding Corporation (formerly known as Fairchild Industries); The Hartwell Corporation; Huffy Corporation; Oil and Solvent Process Company; Reichhold Inc. (formerly known as Reichhold Chemicals, Inc.); and Wynn Oil Company. The Cooperating Respondents have been complying with the Original Order by performing a joint cleanup and water supply project ("the Joint Project") with certain local water entities in the San Gabriel Valley area of Los Angeles, California ("the Water Entities"). Under the Joint Project, the Cooperating Respondents are paying for, and the Water Entities are performing, the design, construction, and operation and maintenance activities that both will implement EPA's selected CERCLA remedy and provide the Water Entities with a supply of drinking water. The Cooperating Respondents have been participating in the Joint Project while simultaneously negotiating a detailed written agreement with the Water Entities ("the Project Agreement") that describes the obligations and rights of the Cooperating Respondents and the Water Entities under the Joint Project for a fifteen year term. The Project Agreement is now in final form and EPA expects that the Cooperating Respondents and the Water Entities will shortly be signing it.

3. EPA, through this Amended Order, is amending the Original Order solely for the purpose of adding GenCorp Inc. ("GenCorp") to the Order as a Respondent. Respondent GenCorp, which is the parent corporation of Respondent Aerojet General Corporation ("Aerojet"), is being added to the Order as a backup to Respondent Aerojet to fulfill Aerojet's obligations under the Order in the event that Aerojet fails to comply with its financial obligations under the Project Agreement, as described

in greater detail in Paragraphs 51 and 52 below.

II. FINDINGS OF FACT

4. The BPOU Area is an area of groundwater contamination over a mile wide, eight miles long, and more than 1,000 feet deep, in and near the cities of Azusa, Irwindale, Baldwin Park, and West Covina in Los Angeles County, California, and depicted generally on the map attached as Attachment 1. The contamination results from the improper handling and/or disposal of various chemicals, including but not limited to the following: perchloroethylene (PCE); trichloroethene (TCE); carbon tetrachloride (CTC); 1,2-dichloroethane (1,2-DCA); 1,1,1-trichloroethane (1,1,1-TCA); perchlorate; N-nitrosodimethylamine (NDMA); and 1,4-dioxane. Known degradation products of PCE, TCE, and CTC are also present, including cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), 1,1-dichloroethene (1,1-DCE), vinyl chloride, and chloroform. TCE, PCE, and CTC are known as volatile organic compounds (VOCs) or chlorinated solvents and were used in large quantities at industrial facilities in Azusa and surrounding areas from the 1940s through the 1980s for degreasing, metal cleaning and other purposes. Perchlorate is used in solid rocket fuel; NDMA has been found in liquid rocket fuel; and 1,4-dioxane has been used as a stabilizer in chlorinated solvents. These chemicals were released to the ground by on-site disposal, careless handling, leaking tanks and pipes, and other means. More than one-quarter of the approximately 366 water supply wells in the San Gabriel Valley have been found to be contaminated with one or more of the above chemicals.

5.A. Respondent Aerojet General Corporation ("Respondent Aerojet") owned and conducted operations at a portion of the Site, namely, the property located at 1100 W. Hollyvale Street in Azusa, California ("the Hollyvale property"). Respondent Aerojet operated at this location from approximately 1943 to 2001 and

owned portions of this property from approximately 1948 to 2001. Respondent Aerojet's activities at the Hollyvale property included the testing and production of solid and liquid fuel rockets, torpedo research, manufacture of pressure vessels, the development and testing of electro-optical sensing devices, generator simulation systems, and semiconductor research and development. In support of these activities, Respondent Aerojet operated rocket motor and waste propellant "burn areas," vapor degreasers, leach pits, leach beds, leach fields, industrial wastewater sumps, and waste treatment systems.

B. Chemicals used at the Hollyvale property included, but were not limited to, TCE, PCE, CTC, 1,1,1-TCA, NDMA, and perchlorate. Between 1943 and 1988, hazardous substances and solid wastes, including some or all of those described in this Section, were used at the Hollyvale Property. Evidence exists that releases and disposal of hazardous substances and solid wastes occurred at Respondent Aerojet's Hollyvale property. A documented leakage of TCE from a solvent storage tank and associated piping occurred in 1979, resulting in TCE contamination of soil at up to 420 ug/kg, and excavation of 20 cubic yards of contaminated material. Numerous other written references to possible onsite disposal have been made. Respondent Aerojet has reported that beginning in approximately 1943, testing of rocket motors produced large amounts of wastewater that was allowed to evaporate or percolate into the ground. In 1947, Respondent stated that solid waste materials and organic solvents from a proposed chemical laboratory were to be accumulated and burned. In 1949, Los Angeles County officials cited Respondent Aerojet for leaching unspecified waste materials into the underlying water table through the use of seepage beds and cesspools. Written records from 1949 also describe a proposal by Respondent Aerojet to discharge 2 gallons per day of wastes containing TCE and other solvents into leachfields. Respondent Aerojet did not begin discharging wastes into an industrial waste sewer until approximately 1953. Even after

Respondent Aerojet began to use the industrial waste sewer, Respondent Aerojet reported that industrial waste occasionally overflowed onto the ground due to inadequate waste storage capacity. Respondent Aerojet also reported in the 1950s that discharges to the ground of industrial wastewater occurred even after Respondent Aerojet installed a collection and disposal system, whenever rainfall exceeded 0.15 inch.

C. Sampling at the Hollyvale property has detected perchlorate, NDMA, 1,4-dioxane, TCE, PCE, CTC, 1,1,1-TCA, and other chemicals of concern in soil, soil vapor, and/or groundwater. In 1992 to 1994, shallow soil vapor samples were collected at more than 800 locations, and numerous deep vapor wells were installed and sampled. The sampling results show that releases have occurred at or near more than one dozen likely source areas. At one likely source area, known as Building #57, multiple contaminants were detected at multiple depths. In shallow soil vapor, sampling results indicate a broad area of TCE contamination in the tens and hundreds of ug/l with a peak concentration at 690 ug/l near the location where vapor degreasers using PCE, TCE, and 1,1,1-TCA were operated from the early 1950s through the 1970s. A broad area of CTC contamination was also detected, with a peak concentration at 6 ug/l; a broad area of 1,1,1-TCA contamination was detected with a peak concentration of 100 ug/l; and a broad area of PCE contamination was detected with a peak concentration at 31 ug/l.

In vapor samples collected from a deep vapor well at the Building #57 source area, TCE was detected at 98, 170, and 310 ug/l at 5, 20, and 34 feet below ground surface ("bgs") respectively; and PCE was detected at 11, 18, and 25 ug/l at the three depths respectively. In a second vapor well east of the building, TCE was detected at 15, 72, and 75 ug/l at 5, 20, and 34 feet bgs respectively; PCE was detected at 30, 71, and 69 ug/l at the three depths respectively; and 1,1,1-TCA was detected at 300, 1600, and 1900 ug/l at the three depths respectively. In a

third vapor well, TCE was detected at 27, 97, and 160 ug/l at 5, 20, and 30 feet bgs respectively; PCE was detected at 28, 74, and 98 ug/l at the three depths respectively; and CTC was detected at 4, 14, and 23 ug/l at the three depths respectively. In the annulus of a nearby groundwater monitoring well, TCE was detected at 12, 100, 78, and 260 ug/l at 38, 93, 141, and 198 feet bgs respectively; PCE was detected at 88, 90, 62, and 510 ug/l at the four depths respectively; and CTC was detected at 3, 18, 11, and 25 ug/l at the four depths respectively. In an intermediate and deep zone vapor monitoring well in the same area, TCE was detected at 220, 250, 390, and 640 ug/l at 93, 163, 202, and 306 feet bgs; PCE was detected at 18, 4, 10, and 260 ug/l at the four depths respectively; and CTC was detected at 3, 10, 19, and 29 ug/l at the four depths respectively.

Other source areas where soil and soil vapor sampling have detected significant levels of contamination include former vapor degreaser locations DE-1a, DE-2, DE-9, DE-10, DE-11, DE-13, DE-15, DE-16, and DE-17; former leach pits LP-3 and LP-4; former drum storage areas DR-6, DR-8, DR-9, and DR-26; former ponded liquid areas PL-1 and PL-5; former storage tank location T-3; and suspected waste disposal area WD-1. The locations of these source areas are shown in the revised workplan for the Azusa/Irwindale Study Area site assessment, prepared by Harding Lawson Associates, dated July 17, 1991.

From 1992 through 1994, Respondent Aerojet installed five groundwater monitoring wells. Groundwater samples were collected and analyzed approximately 18 times between 1993 and 1999. In the three wells located most downgradient (MW-1, MW-2, and MW-4), TCE, PCE, CTC, perchlorate, NDMA, 1,4-dioxane, and other chemicals of concern have been detected. TCE has been detected at up to 4,200 ug/l; PCE has been detected at up to 2,500 ug/l; CTC has been detected at up to 66 ug/l; perchlorate has been detected at up to 2,180 ug/l; and NDMA has been detected at up to

2.2 ug/l. The chemical 1,4-dioxane has been detected at up to 26.5 ug/l.

6.A. Respondent GenCorp is the successor-in-interest to the General Tire and Rubber Company ("General Tire"). Beginning in or about July 1944 and continuing until at least February 1945, General Tire operated a joint venture with Aerojet Engineering Corporation ("Aerojet Engineering"), the predecessor-in-interest to Respondent Aerojet, at the Aerojet facility in Azusa described in Paragraph 5 of this Order. The business purpose of this joint venture was to produce Jet Assisted Take-Off ("JATO") rockets through contracts with the United States Army and Navy. At the time of entering into this joint venture, Aerojet Engineering was experiencing financial and managerial difficulty in meeting its obligations under existing contracts that it had with the United States Army and Navy.

B. As part of this joint venture, Respondent General Tire provided both financial and managerial assistance to Aerojet Engineering in the performance of these contracts and received 50% of the net profits of these contracts. Although the prime contracts were held in Aerojet Engineering's name (at the request of the United States Army and Navy) and portions of the contracts were subcontracted to General Tire, General Tire played a significant management role in administering these contracts. In the written agreement dated July 14, 1944 and approved by the Aerojet Engineering board on July 26, 1944, General Tire was given the right to use Aerojet Engineering's personnel but under General Tire's own management. The agreement also refers to the 50% net profits that General Tire would receive from the contracts as a management fee for managing these contracts. Finally, the agreement approved on July 26, 1944 also gave General Tire an option to purchase an ownership interest in Aerojet Engineering within six months.

C. Between July and December 1944, as a result of General Tire's significant financial and managerial role, the JATO rocket production project became a profitable business. The business generated profits and did not suffer losses during this period. In December 1944 General Tire, pursuant to the option it had acquired, submitted a proposal to purchase 50% of the stock of Aerojet Engineering. At a meeting held on December 8, 1944, Aerojet Engineering's shareholders accepted this proposal. The transaction was consummated in or about February 1945. The production of JATO rockets continued profitably after February 1945.

D. Commencing in 1943 and continuing for many years thereafter, disposal of hazardous substances and solid wastes occurred at the Hollyvale Property in connection with the JATO rocket project. EPA restates and incorporates by reference all of the findings of fact set forth in Paragraph 5 of this Order. Between July 1944 and at least February 1945, General Tire, through the extensive managerial and financial assistance that it provided in connection with its joint venture with Aerojet Engineering, acted as an operator of the facility at the Hollyvale Property. GenCorp, as the successor-in-interest to General Tire, has responsibility as an operator of a facility at the time of disposal of hazardous substances and solid wastes.

7.A. Respondent Azusa Gas Systems (formerly known as Azusa Land Reclamation Co. and hereinafter referred to as "Respondent Azusa Gas") operated, directly or through its predecessors-in-interest, a landfill at 1201 West Gladstone Street in Azusa, California ("the Gladstone Street property") in mined areas of a sand and gravel quarry. Operations began in approximately 1974. Reports, including the 1979 Eckhardt Survey, indicate that, in addition to ordinary household and commercial refuse, the landfill received acids, bases, unspecified organic compounds, resins, scrubber residuals, heavy metals, waste oils and waste oil sludges. Landfilling at the Gladstone Street property began in

approximately 1952 (prior to Azusa Gas' operations), before liners, containment structures, leachate collection or removal systems, or leak detection systems were commonly used or required. Accordingly, filled and partially-filled portions of the landfill have none of those protective features. The recovery of vapor from within the landfill began in approximately 1978. Between 1978 and 1985, up to 1,500 to 2,000 gallons per day of condensate from the vapor recovery system were discharged into the landfill. The discharge ceased after the Los Angeles Regional Water Quality Control Board (LARWQCB) issued Clean Up and Abatement Order No. 85-2.

B. In subsurface investigations at the Gladstone Street property, PCE, TCE, trans-1,2-DCE, DCA, methylene chloride (MC), 1,2-dichlorobenzene (1,2-DCB), 1,4-dichlorobenzene (1,4-DCB), monochlorobenzene (CBN), methyl ethyl ketone (MEK), acetone, methylisobutylketone (MIBK), ethanol, propanol, butanol, butanone, tetrahydrofuran, toluene, ethylbenzene, and xylenes have been detected in soil, soil vapor, condensate (liquid samples condensed from the soil vapor), refuse, and/or groundwater. In 1985, analysis of vapor removed from the landfill through the vapor recovery system detected PCE at 2,000 parts per billion by volume (ppbv); TCE at 2,000 ppbv; trans-1,2-DCE at 3,000 ppbv; MC at 4,000 ppbv; and DCA at 500 ppbv. (In units of micrograms per liter, the concentrations are approximately 14, 11, 12, 14, and 2 ug/l respectively.) Benzene, toluene, and ethylbenzene were also detected.

C. At least eight groundwater monitoring wells have been installed on or near the Gladstone Street property. Four of those groundwater wells are upgradient of the property and four are downgradient of the property. Contaminants 1,4-DCB, 1,2-DCB, CBN, PCE, TCE, 1,1,1-TCA, and DCE have all been detected in the downgradient wells at concentrations greatly exceeding Maximum Contaminant Levels. In addition, 1,4-dioxane, perchlorate and

NDMA have been detected in groundwater at concentrations up to 99 ug/l, 430 ug/l, and 6.0 ug/l respectively.

8.A. Respondent Allegiance Healthcare Corporation ("Respondent Allegiance") and its predecessors-in-interest, including but not limited to Baxter Healthcare Corporation, owned the property located at 4401 Foxdale Avenue in Irwindale, California ("the Foxdale Avenue property") from approximately 1961 to approximately 1999. Baxter Healthcare Corporation and its predecessors-in-interest manufactured plastics, operated a chemical laboratory, and carried out research and development at the Foxdale Avenue property from approximately 1961 to approximately 1993.

B. Chemical use at the facility included Freon, MC, PCE, and phthalates. In 1988, the facility reported the use of 3,025 gallons per year of Freon, over 1,000 gallons per year of MC, and approximately 60 gallons per year of PCE. Several industrial waste clarifiers were in use at that time. In addition, PCE, chloroform, Freon, and cis-1,2-DCE were detected in wastewater and sludge.

C. In subsurface investigations. PCE, TCE, cis-1,2-DCE, Freon, chloroform, phthalates, and toluene have been detected in soil vapor and/or soil at the Foxdale Avenue property. In 1990, shallow soil vapor samples were collected at eight locations near the laboratory clarifier. PCE was detected at up to 50 ug/l near the laboratory clarifier. Freon, and trace levels of chloroform and TCE, were also detected. PCE was also detected at 110 ug/l at 16 feet bgs near the sanitary sewer. In 1990, soil samples were collected near the laboratory clarifier. In one boring, PCE was detected in soil at 17 ug/kg at two and one-half feet bgs and at 120 ug/kg at six and one-half feet bgs. Toluene and phthalates were also detected. From 1993 through 1996, several soil vapor wells were installed with permanent sampling probes. In vapor wells installed near the laboratory clarifier, PCE was

detected at up to 78, 61, 62, 2, 3, and 4 ug/l at 20, 40, 60, 90, 120, and 150 feet bgs respectively. In vapor wells installed near the sanitary sewer clarifier, PCE was detected at up to 56, 54, 33, 25, and 11 ug/l at 20, 40, 60, 120, and 150 feet bgs respectively. PCE was not detected at 90 feet bgs. In 1993, shallow soil vapor samples were collected at an additional ten locations near the sanitary sewer. PCE was detected at up to 14.7 ug/l.

D. In 1997, three groundwater monitoring wells were installed. In two of six sampling rounds, PCE and TCE were detected at up to 2.2 ug/l.

9.A. Respondent Azusa Pipe and Tube Bending ("Respondent Azusa Pipe and Tube") has operated a facility at 766 N. Todd Avenue in Azusa, California ("the N. Todd Avenue property") since 1953. The facility bends pipe and tube for commercial and aircraft use. Chemical use at the facility has included PCE and TCE. Between 1966 and 1988, in the 15 years for which information was provided, Azusa Pipe and Tube Bending reported the use of 54 to 605 gallons per year of PCE. It also reported the use of 55 gallons of TCE in 1969 and 1970. Respondent Azusa Pipe and Tube Bending reported that from 1969 until approximately 1974, solvents were stored in a 250 gallon above-ground tank, and used in a vapor degreaser located in a "special concrete sump."

B. In subsurface investigations, PCE and TCE have been detected in soil and/or soil vapor. In December 1990, three soil samples were collected from two test pits near the solvent storage tank and degreaser sump. PCE was detected at up to 104,000 ug/kg; TCE was detected at up to 49,000 ug/kg. In January 1994, shallow soil vapor samples were collected at 19 locations. PCE was detected at up to 165 ug/l near the tank and degreasing area, and at lesser concentrations at 17 of the remaining locations. In August 1994, resampling at seven additional locations largely confirmed previous results. PCE was

measured at 58 to 253 ug/l. In September and October 1994, a 100 foot deep vapor well was installed with sampling probes at 10, 20, 30, 40, 50, and 94 feet bgs. In one of two sampling events, PCE was detected at 503, 832, 204, 12, 510, and 273 ug/l respectively.

10.A. Fairchild Holding Co. (formerly known as Fairchild Industries and hereafter referred to as "Respondent Fairchild") operated a facility at 601 Vincent Avenue in Azusa, California ("the Vincent Avenue property") from approximately 1965 to 1968. Respondent Fairchild also owned the property from approximately 1965 until 1987. Chemical use at the facility included PCE from 1967 through 1984 and 1,1,1-TCA beginning in the mid-1980's. Average PCE use between 1979 and 1983 was reported to be approximately 2,000 gallons per year. In 1980, 1,1,1-TCA use was reported to be approximately 800 gallons per year. In 1987, 1,1,1-TCA use was reported to be 400-500 gallons per year. Solvents have been used in an onsite vapor degreaser on the Vincent Avenue property.

B. In subsurface investigations, PCE, TCE, 1,1,1-TCA, and other compounds have been detected in soil and soil vapor. In 1990, soil samples were collected at 21 locations at one to ten feet bgs. 1,1,1-TCA was detected at 2,100 ug/kg at one foot bgs and 40 ug/kg at three feet bgs. PCE was detected at 120 ug/kg at one foot bgs and 20 ug/kg at three feet bgs. 1,1-DCE was detected at 250 ug/kg at one foot bgs. TCE was detected at 40 ug/kg at one foot bgs. In 1991, shallow soil vapor samples were collected at 58 locations. 1,1,1-TCA was detected at up to 3,000 and 11,000 ug/l at five and 20 feet bgs respectively. PCE was detected at up to 500 and 460 ug/l at five and 20 feet bgs respectively. TCE was detected at up to 300 and 400 ug/l at five and 20 feet bgs respectively. In 1992, two vapor wells were installed with permanent vapor probes, and sampled twice. The patterns of contamination were similar in the two sampling events. In one of the two vapor wells, in July 1992, 1,1,1-TCA

was detected in soil vapor at 6, 21, 230, 147, and 63 ug/l at 5, 11, 47, 103, and 143 feet bgs respectively. PCE was detected at 25, 54, 21, 14, and 10 at the same five depths respectively. TCE and DCA, and a number of other chemicals were also detected. In the second vapor well, in July 1992, 1,1,1-TCA was detected at 133, 188, 250, 46, and 42 ug/l at 6, 11, 48, 103, and 125 feet bgs respectively. PCE was detected at 22, 51, 36, 9, and 3 ug/l at the same five depths respectively.

C. In 1994, one groundwater monitoring well was installed. In eight samples collected between August 1994 and February 1999, PCE was detected at up to 21 ug/l, TCE was detected at up to 10 ug/l, and cis-1,2-DCE was detected at up to 200 ug/l. Chloroethane, dichlorodiflouromethane, 1,1-DCA, 1,2-DCA, 1,1-DCE, trans-1,2-DCE, 1,2-dichloropropane, trichloroflouromethane (TCFM), vinyl chloride, benzene, chlorobenzene, 1,2-dichlorobenzene, 1,4-dichlorobenzene, acetone, sec-butylbenzene, 2-chlorovinyl ether, isopropylbenzene, and napthalene were also detected.

11.A. Respondent Hartwell Corporation ("Respondent Hartwell") operated a facility at 701 W. Foothill Boulevard in Azusa, California ("the 701 W. Foothill property") from approximately 1964 to 1986, manufacturing a product line known as "quick release pins" for the aerospace industry. Respondent also owned the 701 W. Foothill property from approximately 1967 to 1988. Chemical use at the facility included PCE and 1,1,1-TCA. Respondent Hartwell operated a vapor degreaser at the 701 W. Foothill property.

B. In subsurface investigations, PCE, TCE, 1,1,1-TCA, 1,1-DCE and other chemicals have been detected in soil, soil vapor, and/or groundwater at the 701 W. Foothill property. In 1991 and 1993, soil samples were collected. PCE was detected at 560 ug/kg at two feet bgs and at 22 ug/kg at 110 feet bgs. In 1992, shallow soil vapor samples were collected at approximately 30

locations on the property. PCE was detected at most locations sampled at up to 1,242 ug/l. 1,1,1-TCA was detected at up to 5 ug/l and 1,1-DCE was detected at up to 18 ug/l. In 1992, a deep vapor probe well was installed with five permanent vapor sampling probes. In the first sampling event, in November 1992, PCE was detected at 537, 659, 990, 164, and 10 ug/l at 10, 20, 40, 60, and 80 feet bgs respectively. In the second sampling event, in September 1994, PCE was detected at 96, 125, 197, 219, and 138 ug/l at the same five depths respectively. 1,1,1-TCA, TCE, and 1,1-DCE were also detected at lesser concentrations. In the third sampling event, in September 1999, PCE was detected at 38, 116, 117, and 106 ug/l at 20, 40, 60, and 80 feet bgs respectively. PCE was not detected at 10 feet bgs. 1,1,1-TCA, TCE, and 1,1-DCE were also detected at lesser concentrations. A second set of soil gas probes were installed at the same time the groundwater monitoring well was installed, and sampled in 1993, 1994, and 1999.

C. In 1993, one groundwater monitoring well was installed. In multiple sampling rounds, PCE was detected at up to 210 ug/l. TCE, 1,1,1-TCA, 1,1,2-TCA, and 1,2-DCE were also detected.

12.A. Respondent Huffy Corporation ("Respondent Huffy") operated a facility at 1120 W. Foothill Boulevard in Azusa, California ("the 1120 W. Foothill property") from approximately 1959 to approximately 1982, manufacturing and assembling bicycles. Respondent Huffy owned the facility from approximately 1959 until approximately 1983. Chemical use at the facility has included PCE, TCE, and 1,1,1-TCA. Respondent Huffy used approximately 2,000 gallons per year of TCE from approximately 1960 until at least 1968 and possibly until 1975. Respondent Huffy used an average of approximately 4,000 gallons per year of PCE from approximately 1968 to 1978. Respondent Huffy used the solvents in a vapor degreaser.

B. In subsurface investigations PCE, TCE, 1,1,1-TCA, and other chemicals have been detected in soil, soil vapor, and/or groundwater at the 1120 W. Foothill property. In 1993, soil samples were collected from one boring and from four trenches. PCE was detected at 100 ug/kg at 2.5 feet bgs, 85 ug/kg at 1.7 feet bgs, and 9 ug/kg at 3 feet bgs. TCE was detected at 8 ug/kg at 4.4 feet bgs. In 1991 and 1993, shallow soil vapor samples were collected at approximately 70 locations. PCE was detected at up to 2,100 ug/l near the former vapor degreaser, and at hundreds of ug/l at numerous other locations. TCE and 1,1,1-TCA were also detected. In 1993, two deep vapor wells were installed with a total of six permanent vapor sampling probes. In one of three sampling events, PCE was detected at 1,500, 5,700, 1,900, 330, 630, and 690 ug/l at approximately 25, 50, 100, 175, 250, and 291 feet bgs respectively. TCE and 1,1,1-TCA were also detected at or below 100 feet bgs. In February 2000, PCE was detected at 6,300, 13,000, 22,000, 21,000, 14,000, and 6,400 ug/l at the five depths respectively. TCE was also detected.

C. In 1994, one groundwater monitoring well was installed at the 1120 W. Foothill property. In multiple sampling events between 1994 and 1996, PCE was detected at up to 8,000 ug/l, and TCE was detected at up to 5,800 ug/l. These concentrations far exceed contaminant levels in upgradient wells. Other chemicals, including 1,1,1-TCA, 1,1-DCE, cis-1,2-DCE, carbon tetrachloride, chloroform, and methylene chloride, were also detected. In a more recent sampling event, in March 1999, perchlorate was detected at 16 ug/l.

13. A. Respondent J.H. Mitchell and Sons Distributors, Inc. ("Respondent Mitchell") has operated a facility at 14515 Joanbridge Street, in Baldwin Park, California ("the Joanbridge Street property") since approximately 1960, distributing gasoline, industrial and automotive oils, petroleum products, and solvents. Products (and reported 1987 sales in gallons) include: 1,1,1-TCA (25,831); PCE (6,195); MC (7,077); acetone (29,689);

MEK (26,949); MIBK (216); toluene (16,635); and xylenes (13,298). TCE purchases of 2,675 and 1,800 gallons were also reported for 1978 and 1979 respectively.

B. In subsurface investigations at the Joanbridge Street property, PCE, TCE, 1,1,1-TCA, 1,2-DCE, 1,2-DCA, 1,1-DCE, TCFM, and numerous non-chlorinated hydrocarbons have been detected in soil, soil vapor, and/or groundwater. In 1987, 36 soil samples were collected. PCE was detected at 140 ug/kg at 25 feet bgs and 500 ug/kg at 45 feet bgs. Benzene, toluene, ethylbenzene, and xylenes were also detected at 170, 14,000, 76,900, and 91,700 ug/kg respectively, all at 45 feet bgs. In 1992, soil samples were collected from multiple borings. PCE was detected at 330 ug/kg at one foot bgs. TCE was detected at 9 ug/kg at one foot bgs. Toluene, ethylbenzene, xylenes, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, ethylmethylbenzene, and n-butylbenzene were detected at thousands to hundreds of thousands of ug/kg at 25, 40, and/or 45 feet bgs. In 1992, two deep vapor wells were installed with a total of twelve permanent vapor sampling probes. In the shallower well, in the first sampling event, PCE was detected at 2,5,11,5, and 12 ug/l at 25, 40, 60, 80, and 100 feet bgs respectively. In the deeper well, PCE was detected at 31, 0.2, 8, and 43 ug/l at 80, 100, 120, and 150 feet bgs respectively.

C. In 1993, one groundwater monitoring well was installed. In nine sampling events, PCE was detected at up to 30 ug/l and 1,2-DCA was detected at up to 25 ug/l. A number of non-chlorinated compounds were also detected, including benzene at up to 95 ug/l; xylenes at up to 4,600 ug/l; ethylbenzene at up to 450 ug/l; and toluene at up to 2,400 ug/l. N-butylbenzene, isopropylbenzene, tert-butylbenzene, napthalene, n-propylbenzene, ethylene dibromide, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene were also detected.

14.A. Respondent Oil and Solvent Process Company ("Respondent OSCO") has operated and owned an approximately seven acre facility at 1704 West First Street in Azusa, California ("the 1704 West First Street property") since approximately 1954, recycling and distributing used solvents and repackaging and distributing virgin solvents. Chemicals recycled and/or distributed at the facility have included 1,1,1-TCA, PCE, TCE, MC, 1,2-DCA, and 1,1-DCE. For the period 1978-1980, Respondent OSCO reported TCE sales of 20,000 to 24,000 gallons per year. In 1980, Respondent OSCO reported that 6 million gallons of solvent were recycled. Respondent OSCO also reported that it has been aware that throughout its history of operations there have been instances of spills and releases in the production, shipping, loading, and drum storage areas. During the majority of the years of operation, large areas of the facility have been unpaved. Some areas that were paved, such as the storage pad, lacked structures to contain a spill. Certain of Respondent OSCO's employees recall a spill of approximately 1,000 gallons in the 1970's. In 1980, stormwater runoff collected in the unpaved southern portion of the facility. After TCE was detected in the ponded water, the LARWQCB issued a Clean Up and Abatement Order to Respondent OSCO, leading to the cleanup of approximately 8 to 10 cubic yards of contaminated soil.

B. In subsurface investigations at the 1704 West First Street property, PCE, TCE, 1,1,1-TCA, 1,1-DCA, MC, and other chemicals have been detected in soil, soil vapor, and/or groundwater. In 1987, 21 soil samples were collected in the drum storage area at depths of two to five feet bgs. At 2.5 feet bgs, PCE was detected in 11 of 21 samples at up to 38,000 ug/kg. The chemical 1,1,1-TCA was detected in six of 21 samples at up to 4,000 ug/kg at the same depth. In 1989, as part of its RCRA facility investigation, shallow soil vapor samples were collected at 77 locations throughout the facility. PCE was detected at multiple locations with peak concentrations of 5,100, 2,200, and 1,600 ug/l. TCE was detected at multiple locations with peak

concentrations of 220, 150, 120, and 43 ug/l. In 1991, nine borings were drilled at the 1704 West First property and from one to three permanent vapor sampling probes were installed in each boring. The deep soil vapor wells were sampled in 1991 and again in 1993. PCE was detected in all probes from all wells in both sampling events. The maximum detected PCE concentration was 16,000 ug/l. Maximum concentrations of other contaminants at depth included 2,800 ug/l for 1,1-DCE at 136 feet bgs and 1,400 ug/l for 1,1,1-TCA at 190 feet bgs respectively.

In approximately 1997, Respondent OSCO installed five additional vapor monitoring wells and seven vapor remediation wells. In these wells, PCE, TCE, 1,1,1-TCA, 1,1-DCE, cis-1,2-DCE, and other chemicals have been detected at high concentrations at multiple depths. In one of the vapor monitoring wells, in samples collected in October and November 1997, PCE was detected at 850, 1,200, 2,700, 5,000, 11,000, 310, 8,200, 5,000, 5,100, 1,500, 1,200, 58, 140, and 83 ug/l at 18, 38, 58, 78, 98, 118, 138, 158, 178, 198, 218, 238, 258, and 269 bgs respectively. In the same well at the same 14 depths sampled in October and November 1997, 1,1,1-TCA was detected at 150, 470, 710, 640, 530, 20, 320, 280, 290, 180, 220, 77, 260, and 270 ug/l.

C. In 1992, five groundwater monitoring wells were installed at the 1704 West First Street property. Groundwater quality data from Respondent OSCO's wells are available from August 1992 through August 1999. Contaminants detected in downgradient wells (MW-03, MW-04, and MW-05) include PCE (up to 2,200 ug/l), TCE (up to 1,900 ug/l), 1,1,1-TCA (up to 900 ug/l), 1,1-DCE (up to 360 ug/l), 1,2-DCA (up to 410 ug/l), and 1,4-dioxane (up to 69 ug/l).

D. In 1998 and 1999, Respondent OSCO operated a soil vapor extraction system to remove VOCs from the subsurface beneath the facility. In February 1999, after 10 months of operation,

Respondent OSCO's consultant estimated that 32,000 pounds of VOCs had been removed from the subsurface.

15.A. Respondent Phaostron Instruments & Electronic Company ("Respondent Phaostron") has operated a facility at 717 North Coney Avenue in Azusa, California ("the North Coney Avenue property") since 1985, manufacturing meters and other instruments for U.S. military and aircraft applications. Respondent Phaostron has reported using approximately 400 to 600 gallons per year of PCE through 1989. Phaostron has reported three spills in 1988 and 1990 of less than one-half gallon of PCE and minor spillage of PCE at the storage tank spigot. Respondent Philip Morris Incorporated ("Respondent Philip Morris"), through its predecessor-in-interest U.S. Relay Company and subsequently through the U.S. Relay Electronics Division of Respondent Philip Morris, operated a facility at the North Coney Avenue property from approximately 1958 to approximately September 1960, manufacturing electronic and power relays and electronic accessories. Chlorinated solvents were used for degreasing and parts cleaning.

B. In subsurface investigations at the North Coney Avenue property, PCE, CTC, TCE, 1,1,1-TCA, cis-1,2-DCE, and other chemicals have been detected in soil and/or soil vapor. In 1990, four soil samples were collected at two locations. In one location PCE was detected at 21,000 ug/kg at one foot bgs and 17,000 at three feet bgs. At the second location PCE was detected at 18,000 ug/kg at one foot bgs and 13,000 ug/kg at four feet bgs. In 1991, two permanent vapor sampling probes were installed in the annulus of a groundwater monitoring well. In four sampling events, PCE was detected at a maximum concentration of 870 ug/l at an estimated depth of 100 feet bgs. In 1992, shallow soil vapor samples were collected at 15 locations. PCE was detected at up to 10,900 ug/l near the former degreasing area, and at thousands of ug/l at other locations. Cis-1,2-DCE was detected at up to 1,020 ug/l. TCE was detected at up to 340

ug/l. In 1995, a deep vapor well was installed with sampling probes at 20, 40, 100, 120, 140, 160, 180, and 200 feet bgs. In one of three sampling events, PCE was detected at 90, 52, 27, 44, and 54 ug/l at 20, 140, 160, 180, and 200 feet bgs respectively. TCE was detected at 7, 57, 38, 49, and 126 ug/l at the five depths respectively.

16.A. Respondent Reichhold Chemicals, Inc. ("Respondent Reichhold") has owned and operated a facility at 237 S. Motor Avenue in Azusa, California ("the 237 S. Motor Avenue property") since at least 1949, manufacturing resins and other products. Chemical use at the facility has included TCE, 1,1,1-TCA, and Freon, primarily to clean process tanks. From approximately 1968 to 1975, TCE use was approximately 2,900 gallons per year. In 1980, 1,1,1-TCA use was approximately 3,000 gallons per year. Average Freon use was approximately 30,000 gallons per year. TCE, 1,1,1-TCA, PCE, Freon, and chloroform have been detected in wastewater in samples collected between 1976 and 1990.

B. Local records contain indications of past releases of hazardous substances. In 1949 it was reported that 6,000 gallons per year of liquid waste, comprising tank washdowns and floor washings, were pumped to a tank for disposal at sea. It was also reported that steel drums were cleaned and discharged to an open ditch south of the plant that flowed to a concrete-lined sump and then to a seepage pit. According to another local inspection report, surface water runoff and also process waters, including resin tank washings, were allowed to flow to the south end of the plant and remain in a low area which was at one point unpaved. According to this report, it was at one time the practice of Respondent Reichhold to let such runoff, which may have included certain chemical products and solvents, to absorb into the soil. In 1958, a local inspector noted a small leak from process equipment. A xylene spill was documented in 1983. An explosion involving styrene occurred in 1984.

C. In subsurface investigations at the 237 S. Motor Avenue property, PCE, TCE, 1,1,1-TCA, 1,1-DCA, 1,1-DCE, and other chemicals have been detected in the soil vapor. In 1991, 60 shallow soil vapor samples were collected. TCE was detected at up to 300 ug/l. 1,1,1-TCA was detected at up to 2,000 ug/l. PCE was detected at up to 11 ug/l, and 1,1-DCE was detected at up to 160 ug/l. In 1994, an additional 50 soil vapor samples were collected. Significant concentrations of TCE, 1,1,1-TCA, 1,1-DCE, and 1,1-DCA were detected. In 1996 and 1997, additional soil gas samples were collected and analyzed. In samples collected in February 1996 at one of the soil vapor monitoring wells (SVMW #6), TCE was detected at 214, 81, and 77 ug/l at 15, 25, and 40 feet bgs. In more recent samples collected in April 1997 from the same well at the same three depths, TCE concentrations were 1, 79, and 128 ug/l respectively and 1,1,1-TCA was detected at 90, 58, and 122 ug/l respectively.

17.A. Respondent Rubber/Urethanes, Inc. ("Respondent Rubber/Urethanes") operated a facility at 968 W. Foothill Blvd. in Azusa, California ("the 968 W. Foothill property") from 1969 to approximately 1996, manufacturing computer rollers and other precision metal-to-rubber bonded components. Chemical use at the facility included PCE, TCE, 1,1,1-TCA, MC, Freon-113, and MEK. In 1983 and in 1988, Respondent Rubber/Urethanes reported solvent usage as 17,000 pounds per year MC (approximately 1,530 gallons), 920 pounds per year PCE (approximately 67 gallons), 350 gallons per year TCE, 23 gallons per year Freon-113, and 10 gallons per year 1,1,1-TCA. A vapor degreaser was in use from at least 1976.

B. In subsurface investigations at the 968 W. Foothill property, PCE, TCE, 1,1,1-TCA, cis-1,2-DCE, trans-1,2-DCE, 1,-DCE, Freon-113, and MC have been detected in the soil, soil vapor, and/or groundwater. In 1990, shallow soil vapor samples were collected at 23 locations. PCE was detected at up to 9,800 ug/l; TCE was detected at up to 1,400 ug/l; MC was detected at up to 6,700 ug/l; and 1,1,1-TCA was detected up to 13 ug/l. In

1990, soil samples were collected at 1,3,4, and 10 feet bgs. PCE was detected at up to 60,000 ug/kg at 10 feet bgs; TCE was detected at up to 3,100 ug/kg at 10 feet bgs; and 1,1,1-TCA was detected at up to 27 ug/kg at one foot bgs. In 1992, three deep vapor wells were installed. Each well had permanent vapor sampling probes installed at four depths. In one of the vapor wells, sampled in September 1992, PCE was detected at 2,402, 2,902, 1,560, and 1,641 ug/l at 25, 60, 100, and 155 feet bgs respectively. TCE was detected at 1,293, 1,462, 576, and 617 at the four depths respectively. Cis-1,2-DCE was detected at 176, 44, 419 and 53 ug/l at the four depths respectively. Moderate to high concentrations of PCE, TCE, and/or cis-1,2-DCE were also detected in three other vapor wells. Additional soil vapor samples were collected and analyzed in May 1994 and June 1994, confirming moderate to high levels of contamination.

C. In 1994, one groundwater monitoring well was installed. In one round of sampling in May 1994, TCE was detected at 642 ug/l; PCE was detected at 187 ug/l; and cis-1,2-DCE was detected at 118 ug/l.

18.A. Respondent Screwmatic, Inc. ("Respondent Screwmatic") has operated a facility at 925 W. First Street in Azusa, California ("the 925 W. First Street facility") since 1964 for the manufacture of precision metal parts. Chemical use at the facility has included 1,1,1-TCA for parts cleaning. Reported historical use of 1,1,1-TCA is approximately 2,400 gallons per year. Analysis of wastewater and sludge confirms the use of 1,1,1-TCA and toluene. A vapor degreaser and above-ground storage tank have been in use at the facility.

B. In 1991, at the 925 W. First Street facility, two soil samples were collected from a borehole near the vapor degreaser. In one sample at 0.5 foot bgs, 1,1,1-TCA was detected at 340 ug/kg; TCE was detected at 250 ug/kg; PCE was detected at 190 ug/kg; 1,1-DCE was detected at 57 ug/kg; and 1,1-DCA was detected

at 6.9 ug/kg. In a second sample collected at 3.5 feet bgs, PCE was detected at 170 ug/kg and 1,1,1-TCA was detected at 7 ug/kg. In 1992, shallow soil vapor samples were collected at 15 locations. 1,1,1-TCA was detected at up to 1,270 ug/kg, with peak levels at the solvent storage tank. PCE, TCE, and 1,1-DCE were also detected. In 1994, a deep vapor well was installed with permanent vapor sampling probes. In samples collected in November 1994, 1,1,1-TCA was detected at 339, 621, 5,038, 8,332, 9,863, 39,482, and 46,705 ug/l at 9, 24, 49, 74, 99, 124, and 144 feet bgs respectively. The chemical 1,1-DCE was detected at 94, 72, 284, 233, 396, 655, and 774 ug/l at the seven depths respectively. In a second round of samples collected in at the same seven depths in April 1998, 1,1,1-TCA was detected at 1,933, 2,885, 7,587, 13,000, 21,853, 3,460, and 36,332 ug/l respectively; and 1,1-DCE was detected at 187, 310, 527, 585, 744, 313, 1,131 ug/l respectively. TCE, 1,2-DCA, 1,1,2-trichloroethane (1,1,2-TCA), 1,1-DCA, toluene, chloroform, and methylene chloride have also been detected. Additional vapor samples, showing significant concentrations of 1,1,1-TCA, 1,1-DCE, PCE, TCE, 1,2-DCA, and 1,1,2-TCA were collected in January, February, and March 2000.

C. A groundwater monitoring well has not been installed at the 925 W. First Street facility but a well installed at the Azusa Gas landfill in late 1993, known as MW10, is located approximately 1,000 feet downgradient of the facility. At MW10, 1,1,1-TCA and 1,1-DCE have been detected at over 2,500 ug/l; TCE has been detected at 740 ug/l; and CTC has been detected at 220 ug/l. Benzene, 1,1-DCA, 1,2-DCA, 1,1,2-TCA, and PCE have also been detected.

19.A. Respondent Valspar Corporation ("Respondent Valspar") has owned and operated a facility at 1004 W. 10th Street in Azusa, California ("the W. 10th Street property") since approximately 1986. Respondent Mobil Oil Corporation ("Respondent Mobil") owned and operated a facility at the W. 10th Street property from

approximately 1963 to approximately 1984. Respondent Lockheed Martin Corporation ("Respondent Lockheed"), through its predecessor-in-interest Martin Marietta Corporation, owned and operated a facility at the W. 10th Street property from approximately 1955 to approximately 1963. Operations at the W. 10th Street property have included the production of vinyl resins in adhesives, coatings, linings for tinplate beverage containers, the manufacture of printing inks, and the manufacture and blending of paint. Chemical use at the facility has included TCE, MC, xylenes, toluene, ethylbenzene, and MEK. In 1987, Respondent Valspar reported the purchase of approximately 113,000 gallons of xylenes, approximately 6,500 gallons of toluene, approximately 220 gallons of ethylbenzene, and less than one pound per day of TCE. Respondent Mobil reported the use of 100-500 gallons per year of MC between 1975 and 1979 to clean portable tanks. Analysis of a wastewater sludge sample in 1981 confirmed the presence of TCE and 1,1,1-TCA. Indications of past releases of hazardous substances are apparent in Los Angeles County records. The reports refer to evidence of prior spills at permanent rail tank cars, rail docks, and portable tank cleaning areas. The records also report a violation of the California Health and Safety Code because the truck turnaround area for the receiving area collected 20,000 to 30,000 gallons of rainwater during storms, and numerous spills of solvents and pigments washed into the area. Spillage onto the ground from tank cars used as storage was also observed. The records indicate that some stored materials in spillage areas were highly hazardous. In addition, in 1981, Respondent Mobil reported a spill of 1,500 gallons of non-chlorinated solvents, with partial recovery.

B. In subsurface investigations at the W. 10th Street property, PCE, TCE, 1,1,1-TCA, cis-1,2-DCE, 1,2-DCA, 1,1-DCA, 1,1-DCE, xylene, benzene, toluene, and other chemicals have been detected in soil, soil vapor, and/or groundwater. In 1986, soil samples were collected during the removal of five underground storage tanks. PCE was detected in one sample at 150 ug/kg. In

1991, shallow soil vapor samples were collected at 29 locations. PCE was detected at relatively uniform concentrations between one and 8.7 ug/l. 1,1,1-TCA was detected at up to 3.9 ug/l. In 1994, three deep vapor wells were installed with permanent sampling probes. PCE was detected at 3.1 and 1.2 ug/l at 18 feet bgs and 88 feet bgs respectively. Cis-1,2 DCE was detected at 3.4 and 1.8 ug/l at 41.5 feet bgs and 65 feet bgs respectively.

C. In 1990, three groundwater monitoring wells were installed. In the two downgradient wells, in more than twenty sampling events, PCE has been detected at up to 42 ug/l. TCE has been detected at up to 30 ug/l. Cis-1,2-DCE has been detected at up to 210 ug/l. Very high levels of non-chlorinated chemicals have also been detected, including a sheen of petroleum product observed floating at the top of the water table in May 1991. Benzene has been detected at up to 54 ug/l; toluene at up to 37,000 ug/l; and xylenes at up to 120,000 ug/l. The chemicals 1,1-DCA, 1,2-DCA, 1,1-DCE, methylene chloride, 1,1,1-TCA, cis-1,3-dichloropropene, bromodichloromethane, bromoform, chlorobenzene, chloroethane, chloroform, dibromochloroethane, and dibromochloromethane have also been detected. A fourth groundwater well was installed in 1994.

20.A. Respondent White and White Properties ("Respondent White and White"), directly or through its predecessor in interest White, White, White, and White (whose general partners were Donald White and John White), has owned a facility at 145 S. Irwindale Avenue in Azusa, California ("the 145 S. Irwindale Avenue property"), since approximately 1963, and has owned a facility at 204 S. Motor Avenue in Azusa, California ("the 204 S. Motor Avenue property") since approximately 1992. Respondent White and White is also the successor-in-interest to Whico Machine Co., Whico, and RPM Merit, which operated at the 145 S. Irwindale property and the 204 S. Motor property at various times between approximately 1963 and approximately 1995. Chemical use

at the two facilities has included TCE, PCE, 1,1,1-TCA, and other chemicals.

B. In subsurface investigations, PCE, TCE, 1,1,1-TCA, 1,1-DCA, 1,1-DCE and other chemicals have been detected in soil, soil vapor, and/or groundwater. In 1990, soil samples were collected at several locations at the 145 S. Irwindale Avenue property. PCE was detected adjacent to the wastewater clarifier influent lines at 490 ug/kg at 1.5 feet bgs, 5900 ug/kg at 4 feet bgs, and 860 ug/kg at 4.5 feet bgs. 1,1,1-TCA was detected at 700, 3500, and 750 ug/kg at the same three depths respectively. In 1991, shallow soil vapor samples were collected at 39 locations at the 145 S. Irwindale property. 1,1,1-TCA was detected at multiple locations in the thousands of ug/l, at up to 12,800 ug/l. PCE was detected at multiple locations in the hundreds of ug/l, at up to 825 ug/l. TCE and other chemicals were also detected. In 1992 and 1994, vapor wells were installed with ten permanent vapor sampling probes. In several sampling events, PCE was detected at concentrations up to 213 ug/l at various depths up to 100 feet bgs. 1,1,1-TCA was detected at concentrations up to 2246 ug/l at various depths up to 100 feet bgs.

C. In 1991, soil samples were collected from two borings at the 204 S. Motor Avenue property. PCE was detected in 3 of 6 samples, at 15 ug/kg at one foot bgs, at 65 ug/kg at 5 feet bgs, and at 20 ug/kg at one foot bgs. In 1991, shallow soil vapor samples were collected at 17 locations at the 204 S. Motor Avenue property. PCE was detected at 17 of 17 locations at 100 to 470 ug/l. 1,1,1-TCA was detected at 17 of 17 locations at 40 to 500 ug/l. In 1992, a vapor well was installed with four permanent vapor sampling probes at the 204 S. Motor Avenue property. In samples collected in August 1992, October 1992, November 1992, March 1995, and June 1997, extensive PCE, 1,1-DCE, and 1,1,1-TCA contamination was measured. In August 1992, PCE was detected at 226, 568, 849, and 1141 ug/l at 10, 20, 30, and 40 feet bgs respectively.

D. In 1996, a groundwater monitoring well with nested soil gas probes was installed and sampled at the 204 S. Motor Avenue property. In soil vapor samples collected in March 1996, PCE was detected at 20, 58, 134, 150, 385, 603, 755, 630, 706, 1,070, 2,140, and 964 ug/l at approximately 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, and 240 feet bgs respectively. The chemicals TCE, cis-1,2-DCE, trans-1,2-DCE and 1,1,1-TCA were also detected. Additional samples collected in April 1996, June 1997, and July 1997 also showed extensive PCE, TCE, 1,1,1-TCA, and 1,1-DCE contamination. In groundwater samples collected in February 1996, May 1996, and July 1997, PCE was detected at up to 340 ug/l; TCE was detected at up to 260 ug/l; 1,1-DCE was detected at up to 106 ug/l; and 1,1,1-TCA was detected at up to 45 ug/l. The chemicals 1,4-dioxane, perchlorate, CTC, 1,2-DCA, 1,1-DCA, bromodichloromethane, and chloroform were also detected in groundwater.

21.A. Respondent Wynn Oil ("Respondent Wynn") has owned and operated a facility at 1151 W. 5th Street in Azusa, California ("the 5th Street property") since approximately 1951 for the manufacture and distribution of petrochemical lubricants and additives for automotive and industrial use. Chemical use at the facility has included 1,1,1-TCA, PCE, TCE, 1,2-DCA, MC, xylene, and other chemicals. In 1985, Respondent was issued a notice of violation by Los Angeles County and subsequently removed approximately 120 cubic yards of contaminated soil.

B. In subsurface investigations, PCE, TCE, 1,1,1-TCA, cis-1,2-DCE, 1,1-DCA, 1,1-DCE, MC, benzene, toluene, xylenes, and other chemicals have been detected in soil, soil vapor, and/or groundwater. In 1988 and 1990, soil samples were collected at more than 40 locations and depths. At various locations PCE was detected at 35 ug/kg at one foot bgs, 8,000 ug/kg at three feet bgs, 100 ug/kg at six feet bgs, and 200 ug/kg at 10 feet bgs. MC was detected at 2,400 ug/kg at three feet bgs, at 4,200 ug/kg at six feet bgs, and at 4,200 ug/kg at 10 feet bgs. TCE, 1,1,1-TCA,

benzene, toluene, xylenes, and other chemicals were also detected. In 1991, shallow soil vapor samples were collected at 24 locations. 1,1,1-TCA was detected at 23 of 24 locations, at up to 80 ug/l. PCE was detected at 23 of 24 locations, at up to 70 ug/kg. TCE, 1,1-DCA, 1,1-DCE, cis-1,2-DCE, and other chemicals were also detected. In 1992, three deep vapor wells were installed, each with permanent vapor sampling probes at four depths. In vapor well VW-3, in the last of four sampling events completed in 1992 and 1993, PCE was detected at 16, 48, 5,100, and 1,450 ug/l at 25 feet, 75 feet, 125 feet, and 175 feet bgs respectively. In January and February 2000, the three vapor wells were resampled. In vapor well VW-3, in January 2000, PCE was detected at 100, 300, 21,000, and 9,500 ug/l at 25 feet, 75 feet, 125 feet, and 175 feet bgs respectively. TCE, 1,1-DCE, 1,1-DCA, 1,1,1-TCA and other chemicals were also detected.

C. In 1992, one groundwater monitoring well was installed. In eight quarterly sampling events, the following were detected: PCE up to 38,000 ug/l, TCE up to 7,840 ug/l, cis-1,2 DCE up to 2,630 ug/l, 1,2-DCA up to 490 ug/l, and 1,1-DCE up to 150 ug/l.

22. The respondents identified in Paragraphs 5 through 21 are referred to throughout this Order as "Respondents."

23. On October 15, 1984, pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, EPA placed the San Gabriel Valley Area 2 site (the Baldwin Park Operable Unit Area) on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B (49 Fed. Reg. 40320).

24. From approximately October 1984 to April 1993, EPA undertook a Remedial Investigation and Feasibility Study ("RI/FS") for the BPOU Area, pursuant to CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In a report dated April 2, 1993, EPA presented the results of the BPOU RI/FS.

25. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, EPA published notice of the completion of the FS and the proposed plan for remedial action on May 7, 1993, and provided opportunity for public comment on the proposed remedial action.

26. The decision by EPA on the interim remedial action to be implemented at the BPOU Area is embodied in an interim Record of Decision ("ROD"), executed on March 31, 1994, and supplemented by an Explanation of Significant Differences ("ESD") issued in May 1999, on which the State has given its concurrence. The ROD (Attachment 2) and the ESD (Attachment 3) are attached to this Order and are incorporated by reference. The ROD and ESD are supported by an administrative record that contains the documents and information upon which EPA based the selection of the response action.

27. Hazardous substances and solid wastes released from Respondents' facilities have moved downward from the surface, through soil, contaminating groundwater beneath Respondents' facilities. The contamination has generally migrated southward and westward from Respondents' facilities, leaving large plumes of contaminated groundwater. Evidence of downward migration through the soil includes hundreds of soil vapor and soil samples collected beneath Respondents' facilities demonstrating the presence of PCE, TCE, CTC, and other chemicals used at the Respondents' facilities, and geologic investigations which have documented the highly permeable nature of the subsurface soils. Evidence of migration through the aquifer includes the presence of chemicals in samples collected from a network of monitoring wells installed in the BPOU Area downgradient of the Respondents' facilities; the elapsed time of approximately 50 years since hazardous substances and solid wastes were first handled at some of the Respondents' facilities (allowing ample time for the hazardous substances and solid wastes to migrate significant distances); and computer simulations of groundwater flow and particle movement indicating that contamination originating at

Respondents' facilities has migrated at rates and directions sufficient to reach the extraction locations to be used in the Baldwin Park OU remedy.

28. The San Gabriel groundwater basin provides drinking water to more than one million residents of the San Gabriel Valley and nearby areas. Given the absence of dependable alternatives to the aquifer as the region's primary water supply, the groundwater is expected to remain as residents' primary source of drinking water indefinitely. Numerous water supply wells draw water directly from contaminated portions of the aquifer.

29. The groundwater contamination in the Baldwin Park area has forced the closure of numerous public water supply wells, which previously had the capacity to produce thousands of gallons per minute of potable water. Other wells have low levels of contamination, and are at risk of having to shut down. Most of the wells at risk of having to shut down are in the area described in the ROD and ESD as Subarea 3.

30. The affected water producers in the BPOU area include the La Puente Valley County Water District ("LPVCWD"), Valley County Water District ("VCWD"), San Gabriel Valley Water Company ("SGVWC"), Suburban Water Systems, the City of Industry Waterworks System, and California Domestic Water Co. The LPVCWD was forced to shut down its three groundwater wells (its entire supply) in 1997, prompting the construction of treatment facilities which are expected to become part of the remedy. The construction of the LPVCWD facilities was initially funded by several local water agencies, who were later reimbursed by the Cooperating Respondents. The VCWD has been forced to shut down six of its ten active water supply wells and is in the process of reactivating treatment at its primary remaining wellfield. The SGVWC has been forced to shut down five of eight wells at its Baldwin Park area wellfields (the "B4," "B5," and "B6" wellfields), and installed VOC treatment at the B4 and B6

wellfields. Suburban Water Systems has been forced to shut down seven of its eight active wells in the past three years resulting in its ground water production capacity decreasing from nearly 22,000 gpm to approximately 1,500 gpm. Suburban has installed treatment for NDMA at one of its contaminated wellfields (Plant 140 W-4). The City of Industry Waterworks System has been forced to shut down its wellfield and purchase water from a neighboring water company. California Domestic Water Co. has installed VOC and NDMA treatment and plans to install perchlorate treatment at its Well 14 site.

31. When perchlorate was first detected at potentially unsafe levels in public water supply wells in the San Gabriel Valley in 1997, there were no approved technologies available to use in its treatment. In California, water treatment technologies must be approved by the California Department of Health Services (CA DHS) before they can be used to provide potable water to the public via a public water supply.

32. Several perchlorate-removal technologies have been tested since 1997. As of the date of this Order, only one technology, an ion exchange process, has been approved by the CA DHS for removal of perchlorate from water. A full-scale treatment system, which includes the approved ion exchange process, has been constructed for LPVCWD. A biological reduction process has been tested, but has not yet been approved by CA DHS for removal of perchlorate from water.

33. Response actions at the site have included EPA's RI/FS activities (approximately 1984 through 1993); soil, soil gas, and groundwater investigations completed by Respondents and other parties (approximately 1990 through 2000); pre-design work completed by certain Respondents and other parties (approximately 1995 through 1999); remedial design activities completed by certain Respondents (1999 through 2002); and construction and

operation of "wellhead treatment" facilities by affected water utilities in the BPOU Area.

34. The selected remedy, as embodied in the interim ROD and the ESD, provides for the extraction and treatment of contaminated groundwater from two broad areas of contamination. The northernmost of the two areas is termed Subarea 1. Subarea 1 is located east of the I-605 freeway, along and to the north of Arrow Highway, and west of Azusa Avenue, as depicted in Attachment 1. Subarea 1 includes most of the Respondents' facilities and most of the known sources of the groundwater contamination, where contaminant concentrations in groundwater are hundreds of times drinking water standards. The southernmost subarea is termed Subarea 3, where contaminant concentrations are generally lower than in Subarea 1 but still exceed drinking water standards. Subarea 3 is downgradient of Subarea 1, and is located in the vicinity of the intersection of the I-10 and I-605 freeways, as depicted in Attachment 1. Planned extraction locations in each of the Subareas are shown in approved design documents referenced in the attached Statement of Work ("SOW"). The objectives of the selected remedy are to limit the movement of contaminated groundwater into clean or less contaminated areas and depths, remove a significant mass of contamination from the groundwater, and provide the data necessary to determine, in a subsequent final Record of Decision, "in situ" cleanup standards for the BPOU Area. The remedy provides for the construction and operation of groundwater extraction wells, treatment facilities, and conveyance facilities capable of pumping and treating approximately 22,000 gallons per minute of contaminated groundwater. The remedy requires the construction of new groundwater extraction wells, treatment systems, and pipelines, but also allows the use of existing facilities where appropriate.

35. The BPOU Record of Decision expresses a preference that the treated groundwater be delivered to water purveyors, rather than discharged to the aquifer.

36. The remedy will reduce exposure to the contaminated groundwater by limiting the spread of the contamination into less contaminated and uncontaminated portions of the aquifer, by reducing contaminant concentrations in the aquifer and, most likely, by providing a supply of potable water to residents.

III. CONCLUSIONS OF LAW AND DETERMINATIONS

37. The BPOU Area is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9). The BPOU Area also contains "facilities" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

38. The substances listed in Paragraphs 5 through 21 are found at the Site and are "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), and are "solid wastes" as defined in Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

39. These hazardous substances and solid wastes have been disposed of at the Site and have migrated or threaten to migrate from the Site into the soil and groundwater.

40. Respondents are "persons" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21). Respondents are "persons" as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15), whose past or present handling, storage, treatment, transportation or disposal of "solid wastes" as defined by Section 1004(27) of RCRA, 42 U.S.C. § 6903(27), may present an imminent and substantial endangerment to health or the environment under Section 7003 of RCRA, 42 U.S.C. § 6973.

41. Respondents are liable parties as defined in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and are subject to this Order

under Section 106(a) of CERCLA, 42 U.S.C. § 9606(a). Respondents are liable under Section 7003 of RCRA, 42 U.S.C. § 6973, because they contributed to the handling, storage, treatment, transportation or disposal of solid wastes at the BPOU Area.

42. There have been releases of hazardous substances at or from the Site as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22), including but not limited to the past disposal of hazardous substances at the Site and the migration of hazardous substances from the Site.

43. The potential for future migration of hazardous substances from the Site poses a threat of a "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

44. The release or threat of release of one or more hazardous substances from a facility may present an imminent and substantial endangerment to the public health or welfare or the environment under Section 106(a) of CERCLA, 42 U.S.C. § 9606(a). The substances listed in Paragraphs 4 through 21 are solid wastes that may present an imminent and substantial endangerment to health or the environment under Section 7003 of RCRA, 42 U.S.C. § 6973.

45. The contamination and endangerment at this Site constitute an indivisible injury. The actions required by this Order are necessary to protect the public health, welfare, and the environment. Respondents are jointly and severally responsible for all of the contamination at the Site.

46. A joint venture is a "person" pursuant to Section 101(21) of CERCLA, 42 U.S.C. § 9601 (21).

IV. NOTICE TO THE STATE

47. On August 13, 1999 and June 19, 2000, prior to issuing the Original Order, EPA notified the State of California Department of Toxic Substances Control that EPA would be issuing the Original Order. On February 19, 2002, prior to issuing this Amended Order, EPA notified the State of California Department of Toxic Substances Control that EPA would be issuing this Amended Order.

V. ORDER

48. Based on the foregoing, Respondents are hereby ordered to comply with the following provisions, including but not limited to all attachments to this Order, all documents incorporated by reference into this Order, and all schedules and deadlines in this Order, attached to this Order, or incorporated by reference into this Order:

VI. DEFINITIONS

49. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in the statute or its implementing regulations. Whenever terms listed below are used in this Order or in the documents attached to this Order or incorporated by reference into this Order, the following definitions shall apply:

A. "BPOU Area" shall mean the Baldwin Park Operable Unit of the San Gabriel Valley Superfund Sites, Areas 1-4, in and near the cities of Azusa, Irwindale, Baldwin Park, and West Covina in Los Angeles County, California, and depicted generally on the map attached as Attachment 1.

B. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9601 et seq.

C. "Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the end of the next working day.

D. "EPA" shall mean the United States Environmental Protection Agency.

E. "Explanation of Significant Differences" or "ESD" shall mean the Explanation of Significant Differences relating to the BPOU Area, issued by EPA in May 1999.

F. "DTSC" shall mean the California Department of Toxic Substances Control and any successor departments or agencies of DTSC.

G. "LARWQCB" shall mean the Los Angeles Regional Water Quality Control Board and any successor boards, departments, or agencies of LARWQCB.

H. "National Contingency Plan" or "NCP" shall mean the National Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, including any amendments thereto.

I. "Operation and Maintenance" or "O&M" shall mean all activities required under the Performance Standards Evaluation Plan and/or Operation and Maintenance Manual developed by Respondents pursuant to this Order and Section IV of the SOW, and approved by EPA.

J. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.

K. "Performance Standards" shall mean those cleanup standards, standards of control, and other substantive requirements, criteria or limitations, identified in the SOW, that the Remedial Action and Work required by this Order must attain and maintain.

L. "RCRA" shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. § 6901 et seq. (also known as the Resource Conservation and Recovery Act).

M. "Record of Decision" or "ROD" shall mean the EPA Record of Decision relating to the BPOU Area, signed on March 31, 1994, by the Regional Administrator, EPA Region 9, or her delegate, and all attachments thereto, as modified by the ESD issued in May 1999.

N. "Remedial Action" or "RA" shall mean those activities, except for Operation and Maintenance, to be undertaken by Respondents to implement the final plans and specifications submitted by Respondents pursuant to the Preliminary Design Report and Final Designs approved by EPA, including any additional activities required under Sections X, XI, XII, XIII, and XIV of this Order.

O. "Remedial Design" or "RD" shall mean those activities to be undertaken by Respondents to develop the final plans and specifications for the Remedial Action pursuant to the Preliminary Design Report.

P. "Remedial Design/Remedial Action (RD/RA) Work Plan" shall mean the work plan setting forth the Work to be performed by Respondents under this Order, as more fully described in Section IX of this Order and in the SOW.

Q. "Response Costs" shall mean all costs, including direct costs, indirect costs, and accrued interest incurred by the

United States to perform or support response actions at the BPOU Area. Response costs include but are not limited to the costs of overseeing the Work, such as the costs of reviewing or developing plans, reports and other items pursuant to this Order and costs associated with verifying the Work.

R. "Statement of Work" or "SOW" shall mean the amended statement of work for implementation of the portions of the Remedial Design, Remedial Action, and Operation and Maintenance at the BPOU Area, that is set forth in Attachment 4 to this Order. The Statement of Work updates and supersedes the statement of work attached to the Original Order. The Statement of Work is incorporated into this Order and is an enforceable part of this Order.

S. "Section" shall mean a portion of this Order identified by a Roman numeral and includes one or more paragraphs.

T. "Site" shall have the same meaning as the "BPOU Area," defined above.

U. "State" shall mean the State of California, including but not limited to the California Department of Toxic Substances, the California Regional Water Quality Control Board, and the California Department of Health Services, Drinking Water Field Operations Branch.

V. "United States" shall mean the United States of America.

W. "Work" shall mean all activities Respondents are required to perform under this Order, including Remedial Design, Remedial Action, Operation and Maintenance, and any activities required to be undertaken pursuant to Sections VII through XXIV, and XXVII of this Order.

VII. COMPLIANCE WITH THE ORDER

50. The purpose of this Amended Order is to add GenCorp to the Order as a Respondent. All other requirements of this Amended Order are the same as the requirements under the Original Order. Respondents who are currently in compliance with the Original Order are hereby deemed to be in compliance with this Amended Order and need not submit a new notice of intent to comply with the Order and need not resubmit any "sufficient cause" defenses that those Respondents previously asserted under Sections 106(b) and 107(c)(3) of CERCLA, 42 U.S.C. §§ 9606(b) and 9607(c)(3), in response to the Original Order. EPA has notified certain Respondents that they are not in compliance with the Original Order, and those Respondents are hereby deemed to be out of compliance with this Amended Order unless they provide, not later than four (4) days after the effective date of this Order, written notice to EPA's Project Manager stating whether they will comply with the terms of this Order. If those Respondents do not unequivocally commit to perform the RD and RA as provided by this Order, they shall be deemed to have violated this Order and to have failed or refused to comply with this Order. Respondents' written notice shall describe, using facts that exist on or prior to the effective date of this Amended Order, any "sufficient cause" defenses asserted by Respondents under Sections 106(b) and 107(c)(3) of CERCLA, 42 U.S.C. §§ 9606(b) and 9607(c)(3). The absence of a response by EPA to the notice required by this Paragraph shall not be deemed to be acceptance of Respondents' assertions.

51. As described in Section I of this Order, Respondent GenCorp is being added to the Order as a backup to Aerojet's performance of the Project Agreement that the Cooperating Respondents have negotiated with the Water Entities. Performance of the Project Agreement will satisfy the Cooperating Respondents' Work obligations under the Order, provided that all of the Work is performed in compliance with EPA's requirements under this Order, the SOW, submittals approved by EPA pursuant to the Order, and

pertinent EPA guidance. Respondent GenCorp is deemed to be compliance with this Order on the effective date of the Order and need not submit a notice of intent to comply with the Order unless otherwise requested to do so by EPA. Respondent GenCorp will continue to be deemed in compliance with the Order unless any of the following events occurs:

(A) Aerojet fails to make any payment of "Project Costs" (which is a defined term under the Project Agreement) within the time required under the Project Agreement;

(B) Aerojet fails to make any payment of "Interim Project Costs" (which is a defined term under the Project Agreement) within the time required under the Project Agreement;

(C) Aerojet fails to make any deposit of funds into the Escrow Account (an account created pursuant to the Project Agreement) within the time required under the Project Agreement;

(D) Aerojet fails to make any payment for brine destruction equipment, or any payment for other costs or cancellation fees related to such equipment, within the time required under the Project Agreement;

(E) Aerojet fails to provide or maintain financial assurances within the time required under the Project Agreement;

(F) Aerojet fails to make any payment of Past Environmental Claims (which is a defined term under the Project Agreement) within the time required under the Project Agreement;

(G) Aerojet fails to make any payment for insurance premiums, deductibles, or self insured retentions under Article 5 of the Project Agreement within the time required under the Project Agreement;

(H) Aerojet fails to meet any indemnity obligation under Article 5 of the Project Agreement within the time required under the Project Agreement; or

(I) Aerojet fails to make any other payment or comply with any other material financial obligation under the Project Agreement within the time required under the Project Agreement.

52. If Aerojet fails to meet any of the obligations described in the preceding Paragraph of this Order and GenCorp does not immediately fulfill the obligation, then GenCorp will be in violation of this Order. EPA will send written notice to GenCorp that it is in violation of the Order and that it will be subject to penalties for each day that it remains in violation of the Order. Upon fulfilling the obligation that Aerojet has failed to meet and providing written evidence to EPA of the fulfillment of the obligation, GenCorp will again be deemed in compliance with the Order.

VIII. PARTIES BOUND

53. This Order shall apply to and be binding upon each Respondent identified in Paragraphs 5 through 21, its directors, officers, employees, agents, successors, and assigns. Respondents are jointly and severally responsible for carrying out all activities required by this Order. Each Respondent shall communicate and cooperate with the other Respondents. No change in the ownership, corporate status, or other control of any Respondent shall alter any of the Respondents' responsibilities under this Order.

54. Respondents shall make best efforts to coordinate in the performance of the Work required by this Order with any person not a Respondent to this Order who offers to perform or, in lieu of performance, to pay for, in whole or in part, the Work required by this Order. Best efforts to coordinate shall include, at a minimum:

(A) Replying in writing within a reasonable period of time to an offer to perform or pay for, in whole or in part, the Work required by this Order;

(B) Engaging in good-faith negotiations with any party not a Respondent to this Order who offers to perform or to pay for, in whole or in part, the Work required by this Order; and

(C) Good-faith consideration of a good-faith offer to perform or pay for, in whole or in part, the Work required by this Order.

55. Respondents shall provide a copy of this Order to any prospective owners or successors before a controlling interest in any Respondent's assets, property rights, or stock are transferred to the prospective owner or successor. Respondents shall provide a copy of this Order to each contractor, sub-contractor, laboratory, or consultant retained to perform any Work under this Order, within five days after the effective date of this Order or on the date such services are retained, whichever date occurs later. Respondents shall also provide a copy of this Order to each person representing Respondents with respect to the BPOU Area or the Work and shall condition all contracts and subcontracts entered into hereunder upon performance of the Work in conformity with the terms of this Order. With regard to the activities undertaken pursuant to this Order, each contractor and subcontractor shall be deemed to be related by contract to the Respondents within the meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3). Notwithstanding the terms of any contract, Respondents are responsible for compliance with this Order and for ensuring that their contractors, subcontractors and agents comply with this Order, and perform any Work in accordance with this Order.

56. As described in Section I of this Order, the Cooperating Respondents intend to proceed with a Joint Project which will both implement the remedy and provide a supply of drinking water as the end use of the treated groundwater. Although the Water Entities are not parties to this Order and this Order does not specify any role for the Water Entities, any Respondent may make arrangements, subject to EPA approval, with the Water Entities or other qualified parties to implement appropriate portions of the Work required under the Order. Notwithstanding the terms of any agreement between Respondents and the Water Entities or other

qualified third parties, however, Respondents are responsible for compliance with this Order and for ensuring that any Work performed by the Water Entities or other qualified third parties is performed in accordance with this Order.

57. Not later than sixty (60) days prior to any transfer by any Respondent of any real property interest in any property included within the BPOU Area, such Respondent shall submit a true and correct copy of the transfer document(s) to EPA, and shall identify the transferee by name, principal business address and effective date of the transfer.

IX. WORK TO BE PERFORMED

58. Respondents shall cooperate with EPA in providing information regarding the Work to the public. As requested by EPA, Respondents shall participate in the preparation of such information for distribution to the public and in public meetings which may be held or sponsored by EPA to explain activities at or relating to the BPOU Area.

59. All aspects of the Work to be performed by Respondents pursuant to this Order shall be under the direction and supervision of a qualified project manager the selection of whom shall be subject to approval by EPA. The Cooperating Respondents have already notified EPA in writing of the name and qualifications of the project manager proposed to be used in carrying out Work under this Order. If at any time Respondents propose to use a different project manager, Respondents shall notify EPA and shall obtain approval from EPA before the new project manager performs any Work under this Order.

60. EPA will review Respondents' selection of a project manager according to the terms of this Paragraph and Section XIV of this Order. If EPA disapproves of the selection of the project manager, Respondents shall submit to EPA within 30 days after receipt of EPA's disapproval of the project manager previously

selected, a list of project managers, including primary support entities and staff, that would be acceptable to Respondents. EPA will thereafter provide written notice to Respondents of the names of the project managers that are acceptable to EPA. Respondents may then select any approved project manager from that list and shall notify EPA of the name of the project manager selected within twenty-one (21) days of EPA's designation of approved project managers.

61. From approximately September 1999 to early June 2000, EPA conducted RD/RA negotiations relating to the BPOU Area with certain of the Respondents ("the Offering Parties"). These negotiations did not result in an agreement. The Offering Parties submitted a work plan for the Remedial Design and Remedial Action at the Baldwin Park Operable Unit dated February 10, 2000 ("the February 10, 2000 Work Plan). This Amended Order, the attached amended SOW, and the approved Preliminary Design Report supersede the February 10, 2000 RD/RA Work Plan.

62. The Offering Parties submitted a draft Conceptual Design Report, and Addendum to the draft Conceptual Design Report, dated April 18, 2000 and May 18, 2000 respectively. EPA provided comments on these two reports on June 29, 2000. The Cooperating Respondents submitted a Draft Final Conceptual Design Report dated August 4, 2000. EPA approved the report with modifications on October 20, 2000. On July 2, 2001, EPA approved a Preliminary Design Report which supersedes the Draft Final Conceptual Design Report.

63. The approved Preliminary Design Report includes elements of and supersedes the RD/RA Work Plan. Required elements of the RD/RA Work Plan that are now in the approved Preliminary Design Report include a step-by-step plan for completing the remedial design and remedial action for the remedy described in the attached SOW and for attaining and maintaining all requirements, including Performance Standards, identified in the SOW. The

Preliminary Design Report describes in detail the tasks and deliverables Respondents will complete during the remedial design and remedial action phases, and a schedule for completing all tasks and deliverables.

64. The Preliminary Design Report provides for implementing the SOW, and shall comport with EPA's "Superfund Remedial Design/Remedial Action Handbook," U.S. EPA, Office of Emergency and Remedial Response, June 15, 1995, EPA 540/R-95/059. The Preliminary Design Report and future revisions or addenda to the Preliminary Design Report or RD/RA Work Plan are incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order.

65. Respondents shall complete the remedial design and perform the remedial action by implementing the Preliminary Design Report and approved Final Designs according to the approved schedule. Any violation of the Final Designs or approved schedule shall be a violation of this Order.

66. In March 2000, the Offering Parties submitted a draft Performance Standards and Long-Term Remedy Evaluation Plan for the Baldwin Park Operable Unit dated March 31, 2000. EPA provided comments on the draft plan on August 7, 2000.

67. The Cooperating Respondents to the Order submitted a revised Performance Standards Evaluation Plan dated September 8, 2000. EPA approval of the Plan is pending.

68. Within thirty (30) days after EPA approval of the Performance Standards and Evaluation Plan, Respondents shall submit a Sampling and Analysis Plan and Site Health and Safety Plan for field activities. The Site Health and Safety Plan shall conform to the applicable Occupational Safety and Health Administration and EPA requirements, including but not limited to the requirements in 29 C.F.R. § 1910.120.

69. The Cooperating Respondents submitted an initial draft of the Preliminary Design Report dated February 22, 2001. EPA provided comments dated April 2, 2001. The Cooperating Respondents submitted a revised draft of the Preliminary Design Report dated April 23, 2001. EPA approved the April 23, 2001 version of the Preliminary Design Report on July 2, 2001. Required elements of the Preliminary Design include the following: (1) an updated description of major components of the remedy; (2) a description of the roles and responsibilities of the Respondents and all participating third parties in the design, construction, operation, maintenance, and evaluation of the remedy; (3) initial plans, drawings, sketches, and specifications for groundwater extraction, treatment, conveyance, and monitoring systems; (4) an updated schedule for design, construction and operation of the Remedial Action; and (5) an updated list of substantive requirements, permits, regulatory agency approvals, MOUs, access or use agreements, easements, and properties developed or acquired to date, and activities and schedules for obtaining outstanding items required before start of construction (e.g., for use of existing facilities or disposition of the treated water).

70. The Cooperating Respondents submitted a 50% design report for the SGVWC B6 subproject dated August 17, 2001. The Cooperating Respondents submitted a 50% design report for the VCWD Arrow/Lante subproject dated September 27, 2001. EPA approved the 50% Remedial Design report for the SGVWC B6 subproject on February 7, 2002. EPA approval of the 50% Remedial Design report for the VCWD Arrow/Lante subproject is pending. The Cooperating Respondents submitted a portion of the Prefinal (90%) Remedial Design report for the SGVWC B6 subproject in December 2001. EPA approved the submittal in a letter dated February 7, 2002. The remainder of the 90% design for the SGVWC B6 subproject is due April 15, 2002. The 90% Remedial Design reports for the SGVWC B5 and VCWD Arrow/Lante subprojects will be submitted to EPA for review and approval by dates set upon EPA

approval of the 50% design report for that subproject. The Pre-Final Design shall be a draft version of the Final Design. The Pre-Final Design submittal(s) shall include, at a minimum, the following: (1) a complete set of plans and specifications; (2) a draft Operation and Maintenance Manual; and (3) the Construction Quality Assurance Plan (CQAP). The CQAP shall describe the approach to quality assurance during construction activities at the BPOU Area and shall specify a quality assurance official (QA Official), independent of the construction contractor, to conduct a quality assurance program during the construction phase of the project.

71. Upon EPA approval, each Pre-Final Design submittal shall become the Final Design and be incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order.

72. As part of or prior to submittal of the Pre-Final Design, Respondents shall prepare and submit to EPA for review a Construction Health and Safety Plan, as required by Section IV.F.3 and Section V of the SOW.

73. If Respondents seek to retain a construction contractor to assist in the performance of the Remedial Action, then Respondents shall submit a copy of the contractor solicitation documents to EPA not later than five (5) days after issuance of the solicitation documents.

74. On August 7, 2000, the Cooperating Respondents submitted information on the names and qualifications of construction contractors that may be used in carrying out work under this Order. Respondents shall supplement or update this information as necessary. EPA shall thereafter provide written notice of the name(s) of the contractor(s) it disapproves, if any. Respondents may select any contractor not disapproved and shall notify EPA of the name of the contractor selected within 5 days of selection.

If at any time Respondents propose to change the construction contractor, Respondents shall notify EPA and shall obtain approval from EPA as provided in this Paragraph, before the new construction contractor performs any work under this Order. If EPA disapproves of the selection of any contractor as the construction contractor, Respondents shall submit a list of contractors that would be acceptable to them to EPA within thirty (30) days after receipt of EPA's disapproval of the contractor previously selected.

75. The Work performed by Respondents pursuant to this Order shall, at a minimum, achieve the Performance Standards specified in Section III of the SOW, consistent with the approved Performance Standards Evaluation Plan.

76. Notwithstanding any action by EPA, Respondents remain fully responsible for achievement of the Performance Standards in the SOW. Nothing in this Order, or in the SOW, or in EPA's approval of the Preliminary Design Report, or approval of any other submission, shall be deemed to constitute a warranty or representation of any kind by EPA that full performance of the Remedial Design or Remedial Action will achieve the Performance Standards set forth in Section III of the SOW. Respondents' compliance with such approved documents does not foreclose EPA from seeking additional work to achieve the applicable performance standards.

77. Respondents shall, prior to any off-site shipment of hazardous substances from the BPOU Area to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving state and to EPA's RPM of such shipment of hazardous substances. However, the notification of shipments shall not apply to any shipments when the total volume of all shipments from the BPOU Area to the state will not exceed ten (10) cubic yards.

A. The notification shall be in writing, and shall include the following information, where available: (1) the name and location of the facility to which the hazardous substances are to be shipped; (2) the type and quantity of the hazardous substances to be shipped; (3) the expected schedule for the shipment of the hazardous substances; and (4) the method of transportation. Respondents shall notify the receiving state of major changes in the shipment plan, such as a decision to ship the hazardous substances to another facility within the same state, or to a facility in another state.

B. The identity of the receiving facility and State will be determined by Respondents following the award of the contract for Remedial Action construction. Respondents shall provide all relevant information, including information under the categories noted in Paragraph 77.A above, on the shipments as soon as practicable after the award of the contract and before the hazardous substances are actually shipped.

78. Within thirty (30) days after Respondents conclude that the Remedial Action has been fully performed, Respondents shall so notify EPA and shall schedule and conduct a pre-certification inspection to be attended by Respondents and EPA. The pre-certification inspection shall be followed by a written report, submitted within thirty (30) days of the inspection by a registered professional engineer and Respondents' Project Manager, certifying that the Remedial Action has been completed in full satisfaction of the requirements of this Order. If, after completion of the pre-certification inspection and receipt and review of the written report, EPA determines that the Remedial Action or any portion thereof has not been completed in accordance with this Order, EPA shall notify Respondents in writing of the activities that must be undertaken to complete the Remedial Action and shall set forth in the notice a schedule for performance of such activities. Respondents shall perform all activities described in the notice in accordance with the

specifications and schedules established therein. If EPA concludes, following the initial or any subsequent certification of completion by Respondents that the Remedial Action has been fully performed in accordance with this Order, EPA may notify Respondents that the Remedial Action has been fully performed. EPA's notification shall be based on present knowledge and Respondents' certification to EPA, and shall not limit EPA's right to perform periodic reviews pursuant to Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or require any action that in the judgment of EPA is appropriate at the BPOU Area, in accordance with Sections 104, 106, or 107 of CERCLA, 42 U.S.C. §§ 9604, 9606, or 9607, or in accordance with Section 7003 of RCRA, 42 U.S.C § 6973.

79. Within thirty (30) days after Respondents conclude that all phases of the Work have been fully performed, that the Performance Standards have been attained, and that all Operation and Maintenance activities have been completed, Respondents shall submit to EPA a written report by a registered professional engineer certifying that the Work has been completed in full satisfaction of the requirements of this Order. EPA shall require such additional activities as may be necessary to complete the Work or EPA may, based upon present knowledge and Respondents' certification to EPA, issue written notification to Respondents that the Work has been completed, as appropriate. EPA's notification shall not limit EPA's right to perform periodic reviews pursuant to Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or require any action that in the judgment of EPA is appropriate at the BPOU Area, in accordance with Sections 104, 106, or 107 of CERCLA, 42 U.S.C. §§ 9604, 9606, or 9607, or in accordance with Section 7003 of RCRA, 42 U.S.C § 6973.

X. FAILURE TO ATTAIN PERFORMANCE STANDARDS

80. In the event that EPA determines that additional response activities are necessary to meet applicable Performance Standards, EPA may notify Respondents that additional response actions are necessary.

81. Unless otherwise stated by EPA, within thirty (30) days of receipt of notice from EPA that additional response activities are necessary to meet any applicable Performance Standards, Respondents shall submit for approval by EPA a work plan for the additional response activities. The plan shall conform to the applicable requirements of Sections IX, XVI, and XVII of this Order. Upon EPA's approval of the plan pursuant to Section XIV, Respondents shall implement the plan for additional response activities in accordance with the provisions and schedule contained therein.

XI. EPA PERIODIC REVIEW

82. Under Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), and any applicable regulations, EPA may conduct a review at the BPOU Area to assure that the Work performed pursuant to this Order adequately protects human health and the environment. Until such time as EPA certifies completion of the Work, Respondents shall conduct the requisite studies, investigations, or other response actions as determined necessary by EPA in order to permit EPA to conduct the review under Section 121(c) of CERCLA, 42 U.S.C. § 9621(c). As a result of any review performed under this paragraph, Respondents may be required to perform additional Work or to modify Work previously performed.

XII. ADDITIONAL RESPONSE ACTIONS

83. EPA may determine that in addition to the Work identified in this Order and attachments to this Order, additional response activities may be necessary to protect human health and the environment. If EPA determines that additional response activities are necessary, EPA may require Respondents to submit a

work plan for additional response activities. EPA may also require Respondents to modify any plan, design, or other deliverable required by this Order, including any approved modifications.

84. Not later than thirty (30) days after receiving EPA's notice that additional response activities are required pursuant to this Section, Respondents shall submit a work plan for the response activities to EPA for review and approval. Upon approval by EPA, the work plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order. Upon approval of the work plan by EPA, Respondents shall implement the work plan according to the standards, specifications, and schedule in the approved work plan. Respondents shall notify EPA of their intent to perform such additional response activities within seven (7) days after receipt of EPA's request for additional response activities.

XIII. ENDANGERMENT AND EMERGENCY RESPONSE

85. In the event of any action or occurrence during the performance of the Work which causes or threatens to cause a release of a hazardous substance or which may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action to prevent, abate, or minimize the threat, and shall immediately notify EPA's Remedial Project Manager (RPM) or, if the RPM is unavailable, the RPM's Section Chief. If neither of these persons is available, Respondents shall notify the EPA Emergency Response Section, Region 9. Respondents shall take such action in consultation with EPA's RPM and in accordance with all applicable provisions of this Order, including but not limited to the Health and Safety Plan. In the event that Respondents fail to take appropriate response action as required by this Section, and EPA takes that action instead, Respondents shall reimburse EPA for all costs of the response action not inconsistent with the NCP. Respondents shall pay the response costs in the manner

described in Section XXIV of this Order, within thirty (30) days of Respondents' receipt of demand for payment and a reconciled EPA financial cost summary of the costs incurred.

86. Nothing in the preceding paragraph shall be deemed to limit any authority of the United States to take, direct, or order all appropriate action to protect human health and the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances on, at, or from the BPOU Area.

XIV. EPA REVIEW OF SUBMISSIONS

87. All deliverables shall be submitted to EPA, LARWQCB, and DTSC concurrently. EPA will, to the extent feasible, incorporate LARWQCB's and DTSC's comments, if any, into EPA's comments on the deliverable. After review of any deliverable, plan, report or other item which is required to be submitted for review and approval pursuant to this Order, EPA may: (a) approve the submission; (b) approve the submission with modifications; (c) disapprove the submission and direct Respondents to re-submit the document after incorporating EPA's comments; or (d) disapprove the submission and assume responsibility for performing all or any part of the response action. As used in this Order, the terms "approval by EPA," "EPA approval," or a similar term means the action described in items (a) or (b) of this paragraph.

88. In the event of approval or approval with modifications by EPA, Respondents shall proceed to take any action required by the plan, report, or other item, as approved or modified by EPA.

89. Upon receipt of a notice of disapproval or a request for a modification, Respondents shall, within the time specified in the attached SOW or such longer time as specified by EPA in its notice of disapproval or request for modification, correct the deficiencies and resubmit the plan, report, or other item for approval. Notwithstanding the notice of disapproval, or approval with modifications, Respondents shall proceed, at the direction

of EPA, to take any action required by any non-deficient portion of the submission.

90. If any submission is not approved by EPA, Respondents shall be deemed to be in violation of this Order.

XV. PROGRESS REPORTS

91. In addition to the other deliverables set forth in this Order, Respondents shall provide monthly progress reports to EPA with respect to actions and activities undertaken pursuant to this Order. The progress reports shall be submitted on or before the 10th day of each month following the effective date of this Order. Respondents' obligation to submit progress reports continues until EPA gives Respondents written notice that the Work has been completed. At a minimum these progress reports shall: (1) describe the actions which have been taken to comply with this Order during the prior month; (2) summarize test, sampling, or operating data generated or obtained by Respondents and not previously submitted to EPA; (3) provide any preliminary calculations and supporting data used to evaluate performance; (4) describe all work planned for the next two months with schedules relating such work to the overall project schedule for RD/RA completion; and (4) describe all problems encountered (including the nature of and duration of any noncompliance) and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

XVI. QUALITY ASSURANCE, SAMPLING AND DATA ANALYSIS

92. Respondent shall use the quality assurance, quality control, and chain of custody procedures described in the "EPA NEIC Policies and Procedures Manual," May 1978, revised May 1986, "EPA Guidance for the Data Quality Objectives Process" (EPA QA/G-4), "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations," November 1999 (EPA QA/R-5), "Guidance for Quality Assurance Project Plans" February 1998 (EPA

QA/G-5), EPA Region 9 "Sampling and Analysis Plan Guidance and Template, Version 2," March 2000 (R9QA/002), and any amendments to these documents, while conducting all sample collection and analysis activities required herein by any plan. To provide quality assurance and maintain quality control, Respondents shall:

A. Use only laboratories which have a documented Quality Assurance Program that complies with EPA guidance document EPA QA/R-5 (EPA Requirements for Quality Assurance Project Plans).

B. Ensure that the laboratory used by the Respondents for analyses performs according to a method or methods deemed satisfactory to EPA, is prepared to submit all protocols to be used for analyses to EPA at least 14 days before beginning analysis (if requested), and maintains protocols according to the record preservation requirements included in Section XXI.

C. Ensure that EPA personnel and EPA's authorized representatives are allowed access to the laboratory and personnel utilized by the Respondents for analyses.

93. Respondents shall notify EPA not less than fourteen (14) days in advance of any sample collection activity. At the request of EPA, Respondents shall allow split or duplicate samples to be taken by EPA or its authorized representatives, of any samples collected by Respondents with regard to the BPOU Area or pursuant to the implementation of this Order. In addition, EPA shall have the right to take any additional samples that EPA deems necessary.

XVII. COMPLIANCE WITH APPLICABLE LAWS

94. All activities by Respondents pursuant to this Order shall be performed in accordance with the requirements of all Federal and state laws and regulations. EPA has determined that the

activities contemplated by this Order are consistent with the National Contingency Plan (NCP).

95. Except as provided in Section 121(e) of CERCLA and the NCP, no permit shall be required for any portion of the Work conducted entirely on-site (i.e., within the areal extent of contamination at the BPOU Area or in very close proximity to the contamination and necessary for implementation of the Work.) Where any portion of the Work requires a Federal or state permit or approval, Respondents shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals. For treated water which will be put into a public water supply, all legal requirements for drinking water in existence at the time that the water is served will have to be met because EPA considers serving of the water to the public (at the tap) to be off-site.

96. This Order is not, and shall not be construed to be, a permit issued pursuant to any Federal or state statute or regulation.

97. All materials removed from the BPOU Area shall be disposed of or treated at a facility approved by EPA's RPM and in accordance with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3); with the U.S. EPA Off-Site Rule, 40 C.F.R § 300.440; and with all other applicable Federal, state, and local requirements.

XVIII. EPA PROJECT MANAGER

98. (A) All communications, whether written or oral, from Respondents to EPA shall be directed to EPA's Project Manager. Respondents shall submit to EPA three copies of all documents, including plans, reports, and other correspondence, which are developed pursuant to this Order, and shall send these documents by overnight mail or by certified mail, return receipt requested. Respondents shall also submit one copy of each deliverable to the

project managers for DTSC, LARWQCB, and any other State agencies, as specified by the EPA Project Manager. EPA's Project Manager is:

Wayne Praskins
U.S. Environmental Protection Agency
75 Hawthorne Street (SFD-7-3)
San Francisco, CA 94105
(415) 972-3181 [PRASKINS.WAYNE@EPA.GOV]

(B) DTSC's project manager is:

Jacalyn Spiszman
California Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630
(714) 484-5460 [JSPISZMA@DTSC.CA.GOV]

(C) LARWQCB's project manager is:

Arthur Heath
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013
(213) 576-6725 [AHEATH@RB4SWRCB.CA.GOV]

(D) One or more copies of each deliverable shall also be sent to EPA contractors, as specified by the EPA Project Manager.

99. EPA has the unreviewable right to change its Project Manager. If EPA changes its Project Manager, EPA will inform Respondents in writing of the name, address, and telephone number of the new Project Manager.

100. EPA's Project Manager shall have the authority lawfully vested in a Remedial Project Manager (RPM) and On-Scene Coordinator (OSC) by the National Contingency Plan, 40 C.F.R. Part 300. EPA's Project Manager shall have authority, consistent with the National Contingency Plan, to halt any work required by this Order, and to take any necessary response action.

XIX. ACCESS TO SITE NOT OWNED BY RESPONDENTS

101. To the extent that access to any portion of the BPOU Area, or any other property, owned or controlled by persons other than Respondents is necessary in order to perform the Work required by this Order, Respondents will obtain, or use their best efforts to obtain, site access agreements from the present owner within 60 days of the effective date of this Order. Such agreements shall provide access for EPA, its contractors and oversight officials, the state and its contractors, and Respondents or Respondents' authorized representatives and contractors, and such agreements shall specify that Respondents are not EPA's representatives with respect to liability associated with activities at the property. Respondents shall save and hold harmless the United States and its officials, agents, employees, contractors, subcontractors, or representatives for or from any and all claims or causes of action or other costs incurred by the United States including but not limited to attorneys fees and other expenses of litigation and settlement arising from or on account of acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Order, including any claims arising from any designation of Respondents as EPA's authorized representatives under Section 104(e) of CERCLA. Copies of such agreements shall be provided to EPA prior to Respondents' initiation of field activities. Respondents' best efforts shall include the payment of reasonable sums of money in consideration of access. If access agreements are not obtained within the time referenced above, Respondents shall immediately notify EPA of their failure to obtain access. Subject to the United States' non-reviewable discretion, EPA may use its legal authorities to obtain access for the Respondents, may perform those response actions with EPA contractors at the property in question, or may terminate the Order if Respondents cannot obtain access agreements. If EPA performs those tasks or activities with contractors and does not terminate the Order, Respondents shall perform all other

activities not requiring access to that property, and shall reimburse EPA, pursuant to Section XXIV of this Order, for all costs incurred in performing such activities. Respondents shall integrate the results of any such tasks undertaken by EPA into its reports and deliverables. Respondents shall reimburse EPA, pursuant to Section XXIV of this Order, for all response costs (including attorney fees) incurred by the United States to obtain access for Respondents.

XX. SITE ACCESS AND DATA/DOCUMENT AVAILABILITY

102. Respondents shall allow EPA and its authorized representatives and contractors to enter and freely move about all property at the BPOU Area to which Respondents have access and which is subject to or affected by the Work under this Order or where documents required to be prepared or maintained by this Order are located, for the following purposes: inspecting conditions, activities, the results of activities, records, operating logs, and contracts related to the Work or Respondents and their representatives or contractors pursuant to this Order; reviewing the progress of the Respondents in carrying out the terms of this Order; conducting tests as EPA or its authorized representatives or contractors deem necessary; using a camera, sound recording device or other documentary type equipment; and verifying the data submitted to EPA by Respondents. Respondents shall allow EPA and its authorized representatives to enter any property within the BPOU Area to which Respondents have access, to inspect and copy all records, files, photographs, documents, sampling and monitoring data, and other writings related to Work undertaken in carrying out this Order. Nothing herein shall be interpreted as limiting or affecting EPA's right of entry or inspection authority under Federal law.

103. Respondents may assert a claim of business confidentiality covering part or all of the information submitted to EPA pursuant to the terms of this Order under 40 C.F.R. § 2.203, provided such claim is not inconsistent with Section 104(e)(7) of CERCLA, 42

U.S.C. § 9604(e)(7) or other provisions of law. This claim shall be asserted in the manner described by 40 C.F.R. § 2.203(b) and substantiated by Respondents at the time the claim is made. Information determined to be confidential by EPA will be given the protection specified in 40 C.F.R. Part 2. If no such claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA or the state without further notice to the Respondents. Respondents shall not assert confidentiality claims with respect to any data related to conditions, sampling, or monitoring within the BPOU Area.

104. Respondents shall maintain, for the period during which this Order is in effect, an index of documents that Respondents claim contain confidential business information. The index shall contain, for each document, the date, author, addressee, and subject of the document. Upon written request from EPA, Respondents shall submit a copy of the index to EPA.

XXI. RECORD PRESERVATION

105. Respondents shall provide to EPA upon request, copies of all documents and information within their possession and/or control or that of their contractors or agents relating to activities at or near the BPOU Area or to the implementation of this Order, including but not limited to sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondents shall also make available to EPA for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

106. Until six (6) years after EPA provides notice that all Work required under this Order has been completed, Respondents shall preserve and retain all records and documents in their possession or control, and shall instruct their contractors and agents to

preserve and retain all records and documents in their possession or control, that relate in any manner to the BPOU Area or the Work. At the conclusion of this document retention period, Respondents shall notify the United States at least ninety (90) calendar days prior to the destruction of any such records or documents, and upon request by the United States, Respondents shall deliver any such records or documents to EPA.

107. Within forty-five (45) days after the effective date of this Order, Respondents shall submit a written certification to EPA's RPM that they have not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information relating to their potential liability with regard to the BPOU Area since notification of potential liability by the United States or the State or the filing of suit against them regarding the BPOU Area. Respondents who submitted this certification in response to the Original Order are deemed to be in compliance with this certification requirement and need not submit a new certification unless a further certification is requested by EPA. Respondents shall not dispose of any such documents without prior approval by EPA. Respondents shall, upon EPA's request and at no cost to EPA, deliver the documents or copies of the documents to EPA.

XXII. DELAY IN PERFORMANCE

108. Any delay in performance of this Order that, in EPA's judgment, is not properly justified by Respondents under the terms of this Section shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondents' obligations to fully perform all obligations under the terms and conditions of this Order.

109. Respondents shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to EPA's Project Manager within forty eight (48) hours after Respondents first knew or

should have known that a delay might occur. Respondents shall adopt all reasonable measures to avoid or minimize any such delay. Within five (5) business days after notifying EPA by telephone, Respondents shall provide written notification fully describing the nature of the delay, any justification for delay, any reason why Respondents should not be held strictly accountable for failing to comply with any relevant requirements of this Order, the measures planned and taken to minimize the delay, and a schedule for implementing the measures that will be taken to mitigate the effect of the delay. Increased costs or expenses associated with implementation of the activities called for in this Order is not a justification for any delay in performance.

XXIII. ASSURANCE OF ABILITY TO COMPLETE WORK

110. Respondents shall demonstrate the ability to complete the Work required by this Order and to pay all claims that arise from the performance of the Work by obtaining and presenting to EPA within 60 days after the effective dated of the Order, one of the following: (1) a performance bond; (2) a letter of credit; (3) a guarantee by a third party; or (4) internal financial information to allow EPA to determine that one or more of the Respondents have sufficient assets available to perform the Work. Respondents shall demonstrate financial assurance in an amount no less than $200,000,000.00. The Cooperating Respondents complied with this requirement in response to the Original Order and are deemed to be in compliance with this provision unless otherwise notified by EPA. If Respondents seek to demonstrate ability to complete the remedial action by means of internal financial information, or by guarantee of a third party, Respondents shall re-submit such information annually, on the anniversary of the effective date of this Order. If EPA determines that such financial information is inadequate, Respondents shall, within thirty (30) days after receipt of EPA's notice of determination, obtain and present to EPA for approval one of the other three forms of financial assurance listed above.

111. At least seven (7) days prior to commencing any work at the BPOU Area pursuant to this Order, Respondents shall submit to EPA a certification that Respondents or their contractors and subcontractors have adequate insurance coverage or have indemnification for liabilities for injuries or damages to persons or property which may result from the activities to be conducted by or on behalf of Respondents pursuant to this Order. Respondents shall ensure that such insurance or indemnification is maintained for the duration of the Work required by this Order.

XXIV. REIMBURSEMENT OF RESPONSE COSTS

112. Respondents shall reimburse EPA, upon written demand, for all response costs incurred by the United States in overseeing Respondents' implementation of the requirements of this Order or in performing any response action which Respondents fail to perform in compliance with this Order. EPA may submit to Respondents on a periodic basis an accounting of all response costs incurred by the United States with respect to this Order. EPA's certified Agency Financial Management System summary data (SPUR Reports), or such other summary as certified by EPA, shall serve as basis for payment demands.

113. Respondents shall, within thirty (30) days of receipt of each EPA accounting, remit a certified or cashier's check for the amount of those costs. Interest shall accrue from the later of the date that payment of a specified amount is demanded in writing or the date of the expenditure. The interest rate is the rate established by the Department of the Treasury pursuant to 31 U.S.C. § 3717 and 4 C.F.R. § 102.13.

114. Checks shall be made payable to the Hazardous Substances Superfund and shall include a reference to the Baldwin Park Operable Unit of the San Gabriel Valley Superfund Sites, the site identification number (CAD980818512), the account number (09M5), and the title of this Order. Checks shall be forwarded to:

U.S. Environmental Protection Agency - Region 9
ATTENTION: Superfund Accounting
P.O. Box 360863M
Pittsburgh, PA 15251

115. Respondents shall send copies of each transmittal letter and check to the EPA Project Manager.

XXV. UNITED STATES NOT LIABLE

116. The United States, by issuance of this Order, assumes no liability for any injuries or damages to persons or property resulting from acts or omissions by Respondents, or their directors, officers, employees, agents, representatives, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order. Neither EPA nor the United States may be deemed to be a party to any contract entered into by Respondents or their directors, officers, employees, agents, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order.

XXVI. ENFORCEMENT AND RESERVATIONS

117. EPA reserves the right to bring an action against Respondents under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States related to this Order and not reimbursed by Respondents. This reservation shall include but not be limited to past costs, direct costs, indirect costs, the costs of oversight, the costs of compiling the cost documentation to support oversight cost demand, as well as accrued interest as provided in Section 107(a) of CERCLA.

118. Notwithstanding any other provision of this Order, at any time during the response action, EPA may perform its own studies, complete the response action (or any portion of the response action) as provided in CERCLA and the NCP, and seek reimbursement

from Respondents for its costs, or seek any other appropriate relief.

119. Nothing in this Order shall preclude EPA from taking any additional enforcement actions, including modification of this Order or issuance of additional Orders, and/or additional remedial or removal actions as EPA may deem necessary, or from requiring Respondents in the future to perform additional activities pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a), Section 7003 of RCRA, 42 U.S.C. § 6973, or any other applicable law. Respondents shall be liable under CERCLA Section 107(a), 42 U.S.C. § 9607(a), for the costs of any such additional actions under CERCLA.

120. Notwithstanding any provision of this Order, the United States hereby retains all of its information gathering, inspection and enforcement authorities and rights under CERCLA, RCRA and any other applicable statutes or regulations.

121. Respondents shall be subject to civil penalties under Section 106(b) of CERCLA, 42 U.S.C. § 9606(b), of not more than $27,500 for each day in which Respondents willfully violate, or fail or refuse to comply with this Order without sufficient cause. In addition, failure to properly provide response action under this Order, or any portion hereof, without sufficient cause, may result in liability under Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), for punitive damages in an amount at least equal to, and not more than three times the amount of any costs incurred by the Fund as a result of such failure to take proper action.

122. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person for any liability it may have arising out of or relating in any way to the BPOU Area.

123. If a court issues an order that invalidates any provision of this Order or finds that Respondents have sufficient cause not to comply with one or more provisions of this Order, Respondents shall remain bound to comply with all provisions of this Order not invalidated by the court's order.

XXVII. ADMINISTRATIVE RECORD

124. Upon request by EPA, Respondents must submit to EPA all documents related to the selection of the response action for possible inclusion in the administrative record file.

XXVIII. EFFECTIVE DATE AND COMPUTATION OF TIME

125. This Order shall be effective ten (10) days after the Order is signed by the Director of the Superfund Division, U.S. EPA Region 9. All times for performance of ordered activities shall be calculated from this effective date, with the exception of those activities that have already been performed pursuant to the Original Order.

XXIX. OPPORTUNITY TO CONFER

126. Respondents may, within ten (10) days after the date this Order is signed, request a conference with EPA's RPM and Assistant Regional Counsel to discuss this Order. If requested, the conference shall occur at EPA's regional offices at a date and time to be determined by EPA.

127. The purpose and scope of the conference shall be limited to issues involving the implementation of the response actions required by this Order and the extent to which Respondents intend to comply with this Order. This conference is not an evidentiary hearing, and does not constitute a proceeding to challenge this Order. It does not give Respondents a right to seek review of this Order, or to seek resolution of potential liability, and no official stenographic record of the conference will be made. At

any conference held pursuant to Respondents' request, Respondents may appear in person or by an attorney or other representative.

128. Requests for a conference must be by telephone followed by written confirmation mailed that day to Wayne Praskins, (415) 972-3181, U.S. EPA Region 9, 75 Hawthorne Street (SFD-7-3), San Francisco, CA 94105.

So Ordered, this 28th day of February, 2002.

BY:_____

Jane Diamond
Acting Director, Superfund Division
U.S. Environmental Protection Agency, Region 9

Attachment 4 to Administrative Order 2000-13 (as amended).

AMENDED RD/RA STATEMENT OF WORK

BALDWIN PARK OPERABLE UNIT

SAN GABRIEL VALLEY SUPERFUND SITES

LOS ANGELES COUNTY, CALIFORNIA

February 28, 2002

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AMENDED STATEMENT OF WORK FOR
REMEDIAL DESIGN AND REMEDIAL ACTION
ATTACHMENT 4 TO ADMINISTRATIVE ORDER 2000-13 (as amended)
Baldwin Park Operable Unit
San Gabriel Valley Superfund Sites

I. INTRODUCTION

This amended Statement of Work (amended SOW) describes activities which must be carried out by Respondents in order to design, construct, operate, maintain, monitor, and evaluate the remedy described in the Baldwin Park Operable (OU) Unit Record of Decision (ROD), as modified by the Explanation of Significant Differences (ESD). The ROD, which specifies an interim remedy for the site, was signed on March 31, 1994; the ESD was issued in May 1999. An SOW (the "original SOW") was included as Attachment 4 to the original Administrative Order 2000-13 (the "original Order") issued by the U.S. Environmental Protection Agency ("EPA") on June 30, 2000. This amended SOW, an attachment to the Amended Order for Remedial Design and Remedial Action (the "amended Order" or "the Order"), supercedes the June 2000 SOW and reflects modifications to the original SOW made by EPA and work completed since June 2000. The definitions set forth in Section VI of the amended Order shall apply to this amended SOW unless expressly provided otherwise herein.

A. NATURE AND EXTENT OF CONTAMINATION AT THE BALDWIN PARK OPERABLE UNIT

The Baldwin Park Operable Unit addresses an area of groundwater contamination over a mile wide, eight miles long, and more than 1,000 feet deep, extending beneath portions of the cities of Azusa, Irwindale, Baldwin Park, and West Covina in Los Angeles County, California. The groundwater contaminants include trichloroethene (TCE), tetrachloroethene (PCE), carbon tetrachloride (CTC), other volatile organic compounds (VOCs), 1,4-dioxane, perchlorate, and N-nitrosodimethylamine (NDMA).

The groundwater contamination in the Baldwin Park area has forced the closure of numerous public water supply wells that formerly had the capacity to produce tens of thousands of gallons per minute of potable water. Other wells have low levels of contamination, and are at risk of having to shut down. Most of these wells are in the area described in the ROD and ESD as Subarea 3.

The affected water producers include the La Puente Valley County Water District (LPVCWD), Valley County Water District (VCWD), San Gabriel Valley Water Company (SGVWC), Suburban Water Systems , the City of Industry Waterworks System, and California Domestic Water Co. The LPVCWD was forced to shut down its three groundwater wells (its entire supply) in 1997, prompting the construction of treatment facilities which are expected to become part of the remedy. The construction of the LPVCWD facilities was initially funded by several local water agencies, who were later reimbursed by some of the Respondents. The VCWD has been forced to shut down six of its ten active water supply wells and is in the process of reactivating treatment at its primary remaining wellfield. The SGVWC has been forced to shut down five of eight

wells at its Baldwin Park area wellfields (the "B4," "B5," and "B6" wellfields), and installed VOC treatment at the B4 and B6 wellfields. Suburban Water Systems has been forced to shut down seven of its eight active wells in the past three years resulting in its ground water production capacity decreasing from nearly 22,000 gpm to approximately 1,500 gpm. Suburban has installed treatment for NDMA at one of its contaminated wellfields (Plant140 W-4). The City of Industry Waterworks System has been forced to shut down its wellfield and purchase water from a neighboring water company. California Domestic Water Co. has installed VOC and NDMA treatment and plans to install perchlorate treatment at its Well 14 site.

B. SUMMARY OF BALDWIN PARK OPERABLE UNIT REMEDY

Major components of the Baldwin Park Operable Unit interim remedy include:

- groundwater extraction wells capable of pumping an average of approximately 22,000 gallons per minute of contaminated groundwater from new and/or existing wells in the two *subareas* of contamination identified in the ROD and ESD. EPA has approved two alternative "extraction plans," each specifying a different combination of extraction rates and locations. If requested, EPA will evaluate modifications to the approved rates and locations;

- water treatment facilities needed to remove trichloroethene (TCE), tetrachloroethene (PCE), carbon tetrachloride (CTC), perchlorate, NDMA, 1,4-dioxane, and other chemicals from the groundwater in compliance with relevant performance standards;

- pipelines, pumps, and other conveyance facilities needed to transport the treated groundwater to the delivery, recharge, and/or discharge location(s);

- groundwater monitoring wells and piezometers to evaluate the effectiveness of the remedy and determine the nature of the final remedy.

Based upon current information, EPA believes that extraction of contaminated groundwater at the approved locations and rates is an efficient means of satisfying the BPOU Performance Standards. The capability to predict the impacts of the specified extraction rates and locations on the movement of groundwater in the Baldwin Park area is imperfect, however, despite the use of the best available analytical tools. Therefore, performance monitoring data collected in accordance with the approved Performance Standards Evaluation Plan (see Section IV.E of this amended SOW) shall be used to determine the extent to which the approved extraction rates and locations satisfy the Performance Standards. If performance monitoring indicates less than full compliance, Respondents may be required to supplement or modify the work to provide full compliance following the procedures described in the amended Order and approved Performance Standards Evaluation Plan.

C. ROLE OF LOCAL AGENCIES AND WATER UTILITIES

EPA's BPOU Record of Decision requires that the treated water meet drinking water standards and expresses the preference that the treated groundwater be delivered to water purveyors for distribution to their residential and business customers. From 1998 though 2002, certain Respondents known first as the Offering Parties and later as the Cooperating Respondents negotiated with representatives of the Main San Gabriel Basin Watermaster and individual water purveyors ("the water entities") to supply some or all of the treated groundwater to local water purveyors forced to shut down water supply wells due to the contamination. In addition to making use of the treated water, water entity representatives had expressed an interest in the design, construction, and operation of some or all of the remedy; and in incorporating existing groundwater extraction, treatment, and distribution facilities into the remedy. Coordination with the Watermaster should ensure that the extraction and disposition of the groundwater is consistent with the amended judgment in Upper San Gabriel Valley Municipal Water District v. City of Alhambra (Case No. 924128, California Superior Court for the County of Los Angeles), administered by the Watermaster.

As of February 2002, the Cooperating Respondents had completed negotiations with seven participating water entities and produced a draft "BPOU Project Agreement." The project agreement specifies that the Cooperating Respondents will fund the design, construction, operation, maintenance and management of the groundwater extraction, treatment and distribution facilities that make up the remedy, and that the water entities will design, construct, own, operate, and maintain the facilities. EPA confirms, in a letter dated February 28, 2002, that the work described in the project agreement, if constructed and operated in accordance with plans and specifications approved by EPA, constitutes compliance with the amended Order by the Cooperating Respondents. The Respondents remain ultimately responsible for compliance with this amended SOW.

As of February 28, 2002, the project agreement has ben approved by two of the water entities and approval is pending by the remaining water entities and the Cooperating Respondents. The Cooperating Respondents have stated, in a letter dated January 28, 2002, that they are prepared to recommend that their principals approve a January 24, 2002 version of the Project Agreement pending satisfactory completion of the exhibits to the agreement. After all parties have signed the agreement, the project agreement will become effective if and when a "condition precedent" regarding insurance coverage is satisfied and the Superior Court approves Watermaster's participation in the agreement.

D. REMEDIAL DESIGN WORK COMPLETED TO DATE

Between September 1999 and June 2000, the Offering Parties began the remedial design and submitted several remedial design deliverables. The Offering Parties submitted an initial draft Remedial Design/ Remedial Action (RD/RA) Work Plan dated October 13,

1999; a draft final Remedial Design/ Remedial Action Work Plan dated November 16, 1999; a final RD/RA Work Plan dated February 10, 2000; a draft Conceptual Design Report dated April 18, 2000; an Addendum to the draft Conceptual Design Report dated May 18, 2000; and a draft final Performance Standards Evaluation and Long-Term Remedy Evaluation Plan dated March 31, 2000. The draft Conceptual Design Report, Addendum to the draft Conceptual Design Report, EPA comments on the draft Conceptual Design Report and Addendum, and draft Performance Standards Evaluation and Long-Term Remedy Evaluation Plan were included as Attachments 5 - 8 to the June 2000 Order.

Since the Order was issued in June 2000, the Cooperating Respondents and the water entities, on behalf of the Cooperating Respondents, have submitted several additional remedial design deliverables. The Cooperating Respondents submitted a Draft Final Conceptual Design Report dated August 4, 2000; an initial draft of the Preliminary Design Report dated February 22, 2001; and a revised draft of the Preliminary Design Report dated April 23, 2001. The Cooperating Respondents submitted 50% Remedial Design Reports for the SGVWC B6 and VCWD Arrow/Lante subprojects dated August 17, 2001 and September 27, 2001 respectively. The Cooperating Respondents submitted a portion of the 90% Remedial Design submittal for the SGVWC B6 subproject in December 2001. The Cooperating Respondents submitted a revised Performance Standards Evaluation Plan dated September 8, 2000.

EPA approved the April 23, 2001 version of the Preliminary Design Report (which supersedes the Draft Final Conceptual Design Report and final RD/RA Work Plan) on July 2, 2001. EPA approved the 50% Remedial Design Report for the SGVWC B6 subproject on February 7, 2002. EPA approved the December 2001 90% remedial design submittal for the SGVWC B6 subproject in a letter dated February 7, 2002. As of the date of this amended Order, EPA approval is pending for the 50% Remedial Design Report for the VCWD Arrow/Lante subproject and the Performance Standards Evaluation Plan.

II. RESPONDENTS' RESPONSIBILITIES

Respondents are ordered to design, construct, and operate the remedy described in the Preliminary Design Report, the approved 50% and 90% Remedial Design submittals for the SGVWC B6 subproject, and other approved design submittals, as modified by EPA's approval letters.

III. PERFORMANCE STANDARDS

As specified in the amended Order, Respondents shall meet all Performance Standards set forth in this amended SOW. The first Performance Standard described below (Performance Standard "A") is drawn from the remedial objectives specified in the ROD and ESD. The ROD states that

the remedial objectives are to prevent future increases in, and begin to reduce, concentrations of groundwater contaminants in the Baldwin Park area by limiting further migration of contaminated groundwater into clean and less contaminated areas or depths that would benefit most from additional protection and by removing contamination from the aquifer. The ROD specifies extraction of contaminated groundwater at the downgradient end of two broad subareas of contamination, at locations and rates sufficient to hydraulically contain contaminated groundwater moving through each subarea during all anticipated groundwater flow conditions. The locations of the subareas are shown in the Explanation of Significant Differences, issued in May 1999, which is Attachment 3 to this Order.

The Performance Standards also include cleanup standards, standards of control, quality criteria, and other substantive requirements, criteria or limitations including all Applicable or Relevant and Appropriate Requirements (ARARs) included in the ROD.

Performance Standards relevant to this amended SOW include:

A. The design, installation, operation, and maintenance of groundwater extraction systems at the downgradient end of two subareas of groundwater contamination to limit further migration of contaminated groundwater into clean and less contaminated areas or depths, and to remove contaminant mass. The subareas are designated in the ROD (as modified by the ESD) as Subarea 1 (the *upper area*) and Subarea 3 (the *lower area*).

1. Subarea 1 shall include portions of the aquifer that include a majority of the known or suspected source areas and depths. Source areas and depths include locations believed, through direct measurement or indirect evidence, to contain a significant mass of soil (i.e., vadose zone) contamination, non-aqueous phase contamination, or other continuing subsurface sources of dissolved-phase groundwater contamination. At a minimum, source areas include the following 15 BPOU PRP facilities, which are located at the specified addresses: 1100 W. Hollyvale St (Aerojet General Corp.); 1120 W. Foothill Blvd (Huffy Corp.); 1704 W. First St (Oil and Solvent Process Co.); 1151 W. 5th St (Wynn Oil); 1201 W. Gladstone St (Azusa Gas Systems); 766 N. Todd Ave (Azusa Pipe and Tube Bending); 601 S. Vincent Ave (Fairchild Holding Corp.); 701 W. Foothill Blvd (The Hartwell Corporation); 717 North Coney Ave (Phaostron Instruments & Electronic Company and Philip Morris Inc.); 237 Motor Ave (Reichhold Inc.); 968 W. Foothill Blvd (Rubber/Urethanes, Inc.); 925 W. First Street (Screwmatic, Inc.); 1004 W. 10th St (Valspar and Mobil Oil and Lockheed Martin); 145 S. Irwindale Ave (White and White Properties and RPM Merit and Whico); and 204 S. Motor Ave (White and White Properties and NORAM). The approximate locations and boundaries of the 15 facilities are shown in Figure 2 (included at the end of this amended SOW).

2. Subarea 3 shall include significant portions of the aquifer where PCE, TCE, CTC, perchlorate, NDMA, 1,4-dioxane or other contaminant concentrations exceed Federal Maximum Contaminant Levels, California Maximum Contaminant Levels, or California action levels;

B. The installation and operation of treatment systems that are designed to reduce the concentrations of PCE, TCE, CTC, other VOCs, perchlorate, NDMA, and 1,4-dioxane in the treated groundwater to below Federal Primary and Secondary Maximum Contaminant Levels (MCLs), California Primary MCLs, and California action levels, regardless of the end use or discharge method for the treated water. This paragraph shall not apply to EPA-approved CERCLA section 104(b) activities that will result in temporary high flow, high volume discharges (e.g., discharges resulting from extraction well development, aquifer testing, sampling of selected water supply wells);

C. Compliance with all legal requirements for drinking water in existence at the time that the water is served, for any water which will be put into a public water supply;

D. Compliance with substantive portions of the National Pollutant Discharge Elimination System (NPDES) discharge requirements for any treated water discharged to surface water;

E. Compliance with the Los Angeles Regional Water Quality Control Board's Water Quality Control Plan for the Los Angeles River Basin (the "Basin Plan"), which incorporates State Water Resources Control Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," for any discharge to land, including recharge at a spreading basin or discharge to surface water;

F. The installation and operation of treatment systems needed to ensure that the nitrate concentration in any discharge to land, to a spreading basin, or to a surface water is similar to or lower than the concentration in the receiving water, except for EPA-approved CERCLA section 104(b) activities that will result in temporary high flow, high volume discharges;

G. Use of best available control technology for toxics (T-BACT) on new stationary operating equipment, so the cumulative carcinogenic impact from air toxics does not exceed the maximum individual cancer risk limit of ten in one million (1×10^{-5}), as required by South Coast Air Quality Management District (SCAQMD) Rule 1401;

H. Compliance with substantive portions of SCAQMD Regulation XIII, comprising Rules 1301 through 1313, on new source review;

I. Limits in visible emissions (SCAQMD Rule 401) and particulate concentrations (SCAQMD Rule 403);

J. No discharges of material that is odorous or causes injury, nuisance or annoyance to the public (SCAQMD Rule 402);

K. Compliance with substantive requirements in 22 CCR Sections 66264.601 -.603 for *miscellaneous units*, and related substantive closure requirements in 22 CCR Sections 66264.111-.115 for air strippers or granular activated carbon (GAC) contactors;

L. Compliance with container storage requirements in 22 CCR Sections 66264.170 -.178 for the storage of contaminated groundwater over 90 days;

M. Compliance with 22 CCR Sections 66262 and 66268 and other State Hazardous Waste Control Act (HWCA) requirements for storage and disposal if the spent carbon is classified as a characteristic hazardous waste; and

N. Compliance with substantive portions of Water Well Standards for construction of water supply wells.

IV. LIST OF DELIVERABLES AND OTHER TASKS

Respondents shall submit plans, specifications, reports, and other deliverables for EPA review and/or approval, as specified below. One copy of each final written deliverable shall be provided in an unbound format suitable for reproduction; additional copies shall be provided as stated in the amended Order or as requested by EPA. Information presented in color must be legible and interpretable when reproduced in non-color. If EPA requests, final written deliverables available electronically shall also be provided in electronic format.

Respondents shall implement quality control procedures to ensure the quality of all reports and submittals to EPA. These procedures shall include but are not limited to: internal technical and editorial review; independent verification of calculations; and documentation of all reviews, problems identified, and corrective actions taken.

As described in Section XIV of the amended Order, EPA may approve, disapprove, or modify each deliverable. Major deliverables are described below and summarized in Section V of this amended SOW. EPA shall review deliverables to assess the likelihood that the remedial action will achieve the Performance Standards described in the ROD, ESD, and this amended SOW, but EPA review or approval of a task or deliverable shall not be construed as a guarantee as to the adequacy of such task or deliverable.

A. REMEDIAL DESIGN / REMEDIAL ACTION WORK PLAN

On February 10, 2000, the Offering Parties submitted a final RD/RA Work Plan for the Baldwin Park Operable Unit. On July 2, 2001, EPA approved a Preliminary Design Report which included elements of and superseded the RD/RA Work Plan.

Elements of the RD/RA Work Plan that have been incorporated into the approved Preliminary Design Report include:

1. Updated Project Description: an updated description of the work to be implemented by Respondents, including extraction locations; treatment technologies; disposition of the treated water (i.e., recipients, delivery locations, delivery pressures, and delivery rates); locations of major project components; existing equipment to be used as part of the remedy; and other key aspects of the project. The condition, anticipated longevity, and any limitations in the use of each existing facility should be addressed.

2. Description of the Responsibility and Authority of All Organizations and Key Personnel Involved With The Projects: a description of the responsibilities and qualifications of key personnel expected to direct or play a significant role in the Remedial Design, Remedial Action, or Operation and Maintenance, including Respondents' Project Manager, Designer, Construction Contractor, Construction Quality Assurance personnel, and Resident Engineer. Lines of authority and a brief descriptions of duties should be provided.

3. Treatability Study: a description of ongoing or planned treatability studies related to implementation of the BPOU.

4. Updated Schedule: the initiation and completion dates for each required design activity, construction activity, inspection, and deliverable required by the amended Order and this amended SOW, consistent with the schedule included as Section V of this amended SOW.

5. Contracting Strategy: a description of the planned contracting strategy, including a brief description of the process for evaluation and approval of construction changes and EPA review and approval of significant changes.

6. Plans for Satisfying All Permitting Requirements and Acquiring Property, Leases, Easements, or Other Access: a list all permits, property, leases, and easements required for implementation of the remedy; permits, property, leases, and easements acquired to date; and a schedule for submittal of permit applications and acquisition of property, leases, or easements not yet obtained.

Where normally required, permits must be obtained for all off-site activities, such as from the California Department of Health Services for domestic use of treated water. Respondents are not required to obtain permits for on-site remedial activities, but must comply with all substantive requirements, including local building codes. If permits will not be obtained for an onsite activity where a

permit is normally required, Respondents shall describe all consultative or coordination activities planned to identify and satisfy the substantive requirements.

7. Third Parties Necessary for Design, Construction, or Operation of Remedy: a description of the roles and responsibilities of Respondents, participating water purveyors and water agencies, and other parties expected to play a significant role in the design, construction, or operation of the remedy. If legally-binding agreements are not in place, include a description of commitments made to date and planned efforts to secure necessary commitments including a schedule. If the participation of a third party is uncertain, include a description of alternatives to be implemented in the event that the party does not fulfill its planned role. Possible third party roles include agreeing to the use of existing equipment (e.g., groundwater extraction wells, water treatment facilities, pipelines, groundwater recharge facilities), treatment plant operation, acceptance of treated groundwater, and recharge of treated groundwater.

8. Identification of Any Concerns about the Quantity, Quality, Completeness, or Usability of Water Quality or Other Data Upon Which the Design Will Be Based: a description of additional data collection efforts, if any, required for completion of the Remedial Design. Respondents shall consider whether any data are needed to verify that critical design assumptions remain valid (e.g., the areas of groundwater contamination requiring hydraulic containment). If additional data are required, Respondents shall propose a schedule for preparation of a Sampling and Analysis Plan (or Addendum) and implementation of the Plan. Laboratory results from water quality sampling required by California Department of Health Services (CA DHS) or the Los Angeles Regional Water Quality Control Board (LARWQCB) may be used during remedial design if they are of known and adequate quality.

9. A Description of Planned Community Relations Activities to Be Conducted During Remedial Design or Remedial Action: In accordance with Section IX of the amended Order, Respondents shall cooperate with EPA and the State in providing information regarding the Work to the public. As requested by EPA or the State, Respondents shall participate in the preparation of such information for dissemination to the public and in public meetings which may be held or sponsored by EPA or the State to explain activities at or relating to the Site.

10. Updates to the RD/RA Work Plan and Periodic Reporting to EPA: provisions for reporting progress to EPA (consistent with the schedule included in Section V of this amended SOW and the Performance Standard Evaluation Plan required in accordance with Section IV.E of this amended SOW). Include plans for revisions or supplements to approved plans to document changes or provide information not available at the time the document was initially submitted.

B. REMEDIAL DESIGN

Remedial Design activities shall include the preparation of clear and comprehensive design documents, construction plans and specifications, and other design activities needed to implement the work and satisfy Performance Standards set forth in the ROD, ESD, and this amended SOW. All plans and specifications shall be developed in accordance with relevant portions of the U.S. EPA's Superfund Remedial Design/Remedial Action Handbook (EPA 540/R-95/059), and in accordance with the schedule set forth in Section V of this amended SOW.

1. Conceptual Design

The Offering Parties submitted a draft Conceptual Design Report, and Addendum to the draft Conceptual Design Report, dated April 18, 2000 and May 18, 2000 respectively. EPA provided comments on these two reports on June 29, 2000. The Cooperating Respondents submitted a "Draft Final Conceptual Design Report" dated August 4, 2000. EPA approved the report with modifications on October 20, 2000. On July 2, 2001, EPA approved a Preliminary Design Report which supersedes the Draft Final Conceptual Design Report.

2. Preliminary Design

The Cooperating Respondents submitted an initial draft of the Preliminary Design Report dated February 22, 2001. EPA provided comments dated April 2, 2001. The Cooperating Respondents submitted a revised draft of the Preliminary Design Report dated April 23, 2001. EPA approved the April 23, 2001 version of the Preliminary Design Report on July 2, 2001. Elements of the Preliminary Design submittal include the following:

a. Preliminary information on the design basis and design criteria;

b. Plans, drawings, sketches, and specifications of groundwater extraction, treatment, conveyance, and monitoring systems;

c. A schedule for design, construction and operation of the Remedial Action;

d. An updated list of substantive requirements satisfied; permits or regulatory agency approvals obtained; MOUs developed; access or use agreements, easements, or properties acquired; and activities and schedules for obtaining outstanding items required before start of construction (e.g., for use of existing facilities or disposition of the treated water).

3. Intermediate Design

The Cooperating Respondents submitted Intermediate (50%) Remedial Design Reports for the SGVWC B6 and VCWD Arrow/Lante subprojects dated August 17, 2001 and September 27, 2001 respectively. EPA approved the 50% Remedial Design Report for the SGVWC B6 subproject on February 7, 2002. As of the date of this amended Order, EPA approval is pending for the 50% Remedial Design Report for the VCWD Arrow/Lante subproject.

After resolution of land acquisition issues, EPA intends to set a due date for the 50% Remedial Design Report for the SGVWC B5 subproject. The due date is expected to be in spring 2002.

4. Prefinal (90%)/Final Design

The Cooperating Respondents provided a portion of the Prefinal (90%) Remedial Design submittal for the SGVWC B6 subproject in December 2001. EPA approved the submittal in a letter dated February 7, 2002. The remainder of the 90% design for the SGVWC B6 subproject is due April 15, 2002. Due dates for the 90% Remedial Design submittals for the SGVWC B5 and VCWD Arrow/Lante subprojects will be set upon approval of the 50% design reports.

The Prefinal Design submittals should fully address all comments made on the Preliminary Design Report and 50% Design Reports and, if not previously addressed, be accompanied by a memorandum indicating how the comments were incorporated into the Prefinal Design. The Prefinal Design documents shall be certified by a Professional Engineer registered in the State of California. The Prefinal Design shall serve as the Final Design if EPA has no further comments and provides its approval.

5. Applicability of Remedial Design Requirements to Existing Facilities

If Respondents reach agreements for use of existing wells, existing treatment facilities, existing pipelines, or other existing facilities, Respondents shall submit as-built drawings and specifications, operating agreements, operation and maintenance manuals, or other documentation as appropriate in lieu of design submittals. EPA will review the documents to evaluate the facility's capability to contribute reliably to the attainment of the Performance Standards described in Section III of this amended SOW. If the existing facilities are part of an operating stand-alone system (e.g., the La Puente Valley County Water District extraction, treatment, and distribution system), EPA will evaluate: i) the extent to which the existing facilities appear to be achieving Performance Standards; and ii) any needed

modifications to the project or its operation to fully satisfy Performance Standards and ensure the project's future capability to meet Performance Standards.

C. REMEDIAL ACTION

Respondents shall implement the Remedial Action. During the design period, in preparation for implementation of the Remedial Action and in accordance with the schedule included in Section V of this amended SOW, Respondents shall submit a Construction Quality Assurance Plan and a Construction Health and Safety Plan.

Upon approval of the Final Design and Construction Quality Assurance Plan, Respondents shall begin construction in accordance with the approved schedule. Significant field changes to the approved design shall not be undertaken without the approval of EPA. All work on the Remedial Action shall be documented in enough detail to produce as-built construction drawings after the Remedial Action is complete. Review and/or approval of submittals does not guarantee that the remedy, when constructed, will meet Performance Standards.

1. Remedial Action Work Plan

Respondents shall not be required to submit a separate Remedial Action Work Plan.

2. Preconstruction Meeting

A Preconstruction Meeting shall be held after selection of the construction contractor but before initiation of construction. The meeting shall include Respondents' representatives and federal, state and local government agency personnel; shall define the roles, relationships, and responsibilities of all parties; review work area security and safety protocols; review any access issues; review construction schedule; and review construction quality assurance procedures.

Respondents shall ensure that the results of the Preconstruction Meeting are documented and transmitted to all parties in attendance, including the names of people in attendance, issues discussed, clarifications made, and special instructions issued.

3. Remedial Action Construction

Respondents shall implement the Remedial Action as detailed in the approved design documents.

4. Prefinal Construction Inspection

Within fourteen (14) days after Respondents believe that construction is complete and the remedy is operational and functional, Respondents shall notify the U.S. EPA and the State for the purposes of conducting a prefinal inspection to be attended, at a minimum, by EPA and Respondent representatives. If a Prefinal Construction Inspection is held for a portion of the remedy, one or more additional inspections shall be conducted so that the entire remedy is inspected.

The objective of the inspection(s) is to determine whether construction is complete, the remedy (or the inspected portion) is "operational and functional," and the work has been completed consistent with the amended Order. Any outstanding construction items discovered during the inspection shall be identified and noted on a punch list. Respondents shall certify that the equipment is effectively meeting the purpose and intent of the specifications. Retesting shall be completed where deficiencies are revealed. A Prefinal Construction Inspection Report shall be submitted by Respondents which outlines the outstanding construction items, actions required to resolve the items, completion date for the items, and an anticipated date for the Final Inspection. The Prefinal Construction Inspection Report can be in the form of a punch list or letter.

5. Final Construction Inspection

Within fourteen (14) days after completion of any work identified in the Prefinal Construction Inspection Report, Respondents shall notify the U.S. EPA and the State for the purposes of conducting a final inspection. The final inspection shall consist of a walk-through inspection by representatives of the U.S. EPA and Respondents. The Prefinal Construction Inspection Report shall be used as a checklist with the final inspection focusing on the outstanding construction items identified in the prefinal inspection. Confirmation shall be made that outstanding items have been resolved.

Any outstanding construction items discovered during the inspection still requiring correction shall be identified and noted on a punch list. If any items are still unresolved, the inspection shall be considered to be a Prefinal Construction Inspection requiring another Prefinal Construction Inspection Report and subsequent Final Construction Inspection.

6. Remedial Action Report

As specified in the approved schedule included in Section V of this amended SOW (twenty-eight (28) days after the final construction inspection), Respondents shall submit a Remedial Action Report. The Report shall be prepared consistent with

appropriate parts of the EPA guidance "Close Out Procedures for National Priorities List Sites," (US EPA January 2000), and other relevant EPA guidance. In the Remedial Action Report, a registered Professional Engineer and Respondents' Project Manager shall state that the Remedial Action has been completed in full satisfaction of the requirements of this amended Order. The written report shall provide a synopsis of the work defined in this amended SOW, describe deviations from the RD/RA Work Plan, include as-built drawings signed and stamped by a Professional Engineer, provide actual costs of the Remedial Action (and O&M to date), and provide a summary of the results of operational and performance monitoring completed to date. The report shall contain the following statement, signed by a responsible corporate official of the Respondents or the Respondents' Project Manager:

> "To the best of our knowledge, after thorough investigation, we certify that the information contained in or accompanying this submission is true, accurate and complete. We are aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

As provided in Section IX of the amended Order, the Remedial Action shall not be considered complete until EPA approves the Remedial Action Report.

D. OPERATION AND MAINTENANCE

Operation and Maintenance (O&M) shall be performed in accordance with the approved Operation and Maintenance Manual.

1. Operation and Maintenance Plan

Respondents shall not be required to submit an Operation and Maintenance (O&M) Plan. O&M-related information shall be provided in the O&M Manual (see Section IV.D.2 of this amended SOW) and/or the Performance Standards Evaluation Plan (see Section IV.E of this amended SOW) .

2. Operation and Maintenance Manual

Respondents shall submit a draft Operation and Maintenance Manual during the design period, in accordance with the approved schedule included in Section V of this amended SOW, and a revised draft after the final construction inspection to incorporate manufacturer and vendor information and any design modifications implemented during the Remedial Action. If the remedy is constructed as two or more discrete projects, separate Operation and Maintenance Manuals may be submitted for each project. The Operation and Maintenance Manuals must be reviewed and approved by EPA. The manuals shall include all necessary Operation

and Maintenance information for the operating personnel, and provide or address the following:

a. System description;
b. Startup and shutdown procedures;
c. Criteria for determining when the remedy (or a discrete portion of the remedy) is "operational and functional";
d. Description and schedule of normal operation and maintenance tasks, including equipment and material requirements, anticipated equipment replacement for significant components, availability of spare parts, provisions for remote monitoring and control, operator training and certification requirements, staffing needs, and related requirements;
e. Indicators of system performance and/or maintenance (e.g., parameters to be monitored to determine timing for activated carbon or ion exchange resin replacement, or to assess biological reactor performance);
f. Criteria to be used to determine when the treated groundwater will be supplied to the primary or secondary user or use (e.g., low water demand limiting direct use, high groundwater elevations or insufficient recharge capacity limiting recharge);
g. Any planned variation in groundwater extraction rate, including a description of the magnitude and timing of any expected variation;
h. Record keeping and reporting requirements, including operating and inspection logs, maintenance records, and periodic reports; and
i. Description and analysis of potential operating problems (e.g., equipment failure, higher than expected contaminant concentrations), including emergency operating and response activities and relevant health and safety information.

E. PERFORMANCE STANDARDS EVALUATION PLAN

Performance monitoring activities shall be performed in accordance with the approved Performance Standards Evaluation Plan, to evaluate whether Performance Standards, as described in Section III of this amended SOW, have been achieved and are being sustained over the life of the remedy. The Offering Parties submitted a draft final Performance Standards Evaluation and Long-Term Remedy Evaluation Plan, dated March 31, 2000. EPA provided comments on the draft final plan on August 7, 2000. The Cooperating Respondents submitted a revised Performance Standards Evaluation Plan dated September 8, 2000. EPA approval of the revised Plan is pending.

F. SUPPORTING PLANS

1. Sampling and Analysis Plan and Health and Safety Plan

Sampling and Analysis Plan. In accordance with Section IX of the amended Order, Respondents shall prepare a Sampling and Analysis Plan (SAP), or update an existing Plan to perform performance monitoring and carry out any other field investigations needed to complete the remedial design, and construct and operate the remedial action. The Plan shall discuss the timing of data collection activities, including data collection activities needed to establish baseline conditions before startup of the remedial action.

The SAP shall include a Field Sampling and Analysis Plan (FSAP), a Quality Assurance Project Plan (QAPP), and a schedule for implementation of sampling, analysis, and reporting activities. The FSAP and QAPP may be submitted as one document or separately, and may reference an existing FSAP or QAPP. Upon EPA approval, Respondents shall proceed to implement the sampling activities described in the SAP.

a. The FSAP shall describe sampling objectives, analytical parameters, sample locations and frequencies, sampling equipment and procedures, sample handling and analysis, management of investigation-derived wastes, and planned uses of the data. The FSAP shall be consistent with relevant EPA guidance. It shall be written so that a field sampling team unfamiliar with the project would be able to gather the samples and field information required. The FSAP shall include a schedule that describes activities that must be completed in advance of sampling, including acquisition of property, access agreements, and arrangements for disposal of investigation-derived waste.

b. The QAPP shall describe project objectives, organizational and functional activities, data quality objectives (DQOs), and quality assurance and quality control (QA/QC) protocols that shall be used to achieve the desired DQOs. The QAPP shall be consistent with relevant EPA guidance (e.g., EPA "Guidance for the Data Quality Objectives Process" (EPA QA/G-4), "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations," November 1999 (EPA QA/R-5), "Guidance for Quality Assurance Project Plans" February 1998 (EPA QA/G-5)). The DQOs shall, at a minimum, reflect use of analytical methods for obtaining data of sufficient quality to meet National Contingency Plan requirements as identified at 40 CFR 300.435 (b). In addition, the QAPP shall address personnel qualifications, sampling procedures, sample custody, analytical procedures, document control procedures, preservation of records (see Sections IX , XVI, and XXI of the amended Order), data reduction, data validation, data management,

procedures that will be used to enter, store, correct, manipulate, and analyze data; protocols for transferring data to EPA in electronic format; and document management.

All analytical data, whether or not validated, shall be submitted to EPA within 45 calendar days of sample shipment to the laboratory. All analytical data, validated and in electronic format in an approved data structure, shall be submitted within 90 calendar days of the sample shipment to the laboratory. Well construction information shall be submitted within 90 days after completion of a well.

Respondents shall demonstrate in advance and to EPA's satisfaction that each laboratory it may use is qualified to conduct the proposed work and meets the requirements specified in Section XVI of the amended Order. EPA may require that Respondents submit detailed information to demonstrate that the laboratory is qualified to conduct the work, including information on personnel qualifications, equipment and material specification, and laboratory analyses of performance samples (e.g., blank and/or spike samples). In addition, EPA may require submittal of data packages equivalent to those generated by the EPA Contract Laboratory Program (CLP).

Health and Safety Plan. To ensure protection of on-site personnel and area residents from hazards posed by sampling activities, Respondents shall also develop a Health and Safety Plan. The Plan shall be in conformance with U.S. Occupational, Safety, and Health Administration (OSHA) requirements as outlined in 29 C.F.R. §§1910 and 1926, and any other applicable requirements. The Health and Safety Plan shall describe health and safety risks, employee training, monitoring and personal protective equipment, medical monitoring, levels of protection, safe work practices and safeguards, contingency and emergency planning, and provisions for site control. EPA will review but will neither approve nor disapprove Respondents' Health and Safety Plan.

2. Construction Quality Assurance Plan

Respondents shall develop and implement a Construction Quality Assurance Plan to ensure, with a reasonable degree of certainty, that the completed Remedial Action meets or exceeds all design criteria, plans and specifications, and Performance Standards. The Construction Quality Assurance Plan shall include the following elements:

a. Responsibilities and authorities of all organizations and key personnel involved in the design and construction of the Remedial Action;

b. A description of the quality control organization, including a chart showing lines of authority, members of the Quality Assurance team, their responsibilities and qualifications, and acknowledgment that the Quality Assurance team will implement the quality control system for all aspects of

the work specified and shall report to the Respondents' Project Manager and EPA. Members of the Quality Assurance team shall have a good professional and ethical reputation, previous experience in the type of QA/QC activities to be implemented, and demonstrated capability to perform the required activities. They shall also be independent of the construction contractor;

c. Description of the observations, inspections, and control testing that will be used to assure quality workmanship, verify compliance with the plans and specifications, or meet other QC objectives during implementation of the Remedial Action. This includes identification of sample size, sample locations, and sample collection or testing frequency; and acceptance and rejection criteria. The Plan shall specify laboratories to be used, and include information which certifies that personnel and laboratories performing the tests are qualified and the equipment and procedures to be used comply with applicable standards;

d. Reporting procedures, frequency, and format for QA/QC activities. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports, and final documentation. Provisions for the final storage of all records shall be presented in the Construction Quality Assurance Plan. The QA official shall report simultaneously to the Respondents' representative and to EPA; and

e. A list of definable features of the work to be performed. A definable feature of work is a task which is separate and distinct from other tasks and has separate quality control requirements.

3. Construction Health and Safety Plan

Respondents shall prepare a Construction Health and Safety Plan in compliance with OSHA regulations and protocols and other applicable requirements. The Construction Health and Safety Plan shall describe health and safety risks, employee training, monitoring and personal protective equipment, medical monitoring, individuals responsible in an emergency, and provisions for site control for workers and for visitors to the job site. EPA will review but neither approve nor disapprove Respondents' Construction Health and Safety Plan.

V. SUMMARY AND SCHEDULE FOR MAJOR DELIVERABLES AND OTHER TASKS

ACTIVITY[1]	DATE SUBMITTED OR DUE	ESTIMATED EPA REVIEW TIME[2]
REMEDIAL DESIGN		
Notification of Project Manager (as required by Section IX of the Order)	*The Cooperating Respondents notified EPA of their choice for Project Manager on July 21, 2000.*	-
Conceptual Design Report	*The Cooperating Respondents submitted a "Draft Final Conceptual Design Report" dated August 4, 2000. EPA approved the report (which has been superseded by the Preliminary Design Report) with modifications on October 20, 2000.*	-
Contractor Solicitation Documents	Within five (5) days after issuance	-
Notification of name, title, and qualifications of potential construction contractors	*The Cooperating Respondents submitted information on construction contractors under consideration on August 7, 2000.*	-
Notification of selected RD/RA contractor(s)	Within five (5) days of selection	-
Preliminary Remedial Design Submittal	*The Cooperating Respondents submitted an initial draft of the Preliminary Design Report dated February 22, 2001. EPA provided comments dated April 2, 2001. The Cooperating Respondents submitted a revised draft of the Preliminary Design Report dated April 23, 2001. EPA approved the April 23, 2001 version of the Preliminary Design Report on July 2, 2001.*	-

ACTIVITY[1]	DATE SUBMITTED OR DUE	ESTIMATED EPA REVIEW TIME[2]
50% Remedial Design Submittal	*The Cooperating Respondents submitted 50% Remedial Design Reports for the SGVWC B6 and VCWD Arrow/Lante subprojects dated August 17, 2001 and September 27, 2001 respectively. EPA approved the 50% Remedial Design Report for the SGVWC B6 subproject on February 7, 2002. EPA approval of the 50% Remedial Design Report for the VCWD Arrow/Lante subproject is pending.* A new due date will be set for the 50% Remedial Design Report for the SGVWC B5 subproject.	-
Prefinal (90%) Remedial Design Submittal	*The Cooperating Respondents submitted a portion of the 90% Remedial Design for the SGVWC B6 subproject in December 2001. EPA approved the submittals in a letter dated February 7, 2002.* The remainder of the 90% design submittal for the SGVWC B6 subproject is due April 15, 2002. Due dates for the 90% Remedial Design submittals for the SGVWC B5 and VCWD Arrow/Lante subprojects will be set upon approval of the 50% design reports.	21
REMEDIAL DESIGN / REMEDIAL ACTION (RD/RA) WORK PLAN		
RD/RA Work Plan	*Incorporated into Preliminary Design Report.*	-
REMEDIAL ACTION		
Pre-Construction Meeting	As specified in approved subproject schedule.	-
Complete Construction and Satisfy "Operational and Functional" Criteria	As specified in approved subproject schedule.	-
Prefinal Construction Inspection	Fourteen (14) days after remedy satisfies "Operational and Functional" criteria	-
Prefinal Construction Inspection Report	Seven (7) days after Prefinal Construction Inspection	7

ACTIVITY[1]	DATE SUBMITTED OR DUE	ESTIMATED EPA REVIEW TIME[2]
Final Construction Inspection (if needed)	Twenty-eight (28) days after Prefinal Construction Inspection	-
Final Construction Inspection Report (if needed)	Seven (7) days after Final Inspection	7
Remedial Action Report	Draft due twenty-eight (28) days after final construction inspection	28
OPERATION AND MAINTENANCE		
Operation and Maintenance Manual	Operation and Maintenance Manual(s) are due as part of the pre-final design submittal(s).	21
LA PUENTE VALLEY COUNTY WATER DISTRICT SUBPROJECT		
Documentation related to the existing La Puente Valley County Water District subproject	*The Cooperating Respondents have submitted various design documents related to the La Puente Valley County Water District subproject.* No later than 90 days after the effective date of the project agreement, Cooperating Respondents shall submit as-built drawings and specifications, an operation and maintenance manual, and related documentation of the subproject not previously submitted to EPA.	21
PERFORMANCE EVALUATION		
Performance Standards Evaluation Plan	*The Cooperating Respondents submitted a revised Performance Standards Evaluation Plan dated September 8, 2000.* EPA approval is pending.	21
Progress Reports	As required by approved Performance Standards Evaluation Plan	7
Performance Evaluation Reports	As required by approved Performance Standards Evaluation Plan	28

ACTIVITY[1]	DATE SUBMITTED OR DUE	ESTIMATED EPA REVIEW TIME[2]
Noncompliance Notification	Due five (5) days after receipt of information indicating noncompliance	-
Compliance Action Plan	Draft due fourteen (14) days after receipt of information indicating noncompliance	14
Compliance Correction Report	As established in approved Compliance Action Plan	-
SUPPORTING PLANS		
Sampling and Analysis Plan	Draft due thirty (30) days after EPA approval of Performance Standards Evaluation Plan	28
Site Health and Safety Plan	Due thirty (30) days after EPA approval of Performance Standards Evaluation Plan (i.e., at same time as, or as appendix to, Sampling and Analysis Plan)	28
Construction Quality Assurance Plan, Construction Health and Safety Plan	Draft Plans are due as part of the pre-final design submittal(s).	28
CERTIFICATIONS REQUIRED BY SECTION IX OF AMENDED ORDER		
Pre-certification Inspection	Thirty (30) days after Respondents conclude that the Remedial Action has been fully performed	-
Certification that the Remedial Action has been Completed	Thirty (30) days after the pre-certification inspection	-
Certification that all Work has been Completed	Thirty (30) days after Respondents conclude that all Work has been performed, including completion of all Operation and Maintenance activities	-

1. As defined in the amended Order, the term "EPA approval" means that: (a) EPA approves the submission; or (b) EPA approves the submission with modifications.
2. Failure to review a deliverable within the estimated time shall not constitute a violation of the Order by the United States.

VI. REFERENCES

The following list, although not comprehensive, provides citations for many of the regulations and guidance documents that apply to the RD/RA process. Respondents shall review these guidance documents and shall use the information provided therein in performing the RD/RA and preparing all deliverables under this amended SOW.

"National Oil and Hazardous Substances Pollution Contingency Plan, Final Rule," 55 Fed. Reg. 8,666 (March 8, 1990).

"Superfund Remedial Design/ Remedial Action Handbook," U.S. EPA, Office of Emergency and Remedial Response. June 1995 (EPA 540/R-95/059)

"Interim Final Guidance on Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties," U.S. EPA, Office of Emergency and Remedial Response, February 14, 1990, OSWER Directive No. 9355.5-01.

EPA's "Guidance for the Data Quality Objectives Process" September 1994 (EPA QA/G-4).

"EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations," November 1999 (EPA QA/R-5).

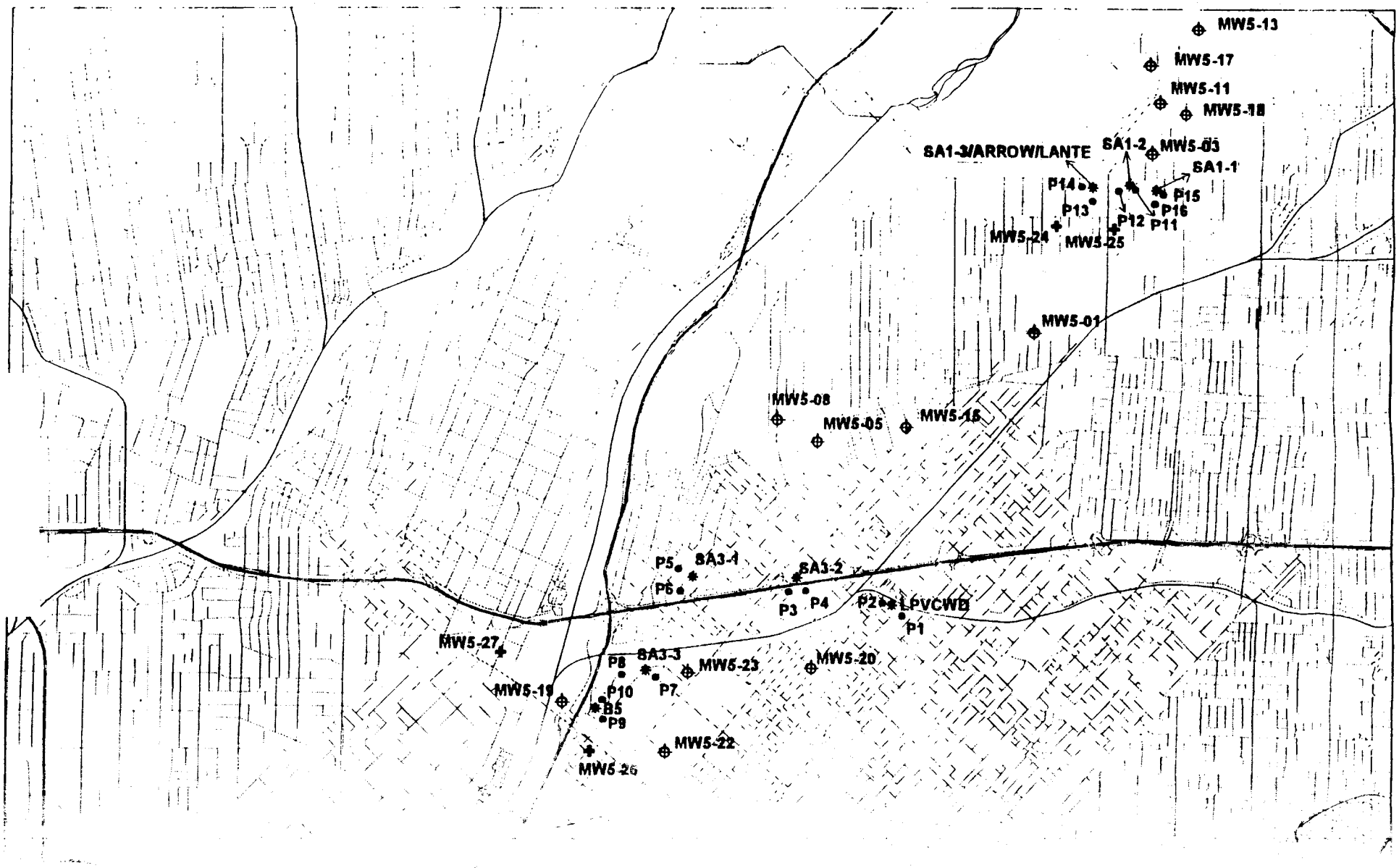
"Guidance for Quality Assurance Project Plans," U.S. EPA, February 1998 (EPA QA/G-5).

Data Quality Objectives Process for Superfund, September 1993, U.S. EPA Office of Emergency and Remedial Response (EPA/540/G-93/071)

"Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites," U.S. EPA, Office of Emergency and Remedial Response, December 1988 (EPA/540/G-88/003)

"Methods for Monitoring Pump-and-Treat Performance," U.S. EPA Office of Research and Development, June 1994 (EPA 600/R-94/123).

"Close Out Procedures for National Priorities List Sites," U.S. EPA Office of Emergency and Remedial Response, January 2000 (EPA 540-R-98-016)


MW5-13
MW5-17
MW5-11
MW5-18
SA1-3/ARROW/LANTE
SA1-2
MW5-03
SA1-1
P14
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P13
P16
P12
P11
MW5-24
MW5-25
MW5-01
MW5-08
MW5-05
MW5-15
P5
SA3-1
P6
SA3-2
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P4
P2
LPVCWD
P1
MW5-27
P8
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P9
MW5-22
MW5-26

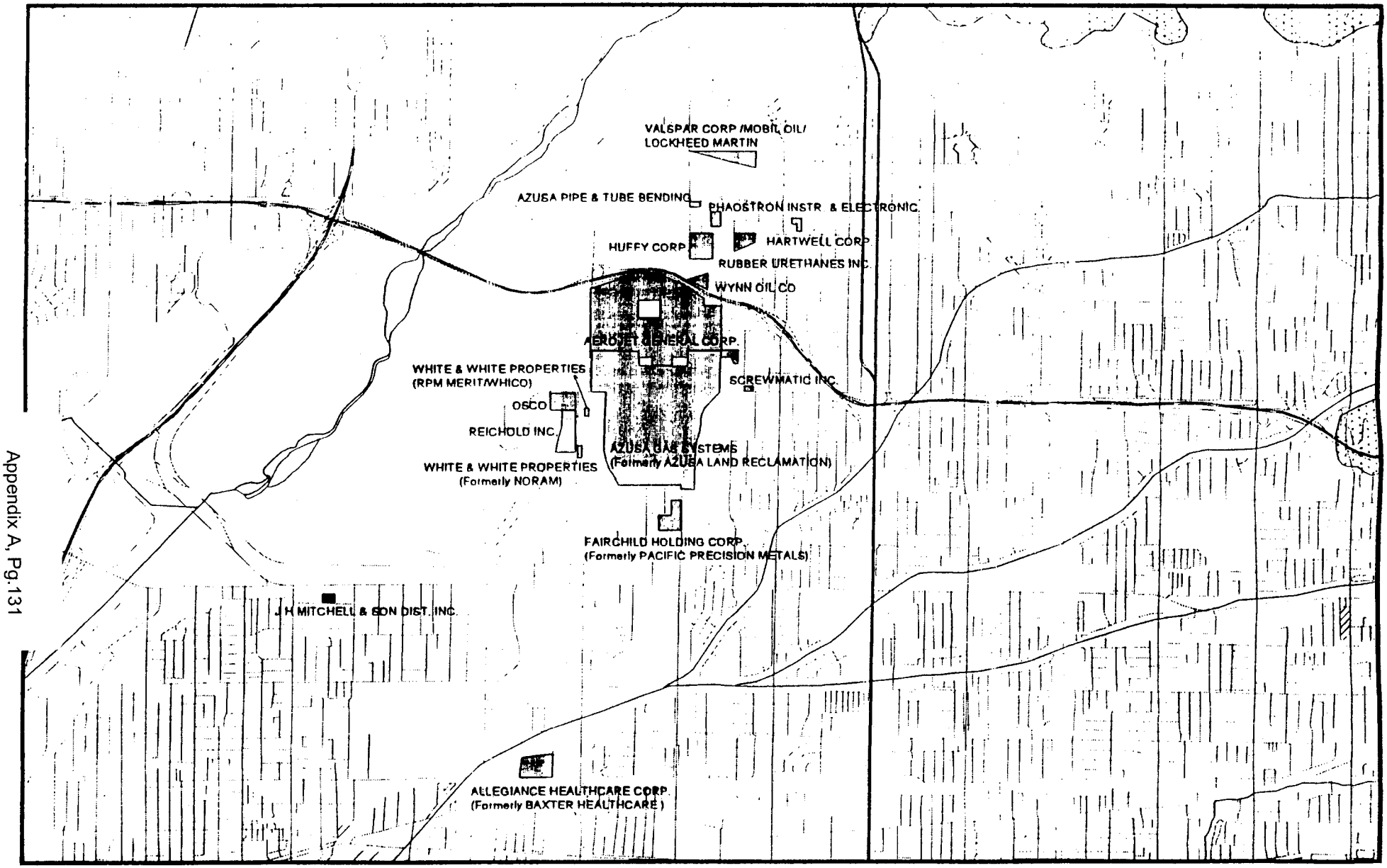

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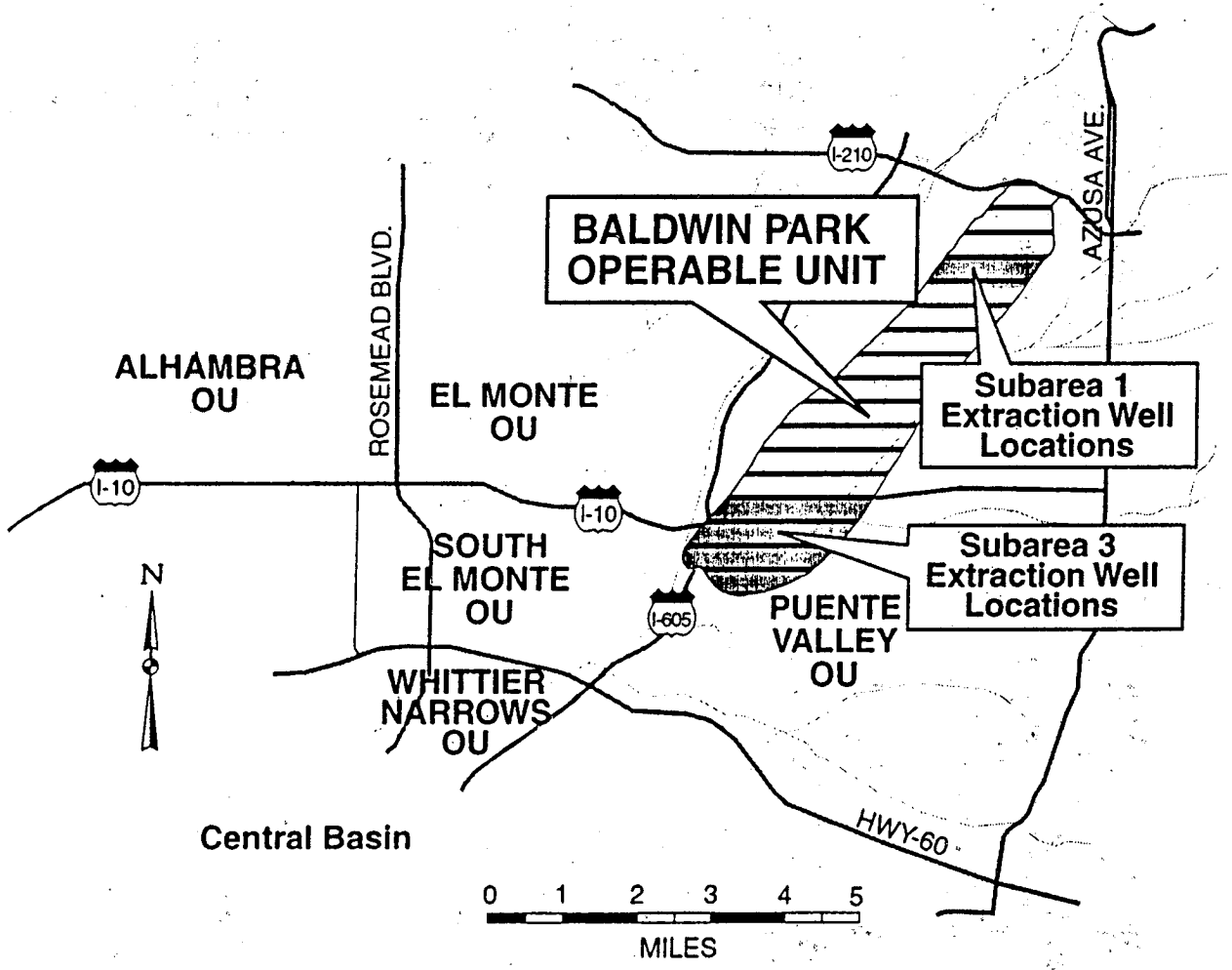
Figure 2

Facility Locations for Recipients of EPA Administrative Order 2000-13 Baldwin Park OU



Appendix B: **Location map of the Baldwin Park Operable Unit**