

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION IX

IN THE MATTER OF:
GLENDALE CHROMIUM OPERABLE
UNIT
Glendale, Los Angeles County, California

Goodrich Corporation, ITT Corporation,
Lockheed Martin Corporation, PRC DeSoto
International, Inc.,
Respondents

ADMINISTRATIVE SETTLEMENT
AGREEMENT AND ORDER ON CONSENT
FOR REMEDIAL INVESTIGATION

U.S. EPA Region IX
CERCLA Docket No. 2011-09

Proceeding Under Sections 104, 107 and 122
of the Comprehensive Environmental
Response, Compensation, and Liability Act, as
amended, 42 U.S.C. §§ 9604, 9607 and 9622.

**ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT
FOR SPECIFIED WORK IN SUPPORT OF A REMEDIAL INVESTIGATION**

TABLE OF CONTENTS

I.	JURISDICTION AND GENERAL PROVISIONS	1
II.	PARTIES BOUND	2
III.	STATEMENT OF PURPOSE.....	2
IV.	DEFINITIONS	2
V.	FINDINGS OF FACT	5
VI.	CONCLUSIONS OF LAW AND DETERMINATIONS	8
VII.	ORDER.....	9
VIII.	DESIGNATION OF CONTRACTORS AND PROJECT COORDINATORS.....	10
IX.	WORK TO BE PERFORMED	12
X.	EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS	15
XI.	QUALITY ASSURANCE, SAMPLING, AND ACCESS TO INFORMATION	17
XII.	SITE ACCESS AND INSTITUTIONAL CONTROLS	19
XIII.	COMPLIANCE WITH OTHER LAWS	20
XIV.	RETENTION OF RECORDS	20
XV.	DISPUTE RESOLUTION	21
XVI.	STIPULATED PENALTIES.....	21
XVII.	FORCE MAJEURE	24
XVIII.	PAYMENT OF RESPONSE COSTS	25
XIX.	COVENANT NOT TO SUE BY EPA	28
XX.	RESERVATIONS OF RIGHTS BY EPA.....	28
XXI.	COVENANT NOT TO SUE BY RESPONDENTS	29
XXII.	OTHER CLAIMS	31
XXIII.	CONTRIBUTION	32
XXIV.	INDEMNIFICATION	32
XXV.	INSURANCE	33
XXVI.	FINANCIAL ASSURANCE	33
XXVII.	INTEGRATION/APPENDICES	35
XXVIII.	ADMINISTRATIVE RECORD	35
XXIX.	EFFECTIVE DATE AND SUBSEQUENT MODIFICATION	36
XXX.	NOTICE OF COMPLETION OF WORK	36

APPENDIX A. LIST OF RESPONDENTS

APPENDIX B. GLENDALE CHROMIUM OPERABLE UNIT SPECIFIED WORK STATEMENT
OF WORK

**ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR
SPECIFIED WORK IN SUPPORT OF A REMEDIAL INVESTIGATION
GLENDALE CHROMIUM OPERABLE UNIT**

I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement" or "Order") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and the parties listed on Appendix A, ("Respondents"). The Order concerns the preparation and performance of Work required for EPA to conduct a complete remedial investigation ("RI") for the Glendale Chromium Operable Unit ("GCOU"), located generally in the vicinity of Glendale, California, within the San Fernando Valley Area 2 Superfund site, ("Site") and the reimbursement of a portion of the response costs incurred by EPA in connection with the RI.

2. This Order is issued under the authority vested in the President of the United States by Sections 104, 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9604, 9607 and 9622 ("CERCLA"). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2926 (Jan. 29, 1987), and further delegated to Regional Administrators on May 11, 1994, by EPA Delegation Nos. 14-14-C and 14-14-D. This authority was further redelegated by the Regional Administrator of EPA Region IX to the Branch Chief (now entitled Assistant Director), Superfund Division, by Regional Delegations R9 1290.15 and R9 1290.20.

3. In accordance with Section 106(a) of CERCLA, 42 U.S.C. § 9606(a), EPA notified the State of California (the "State") on August 27, 2010 of the negotiations that resulted in this Order. In accordance with Sections 104(b)(2) and 122(j)(1) of CERCLA, 42 U.S.C. §§ 9604(b)(2) and 9622(j)(1), EPA notified the United States Department of Interior's Fish and Wildlife Service, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, and the State of California Resources Board's Department of Fish and Game on November 3, 2010 of negotiations with potentially responsible parties regarding the release of hazardous substances that may have resulted in injury to the natural resources under federal and/or State trusteeship.

4. EPA and Respondents recognize that this Order has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Order do not constitute an admission of any liability. Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Order, the validity of the findings of fact, conclusions of law and determinations in Sections V and VI of this Order. Respondents agree to comply with and be bound by the terms of this Order and further agree that they will not contest the basis or validity of this Order or its terms.

II. PARTIES BOUND

5. This Order applies to and is binding upon EPA and upon Respondents and their heirs, successors and assigns. Any change in ownership or corporate status of a Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Order.

6. Respondents are jointly and severally liable for carrying out all activities required by this Order. In the event of the insolvency or other failure of any one or more Respondents to implement the requirements of this Order, the remaining Respondents shall complete all such requirements.

7. Respondents shall ensure that their contractors, subcontractors, and representatives receive a copy of this Order and comply with this Order. Respondents shall be responsible for any noncompliance with this Order.

8. Each undersigned representative of Respondents certifies that he or she is fully authorized to enter into the terms and conditions of this Order and to execute and legally bind Respondents to this Order.

III. STATEMENT OF PURPOSE

9. In entering into this Order, the objectives of EPA and Respondents are: (a) to determine the nature and extent of contamination and any threat to the public health, welfare, or the environment caused by the release or threatened release of chromium at, from, or migrating into certain areas of the GCOU by conducting activities which will facilitate EPA's performance of a remedial investigation, as more specifically set forth in the Statement of Work ("SOW") attached as Appendix B to this Order; and (b) to recover a portion of the response and oversight costs incurred by EPA with respect to the GCOU and this Order.

10. The Work conducted under this Order is subject to approval by EPA and shall provide EPA all appropriate and necessary information to assess conditions at certain areas of the Site and evaluate alternatives to the extent necessary to select a remedy that will be consistent with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300 ("NCP"). Respondents shall conduct all Work under this Order in compliance with CERCLA, the NCP, and all applicable EPA guidances, policies, and procedures. In its sole discretion, EPA may utilize and incorporate the results of Respondents' Work into EPA's RI and/or feasibility study, but EPA will in no way be required or bound to do so.

IV. DEFINITIONS

11. Unless otherwise expressly provided herein, terms used in this Order that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to

them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

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

b. "Day" shall mean a calendar day. 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 close of business of the next working day.

c. "Effective Date" shall be the effective date of this Order as provided in Section XXIX.

d. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

e. "Engineering Controls" shall mean constructed containment barriers or systems that control one or more of the following: downward migration, infiltration or seepage of surface runoff or rain; or natural leaching or anthropogenic migration of contaminants through the subsurface over time. Examples include caps, engineered bottom barriers, immobilization processes, and vertical barriers.

f. "Future Response Costs" shall mean all costs including, but not limited to, direct and indirect costs incurred on or after the Effective Date of this Order in connection with the Work, including but not limited to reviewing or developing plans, reports and other items pursuant to this Order, verifying the Work, or otherwise implementing, overseeing, or enforcing this Order, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, Agency for Toxic Substances and Disease Registry ("ATSDR") costs, the costs incurred pursuant to Paragraph 53 (costs and attorneys fees and any reasonable sums paid to secure access), Paragraph 39 (emergency response) and Paragraph 83 (Work takeover).

g. "Glendale Chromium Operable Unit" or "GCOU" shall mean the operable unit established by EPA in 2007 to study and remediate chromium contamination in the groundwater in the general vicinity of Glendale, California.

h. "Institutional controls" shall mean non-engineered instruments, such as administrative and/or legal controls, that help to minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land and/or resource use. Examples of institutional controls include easements and covenants, zoning restrictions, special building permit requirements, and well drilling prohibitions.

i. "Interest" shall mean interest at the rate specified for interest on investments

of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

j. "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

k. "Order" shall mean this Administrative Settlement Agreement and Order on Consent, the SOW, all appendices attached hereto (listed in Section XXVII) and all documents incorporated by reference into this document including without limitation EPA-approved submissions. EPA-approved submissions (other than progress reports) are incorporated into and become a part of the Order upon approval by EPA. In the event of conflict between this Order and any appendix or other incorporated documents, this Order shall control.

l. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral. References to paragraphs in the SOW will be so identified (for example, "SOW paragraph 15).

m. "Parties" shall mean EPA and Respondents.

n. "Past Response Costs" shall mean all costs including, but not limited to, direct and indirect costs the United States incurs or has incurred in connection with the GCOU prior to the Effective Date of this Order. Past Response Costs also include but shall not be limited to direct and indirect costs that the United States incurs or has incurred up to the Effective Date of this Order in developing, negotiating or preparing this Order, such as payroll costs, contractor costs, travel costs and laboratory costs.

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

p. "Respondents" shall mean those Parties identified in Appendix A.

q. "Section" shall mean a portion of this Order identified by a Roman numeral. References to sections in the SOW will be so identified; for example as "SOW Section V."

r. "Site" shall mean the areas described as the San Fernando Valley Area 2 Superfund Site and the Glendale Study Area, as more specifically defined in the Records of Decision for the Site executed on June 18, 1993.

s. "Specified Work Plan" and "Specified Work Report" shall mean the work plan and work report, respectively, required by the Specified Work Statement of Work set forth

in Appendix B to this Order.

t. "State" shall mean the State of California.

u. "Statement of Work" or "SOW" shall mean the Specified Work Statement of Work for activities required by EPA to develop an RI of the GCOU, as set forth in Appendix B to this Order. The Statement of Work is incorporated into this Order and is an enforceable part of this Order as are any modifications made thereto in accordance with this Order.

v. "Waste Material" shall mean (1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and (4) any "hazardous material" or "hazardous substance" under California law, including California Health & Safety Code §§ 25100 *et seq.*

w. "Work" shall mean all activities, including but not limited to those listed in the Statement of Work, which Respondents are required or agree to perform under this Order, except those required by Section XIV (Retention of Records).

V. FINDINGS OF FACT

12. In 1986, EPA listed four San Fernando Valley Superfund Sites on the National Priorities List ("NPL"), designated Areas 1, 2, 3 and 4, each corresponding to significant contamination found in drinking water well fields in the general vicinity of North Hollywood, Burbank, and Glendale, California. The sites were listed because of high levels of VOCs detected in the area groundwater, in particular trichloroethylene ("TCE") and tetrachloroethylene ("PCE").

13. The Area 2 Site is in the general vicinity of Glendale, California, and was initially divided by EPA into the Glendale North and Glendale South Operable Units. The Glendale North and South Operable Units were primarily concerned with the study and remediation of VOCs in groundwater. PCE was detected at levels of up to 1,500 parts per billion ("ppb") and TCE was detected at levels of up to 280 ppb in Area 2 groundwater in 1985 and 1982, respectively.

14. In 1993, EPA issued two Records of Decision, one each for the Glendale North and South Operable Units ("Glendale RODs"). Each ROD selected an interim remedy that required the construction, operation and maintenance of an extraction well field, treatment of 5000 gallons per minute ("gpm") of the extracted groundwater from both operable units at a combined treatment plant, and delivery of the treated water to the City of Glendale's potable water supply, for twelve (12) years.

15. In August 2000, EPA entered into a consent decree with more than fifty (50)

potentially responsible parties ("PRPs") for the implementation of the Glendale RODs ("Glendale Consent Decree"). The Glendale Consent Decree requires the operation and maintenance of the extraction and treatment systems in accordance with the Glendale RODs. The extraction and treatment systems were built pursuant to unilateral administrative orders issued by EPA while the Glendale Consent Decree was being negotiated. The systems became fully operational in September 2000.

16. Chromium, in particular CrVI, has been detected in the Glendale area groundwater since at least 1999. The California Maximum Contaminant Level ("MCL") for total chromium in drinking water is 50 parts per billion ("ppb"). There currently is not a federal or State MCL for CrVI. In 1998, EPA sponsored a study of potential chromium sources throughout the San Fernando Valley groundwater basin, which was performed by the Los Angeles Regional Water Quality Control Board ("RWQCB") under EPA oversight. That study reviewed over 4,000 potential sources and identified approximately 200 likely sources throughout the basin.

Chromium VI Investigation: San Fernando Valley Phase I: Inspections

Final Report (August 2002). In 2005, EPA performed a study to identify the trends of metals in groundwater for the Glendale and Burbank areas *Burbank and Glendale Operable Units, Focused Chromium Trend Study* (2005) ("Trend Study"). The Trend Study showed that the Glendale area groundwater was at risk for chromium levels to rise to levels that would be unacceptable to serve as drinking water in California. EPA, the RWQCB, and the California Department of Toxic Substances Control ("DTSC") have conducted site-specific investigations of chromium sources in the Glendale area groundwater since 2006. In 2007, EPA designated the GCOU for the purposes of study and remediation of chromium in the Glendale area groundwater.

17. The extraction and treatment systems built pursuant to the Glendale RODs were intended to treat VOCs and were not designed to treat elevated levels of chromium or other metals in large volumes of water. The total chromium in the Glendale interim remedies treated water, before blending with Metropolitan Water District water, is approximately 10.5 ppb, well below the MCL, but certain of the extraction wells for the Glendale interim remedies periodically test above the MCL for total chromium. Although the treated water from the interim remedies is well below the State MCL for total chromium, the City of Glendale has a stated goal of only serving water to its customers with levels of CrVI below 5 ppb. EPA has worked with the City of Glendale and the Glendale Operable Units PRPs to manage the pumping scheme for the interim remedies in order to meet the City's goal. In addition, the Glendale interim remedies require periodic discharges to the Los Angeles River, which at times have approached levels that would exceed discharge limits for surface water. EPA has worked with the City and the Glendale PRPs to implement a chromium demonstration project, pursuant to which a treatment system was installed on well GS-3, to test the efficacy of the weak base anion approach to chromium treatment. In addition, a further chromium demonstration project was installed to test the efficacy of reduction, coagulation and filtration technology on approximately 100 gpm of extracted groundwater at the Glendale Water Treatment Plant. If effective, one or both of these methods of chromium treatment may be incorporated in the Glendale North and South interim

remedies, or in subsequently selected interim or final remedies for those operable units.

18. Respondents each are the owner or operator, or previous owner or operator of facilities from which EPA alleges there has been a release or there is a threatened release of chromium or other metals to soils and/or groundwater from the operations at those facilities.

- a. Respondent ITT Corporation is an Indiana corporation, with its corporate headquarters located at 1133 Westchester Avenue, White Plains, New York. ITT Corporation is the corporate successor to entities that owned and/or operated a facility located at 1200 South Flower Street in Burbank, California, from 1938 to 1994 ("ITT facility"). ITT Corporation, through certain corporate predecessors, conducted manufacturing operations at the ITT facility. ITT Corporation, through corporate predecessors, used and stored hazardous substances at the ITT facility, including but not limited to chromium. Levels of CrVI were detected in soil at the ITT facility in 2004 as high as 2,160 milligrams per kilogram ("mg/kg") ("parts per million" or "ppm") at 2 feet below ground surface ("bgs"). The highest historical concentration of total chromium in groundwater under or around the ITT facility occurred in well MW-21 where the total chromium concentration in well MW-21 was 15,000 ppb in 2002 and 260 ppb in 2003. At well MW-27, CrVI was detected at 2400 ppb in 2007 and 940 ppb in 2010.
- b. Lockheed Martin Corporation ("Lockheed Martin") is the result of a merger between Martin Marietta Corporation and Lockheed Corporation in 1995. Lockheed Martin is a Maryland corporation with its headquarters located at 6801 Rockledge Drive, Bethesda, MD. Lockheed Aeronautical Systems Company ("Lockheed Aero") was a division of Lockheed Corporation that owned and operated several facilities within approximately one mile of the Burbank Airport from 1928 to 2000 ("Lockheed facilities"). Additionally, Lockheed Corporation acquired Loral Librascope, Inc. by merger in 1996. The Loral Librascope, Inc. facility was located at 811 Sonora Avenue, Glendale, California ("Lockheed Librascope facilities"). The Loral Librascope entity is now known as Lockheed Martin NE&SS-Undersea Systems. Lockheed Aero conducted defense manufacturing at the Lockheed facilities. Chromium was identified at the Lockheed facilities in the soil and groundwater. In 2001, total chromium concentrations in the soil were detected as high as 20,000 mg/kg at a depth of 24 feet bgs. Wells B-1-CW12 and B-1-CW18, which are located downgradient of the former dry wells at the B-1 plant site have been detected at 440 ppb CrVI and 490 ppb total chromium, respectively, in 1994. Investigation of the Lockheed Librascope facilities was completed in July 2010.

- c. Respondent Goodrich Corporation and its subsidiary Goodrich Pump and Engine Control Systems, Inc. ("GPECS") are New York corporations with headquarters at 2730 W. Tyvola Road, Charlotte, NC. The former Menasco Aerospace (now doing business as GPECS) owned and operated a facility located at 100 Cedar Avenue in Burbank, California, from 1939 to 1998 ("Menasco facility"). Menasco Aerospace was acquired by Coltec Industries, Inc. in 1977, which merged with Goodrich Corp. in 1999. Menasco Aerospace used and stored hazardous substances at the Menasco facility, including some related to metal finishing operations and to discontinued manufacturing operations. CrVI has been detected in groundwater sampled from a monitoring well on the Menasco facility at levels of up to 1,000,000 µg/L, in 1995, in Well HP-6; 3,400 µg/L in well GW-2 in 2002; and in on-site soils at up to 8,800 mg/kg at 11 ft. bgs in 2007.
- d. PRC DeSoto International, Inc. ("PRC") is a corporation incorporated in the state of California, with its corporate headquarters in Sylmar, California. PRC (and several predecessor entities) operated a facility located at 5430 San Fernando Road in Glendale, California ("PRC facility") from approximately 1949 to the end of 2008. PRC conducted manufacturing at the PRC facility related to aerospace sealants, potting and molding, foams, insulating compounds, and coatings, among others. Total chromium was detected in soil at the PRC facility at 2,100 ppb at 5 feet bgs in 1999. Maximum total chromium was detected in groundwater in well MW-1 at 73,000 ppb in 2002. Maximum total chromium and CrVI were reported in on-site source area well MW-4 at 25,000 and 24,000 ppb, respectively, in 1997. PPG Industries, Inc. ("PPG") purchased PRC in 1999. The property on which the PRC facility was located, was sold in June 1989 to a group of investors dba "5430 Glendale Investors," which in turn sold the property to Target Corporation in mid-2005.

19. Respondents have agreed to conduct the SOW to allow EPA to perform a complete RI to determine the nature and extent of chromium contamination in the GCOU.

20. This Order does not compromise any costs at or in connection with the GCOU.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, EPA has determined that:

21. The GCOU is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. §

9601(9).

22. The contamination, including but not limited to CrVI, found at the GCOU, as identified in the Findings of Fact above, includes "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

23. The conditions described in Paragraphs 16-18 of the Findings of Fact above constitute an actual and/or threatened "release" of a hazardous substance from the facility as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

24. Each Respondent is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

25. Respondents are responsible parties under Sections 104, 107 and 122 of CERCLA, 42 U.S.C. §§ 9604, 9607 and 9622.

a. Each Respondent is a person who at the time of disposal of any hazardous substances owned or operated a facility within the GCOU, or who currently owns such a facility and does not qualify as a bona fide prospective purchaser under Sections 101(40) and 107(r) of CERCLA, 42 U.S.C. §§ 9601(40), 9607(r). Each Respondent therefore may be liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

b. Respondents PRC, ITT Corporation, Lockheed Martin and Goodrich Corp, were each the "owners" and "operators" of one or more facilities at the time of disposal of hazardous substances at the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).

26. The actions required by this Order are necessary to protect the public health, welfare or the environment, are in the public interest, 42 U.S.C. § 9622(a), are consistent with CERCLA and the NCP, 42 U.S.C. §§ 9604(a)(1), 9622(a), and will expedite effective remedial action and minimize litigation, 42 U.S.C. § 9622(a).

27. EPA has determined that Respondents are qualified to conduct the SOW in support of the RI within the meaning of Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), and will carry out the Work properly and promptly, in accordance with Sections 104(a) and 122(a) of CERCLA, 42 U.S.C. §§ 9604(a) and 9622(a), if Respondents comply with the terms of this Order.

VII. ORDER

28. Based upon the foregoing Findings of Fact and Conclusions of Law and Determinations, it is hereby Ordered and Agreed that Respondents shall comply with all provisions of this Order, including, but not limited to, all appendices to this Order and all

documents incorporated by reference into this Order.

VIII. DESIGNATION OF CONTRACTORS AND PROJECT COORDINATORS

29. Selection of Contractors, Personnel. All Work performed under this Order shall be under the direction and supervision of qualified personnel. Within thirty (30) days of the Effective Date of this Order, and before the Work outlined below begins, Respondents shall notify EPA in writing of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants and laboratories to be used in carrying out such Work. With respect to any proposed contractor, Respondents shall demonstrate that the proposed contractor has a quality system which complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," (American National Standard, January 5, 1995, or most recent version), by submitting a copy of the proposed contractor's Quality Management Plan ("QMP"). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)," (EPA/240/B-01/002, March 2001 or subsequently issued guidance) or equivalent documentation as determined by EPA. The qualifications of the persons undertaking the Work for Respondents shall be subject to EPA's review, for verification that such persons meet minimum technical background and experience requirements. This Order is contingent on Respondents' demonstration to EPA's satisfaction that Respondents are qualified to perform properly and promptly the actions set forth in this Order. If EPA disapproves in writing of any person's technical qualifications, Respondents shall notify EPA of the identity and qualifications of the replacements within thirty (30) days of the written notice. If EPA subsequently disapproves of the replacement, EPA reserves the right to terminate this Order and to conduct a complete RI, and to seek reimbursement for costs and penalties from Respondents. During the course of the Work, Respondents shall notify EPA in writing of any changes or additions in the personnel used to carry out such Work, providing their names, titles, and qualifications. EPA shall have the same right to disapprove changes and additions to personnel as it has hereunder regarding the initial notification.

30. Within thirty (30) days after the Effective Date, Respondents shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondents required by this Order and shall submit to EPA the designated Project Coordinator's name, address, telephone number, e-mail address and qualifications. To the greatest extent possible, the Project Coordinator shall be present at the site of the Work or readily available during the Work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondents shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, e-mail address and qualifications within ten (10) days following EPA's disapproval. Respondents shall have the right to change their Project Coordinator, subject to EPA's right to disapprove. Respondents shall notify EPA twenty (20) days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notification. Receipt by Respondents' Project Coordinator of any notice or communication from EPA relating to this Order shall

constitute receipt by Respondents.

31. EPA has designated Lisa Hanusiak of the Superfund Division, Region IX, as its Remedial Project Manager ("RPM"). EPA will notify Respondents of a change of its designated Project Coordinator. Except as otherwise provided in this Order, Respondents shall direct all submissions required by this Order to the RPM at USEPA, Region IX, 75 Hawthorne Street, SFD-7-3, San Francisco, CA 94105. One hard copy and one electronic copy of all correspondence shall be sent to the EPA RPM and to the Superfund Records Center, located at 95 Hawthorne Street, 4th floor, San Francisco, CA, 94105. Electronic copies of deliverables shall also be sent to EPA's technical support contractor(s), who currently are Alex Lapostol, John Lindquist, and David Towell, and who can be contacted at the following addresses:

Alex Lapostol, P.G.
Senior Technical Consultant
E2 Consulting Engineers
Regional Water Quality Control Board --
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2342

John Lindquist
CH2MHill
2525 Airpark Drive
Redding, CA 96001

David Towell
CH2M HILL
1000 Wilshire Boulevard, 21st Floor
Los Angeles, CA 90017

32. EPA's Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager ("RPM") and On-Scene Coordinator ("OSC") by the NCP. In addition, EPA's Project Coordinator shall have the authority consistent with the NCP, to halt any Work required by this Order, and to take any necessary response action when s/he determines that conditions at the Site and/or the GCOU may present an immediate endangerment to public health or welfare or the environment. The absence of the EPA Project Coordinator from the area under study pursuant to this Order shall not be cause for the stoppage or delay of Work.

33. EPA shall arrange for a qualified person to assist in its oversight and review of the conduct of the Work in support of the RI, as required by Section 104(a) of CERCLA, 42 U.S.C. Section 9604(a). Such person shall have the authority to observe Work and make inquiries in the absence of EPA, but not to modify the Specified Work Plan.

IX. WORK TO BE PERFORMED

34. Activities and Deliverables. Respondents shall conduct activities and submit plans, reports or other deliverables as provided by the attached SOW, which is incorporated by reference, for EPA's development of the RI and feasibility study. All such Work shall be conducted in accordance with the provisions of this Order, the SOW, CERCLA, the NCP and EPA guidance, including, but not limited to, the "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" (OSWER Directive # 9355.3-01, October 1988 or subsequently issued guidance), "Guidance for Data Useability in Risk Assessment" (OSWER Directive #9285.7-05, October 1990 or subsequently issued guidance), and guidance referenced therein, and guidances referenced in the SOW, as may be amended or modified by EPA. All Work performed under this Order shall be in accordance with the schedules herein or established in the SOW, as initially approved or modified by EPA, and as may be amended or modified by EPA from time to time. In accordance with the schedules established in this Order or in the SOW, Respondents shall submit to EPA and the RWQCB, copies of all plans, reports and other deliverables required under this Order, the SOW and the Specified Work Plan. All plans, reports and other deliverables will be reviewed and approved by EPA pursuant to Section X (EPA Approval of Plans and Other Submissions). Upon approval by EPA pursuant to Section X (EPA Approval of Plans and Other Submissions), all plans, reports and other deliverables required under this Order, the SOW and the Specified Work Plan shall be incorporated into and become enforceable under this Order. Upon EPA's request, Respondents shall also provide copies of plans, reports or other deliverables to Community Advisory Groups, Technical Assistance Grant recipients or any other entities as directed by EPA. Upon request by EPA, Respondents shall submit in electronic form all portions of any plan, report or other deliverable Respondents are required to submit pursuant to provisions of this Order. EPA will determine the Site-specific objectives of the RI and the Work and devise a general management approach for the Site, as stated in the attached SOW. Respondents shall conduct the remainder of scoping activities as described in the attached SOW and referenced guidances. Nothing in this Order shall be construed to require EPA to incorporate the results of the Work in EPA's RI, or to limit EPA's authority to perform the Work or any other portion of the RI itself.

35. Modification of the Specified Work Plan.

a. If at any time during the process of performing the Work in support of EPA's RI, Respondents identify a need for additional data, Respondents shall submit a memorandum documenting the need for additional data to the EPA RPM within ten (10) days of identification. EPA in its discretion will determine whether the additional data will be collected by Respondents and whether it will be incorporated into plans, reports and other deliverables.

b. In the event of unanticipated or changed circumstances at the GCOU, Respondents shall notify the EPA Project Coordinator by telephone within twenty-four (24) hours of discovery of the unanticipated or changed circumstances. In the event that EPA determines that the immediate threat or the unanticipated or changed circumstances warrant

changes in the Specified Work Plan, EPA shall modify or amend the Specified Work Plan in writing accordingly. Subject to Respondents' right to invoke the procedures set forth in Section V (Dispute Resolution), Respondents shall perform the Specified Work Plan as modified or amended.

c. EPA may determine that in addition to tasks defined in the initially approved Specified Work Plan, other additional Work may be necessary for EPA to complete the RI. This additional Work may include, but shall not be limited to, performance of a Baseline Human Health Risk Assessment and Ecological Risk Assessment ("Risk Assessments") and a Community Relations Plan. In the event that EPA requires Respondents to perform one or both Risk Assessments, such Risk Assessment(s) shall be performed in accordance with the SOW, Specified Work Plan, and applicable EPA guidance, including but not limited to: "Interim Final Risk Assessment Guidance for Superfund, Volume I - Human Health Evaluation Manual (Part A)," (RAGS, EPA-540-1-89-002, OSWER Directive 9285.7-01A, December 1989); "Interim Final Risk Assessment Guidance for Superfund, Volume I - Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments)," (RAGS, EPA 540-R-97-033, OSWER Directive 9285.7-01D, January 1998); "Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments" (ERAGS, EPA-540-R-97-006, OSWER Directive 9285.7-25, June 1997) or subsequently issued guidance. Subject to Respondents' right to invoke the procedures set forth in Section XV (Dispute Resolution), Respondents agree to perform these response actions in addition to those required by the initially approved Specified Work Plan, including any approved modifications, if EPA determines that such actions are necessary to complete the RI.

d. Respondents shall confirm their willingness to perform the additional Work in writing to EPA within seven (7) days of receipt of the EPA request. If Respondents object to any modification determined by EPA to be necessary pursuant to this Paragraph, Respondents may seek dispute resolution pursuant to Section XV (Dispute Resolution). The SOW and/or Specified Work Plan shall be modified in accordance with the final resolution of the dispute.

e. Respondents shall complete the additional Work according to the standards, specifications, and schedule set forth or approved by EPA in a written modification to the Specified Work Plan or written Specified Work Plan supplement. EPA reserves the right to conduct the Work itself at any point, to seek reimbursement from Respondents, and/or to seek any other appropriate relief.

f. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions at the Site.

36. Off-Site Shipment of Waste Material. Respondents shall, prior to any off-site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to EPA's Designated Project Coordinator. However,

this notification requirement shall not apply to any off-site shipments when the total volume of all such shipments will not exceed ten (10) cubic yards.

a. Respondents shall include in the written notification the following information: (1) the name and location of the facility to which the Waste Material is to be shipped; (2) the type and quantity of the Waste Material to be shipped; (3) the expected schedule for the shipment of the Waste Material; and (4) the method of transportation. Respondents shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material 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 the Work in support of the remedial investigation and/or feasibility study. Respondents shall provide the information required by Subparagraph 36.a and 36.c as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

c. Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-site location, Respondents shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents shall only send hazardous substances, pollutants, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

37. Meetings. Respondents shall make presentations at, and participate in, meetings at the request of EPA during the initiation, conduct, and completion of the RI. In addition to discussion of the technical aspects of the RI, topics will include anticipated problems or new issues. Meetings will be scheduled at EPA's discretion.

38. Progress Reports. In addition to the plans, reports and other deliverables set forth in this Order, Respondents shall provide to EPA monthly progress reports by the fifteenth (15th) day of the following month. At a minimum, with respect to the preceding month, these progress reports shall (1) describe the actions which have been taken to comply with this Order during that month, (2) include all results of sampling and tests and all other data received by Respondents, (3) describe Work planned for the next two months with schedules relating such Work to the overall project schedule, and (4) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

39. Emergency Response and Notification of Releases.

a. In the event of any action or occurrence during performance of the Work

which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action. Respondents shall take these actions in accordance with all applicable provisions of this Order, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondents shall also immediately notify the EPA Project Coordinator or, in the event of his/her unavailability, the Regional Duty Officer, Emergency Planning and Response Branch, EPA Region IX, (800) 300-2193, of the incident or Site conditions. In the event that Respondents fail to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondents shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVIII (Payment of Response Costs).

b. In addition, in the event of any release of a hazardous substance from the Site, Respondents shall immediately notify the EPA Project Coordinator, the OSC or Regional Duty Officer at (800) 300-2193 and the National Response Center at (800) 424-8802. Respondents shall submit a written report to EPA within seven (7) days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, *et seq.*

X. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

40. EPA may provide any plans, reports or other deliverables to stakeholders for their review and comment and, at EPA's sole discretion, incorporate comments from the stakeholders, if any, into EPA's own comments. After review of any plan, report or other item that is required to be submitted for approval pursuant to this Order, in a notice to Respondents EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondents modify the submission; or (e) any combination of the above. However, EPA shall not modify a submission without first providing Respondents at least one notice of deficiency and an opportunity to cure within thirty (30) days, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects.

41. In the event of approval, approval upon conditions, or modification by EPA, pursuant to Subparagraph 40(a), (b), (c) or (e), Respondents shall proceed to take any action required by the plan, report or other deliverable, as approved or modified by EPA subject only to their right to invoke the Dispute Resolution procedures set forth in Section XV (Dispute Resolution) with respect to the modifications or conditions made by EPA. Following EPA approval or modification of a submission or portion thereof, Respondents shall not thereafter alter or amend

such submission or portion thereof unless directed by EPA. In the event that EPA modifies the submission to cure the deficiencies pursuant to Subparagraph 40(c) and the submission had a material defect, EPA retains the right to seek stipulated penalties, as provided in Section XVI (Stipulated Penalties).

42. Resubmission.

a. Upon receipt of a notice of disapproval, Respondents shall, within thirty (30) days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other deliverable for approval. Any stipulated penalties applicable to the submission, as provided in Section XVI, shall accrue during the thirty-day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 43 and 44.

b. Notwithstanding the receipt of a notice of disapproval, Respondents shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by EPA. Implementation of any non-deficient portion of a submission shall not relieve Respondents of any liability for stipulated penalties under Section XVI (Stipulated Penalties).

c. Respondents shall not proceed further with any subsequent activities or tasks until receiving EPA approval, approval on condition or modification of the following deliverables: Specified Work Plan, Sampling and Analysis Plan, and Draft Specified Work Report. While awaiting EPA approval, approval on condition or modification of these deliverables, Respondents shall proceed with all other tasks and activities which may be conducted independently of these deliverables, in accordance with the schedule set forth under this Order.

d. For all remaining deliverables not listed above in subparagraph 42.c., Respondents shall proceed with all subsequent tasks, activities and deliverables without awaiting EPA approval on the submitted deliverable. EPA reserves the right to stop Respondents from proceeding further, either temporarily or permanently, on any task, activity or deliverable at any point during the RI.

43. If EPA disapproves a resubmitted plan, report or other deliverable, or portion thereof, EPA may again direct Respondents to correct the deficiencies. EPA shall also retain the right to modify or develop the plan, report or other deliverable. Respondents shall implement any such plan, report, or deliverable as corrected, modified or developed by EPA, subject only to Respondents' right to invoke the procedures set forth in Section XV (Dispute Resolution).

44. If upon resubmission, a plan, report, or other deliverable is disapproved or modified by EPA due to a material defect, Respondents shall be deemed to have failed to submit such plan, report, or other deliverable timely and adequately unless Respondents invoke the dispute resolution procedures in accordance with Section XV (Dispute Resolution) and EPA's action is

revoked or substantially modified pursuant to a Dispute Resolution decision issued by EPA or superseded by an agreement reached pursuant to that Section. The provisions of Section XV (Dispute Resolution) and Section XVI (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or modification is not otherwise revoked, substantially modified or superseded as a result of a decision or agreement reached pursuant to the Dispute Resolution process set forth in Section XV, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XVI.

45. In the event that EPA takes over some of the tasks, but not the preparation of the Specified Work Report, Respondents shall incorporate and integrate information supplied by EPA into the final Specified Work Report, subject to Respondents right to invoke the procedures set forth in Section XV (Dispute Resolution).

46. All plans, reports, and other deliverables submitted to EPA under this Order shall, upon approval or modification by EPA, be incorporated into and enforceable under this Order. In the event EPA approves or modifies a portion of a plan, report, or other deliverable submitted to EPA under this Order, the approved or modified portion shall be incorporated into and enforceable under this Order.

47. Neither failure of EPA to expressly approve or disapprove of Respondents' submissions within a specified time period, nor the absence of comments, shall be construed as approval by EPA. Whether or not EPA gives express approval for Respondents' deliverables, Respondents are responsible for preparing deliverables acceptable to EPA.

XI. QUALITY ASSURANCE, SAMPLING, AND ACCESS TO INFORMATION

48. Quality Assurance. Respondents shall assure that Work performed, samples taken and analyses conducted conform to the requirements of the SOW, the QAPP and guidances identified therein. Respondents will assure that field personnel used by Respondents are properly trained in the use of field equipment and in chain of custody procedures. Respondents shall only use laboratories which have a documented quality system that complies with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by EPA.

49. Sampling.

a. All results of sampling, tests, modeling or other data (including raw data) generated by Respondents, or on Respondents' behalf, in relation to this Order during the period that this Order is effective, shall be submitted to EPA in the next monthly progress report as described in Paragraph 38 of this Order. EPA will make available to Respondents validated data generated by EPA unless it is exempt from disclosure by any federal or state law or regulation.

b. Respondents shall verbally notify EPA at least ten (10) days prior to conducting significant field events as described in the SOW, Specified Work Plan or Sampling and Analysis Plan. At EPA's verbal or written request, or the request of EPA's oversight assistant, Respondents shall allow split or duplicate samples to be taken by EPA (and its authorized representatives) of any samples collected in implementing this Order. All split samples of Respondents shall be analyzed by the methods identified in the QAPP.

50. Access to Information.

a. Except as provided in Subparagraph 50(c), below, Respondents shall provide to EPA and the RWQCB, upon request, copies of all documents and information within their possession or control or that of their contractors or agents relating to activities at the Site 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 and the RWQCB, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

b. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to EPA under this Order to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when it is submitted to EPA, or if EPA has notified Respondents that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondents. Respondents shall segregate and clearly identify all documents or information submitted under this Order for which Respondents assert business confidentiality claims.

c. Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondents assert such a privilege in lieu of providing documents, they shall provide EPA and the RWQCB with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the contents of the document, record, or information; and 6) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

d. No claim of confidentiality shall be made with respect to any data, including,

but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

51. In entering into this Order, Respondents waive any objections to any data gathered, generated, or evaluated by EPA, the State or Respondents in the performance or oversight of the Work that has been verified according to the quality assurance/quality control ("QA/QC") procedures required by the Order or any EPA-approved RI Work Plans or Sampling and Analysis Plans. If Respondents object to any other data relating to the RI, Respondents shall submit to EPA a report that specifically identifies and explains its objections, describes the acceptable uses of the data, if any, and identifies any limitations to the use of the data. The report must be submitted to EPA within fifteen (15) days of the monthly progress report containing the data.

XII. SITE ACCESS AND INSTITUTIONAL CONTROLS

52. If the Site, or any portion of the Site, or any other property where access is needed to implement this Order, is owned or controlled by any of Respondents, such Respondents shall, commencing on the Effective Date, provide EPA, the RWQCB, and their representatives, including contractors, with access at all reasonable times to the Site or portion of the Site, or such other property, for the purpose of conducting any activity related to this Order.

53. Where any action under this Order is to be performed in areas owned by or in possession of someone other than Respondents, Respondents shall use their best efforts to obtain all necessary access agreements within thirty (30) days after the Effective Date, or as otherwise specified in writing by the EPA RPM. Respondents shall immediately notify EPA if after using their best efforts they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondents shall describe in writing their efforts to obtain access. If Respondents cannot obtain access agreements, EPA may either (i) obtain access for Respondents or assist Respondents in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate; (ii) perform those tasks or activities with EPA contractors; or (iii) terminate the Order. Respondents shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XVIII (Payment of Response Costs). If EPA performs those tasks or activities with EPA contractors and does not terminate the Order, Respondents shall perform all other tasks or activities not requiring access to that property, and shall reimburse EPA for all costs incurred in performing such tasks or activities. Respondents shall integrate the results of any such tasks or activities undertaken by EPA into its plans, reports and other deliverables.

54. Notwithstanding any provision of this Order, EPA and the RWQCB retain all of their access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, applicable state law and any other applicable statutes or regulations.

XIII. COMPLIANCE WITH OTHER LAWS

55. Respondents shall comply with all applicable local, state and federal laws and regulations when performing the Work. No local, state, or federal permit shall be required for any portion of any action conducted entirely on-site, including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where any portion of the Work is to be conducted off-site and requires a federal, state or local permit or approval, Respondents shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. This Order is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XIV. RETENTION OF RECORDS

56. During the pendency of this Order and for a minimum of ten (10) years after commencement of construction of any remedial action, each Respondent shall preserve and retain all non-identical copies of documents, records, and other information (including documents, records, or other information in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until ten (10) years after commencement of construction of any remedial action, Respondents shall also instruct their contractors and agents to preserve all documents, records, and other information of whatever kind, nature or description relating to performance of the Work.

57. At the conclusion of this document retention period, Respondents shall notify EPA at least ninety (90) days prior to the destruction of any such documents, records or other information, and, upon request by EPA, Respondents shall deliver any such documents, records, or other information to EPA. Respondents may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondents assert such a privilege, they shall provide EPA with the following: 1) the title of the document, record, or other information; 2) the date of the document, record, or other information; 3) the name and title of the author of the document, record, or other information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or other information; and 6) the privilege asserted by Respondents. However, no documents, records or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

58. Each Respondent hereby certifies individually that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by EPA or the filing of suit against it regarding the Site and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§

9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XV. DISPUTE RESOLUTION

59. Unless otherwise expressly provided for in this Order, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Order. The Parties shall attempt to resolve any disagreements concerning this Order expeditiously and informally.

60. If Respondents object to any EPA action taken pursuant to this Order, including billings for Response Costs, they shall notify EPA in writing of their objection(s) within ten (10) days of such action, unless the objection(s) has/have been resolved informally. EPA and Respondents shall have thirty (30) days from EPA's receipt of Respondents' written objection(s) to resolve the dispute (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA. Such extension may be granted verbally but must be confirmed in writing.

61. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by the Parties, be incorporated into and become an enforceable part of this Order. If the Parties are unable to reach an agreement within the Negotiation Period, an EPA management official at the Assistant Director level or higher will issue a written decision. EPA's decision shall be incorporated into and become an enforceable part of this Order. Respondents' obligations under this Order shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs, and regardless of whether Respondents agree with the decision.

XVI. STIPULATED PENALTIES

62. Respondents shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 63 and 64 for failure to comply with any of the requirements of this Order specified below unless excused under Section XVII (Force Majeure). "Compliance" by Respondents shall include completion of the Work under this Order or any activities contemplated under any Work Plan or other plan approved under this Order, in accordance with all applicable requirements of law, this Order, the SOW, and any plans or other documents approved by EPA pursuant to this Order and within the specified time schedules established by and approved under this Order.

63. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per day for any noncompliance identified in Subparagraph 63(b):

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 2,500	1 st through 14 th day
\$ 5,000	15 th through 30 th day
\$ 10,000	31 st day and beyond

b. Performance of Work and Compliance Milestones

Failure timely to perform Work and/or submit timely or adequate reports or other deliverables according to the schedule approved by EPA pursuant to Paragraphs 34 of this Order and the SOW attached hereto as Appendix B.

Failure to submit timely payment of Past or Future Response Costs pursuant to Section XVIII of this Order.

64. Stipulated Penalty Amounts.

a. The following stipulated penalties shall accrue per violation per day for failure to complete any task required by Paragraph 29 of this Order:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 1,000	1 st through 14 th day
\$ 2,500	15 th through 30 th day
\$ 5,000	31 st day and beyond

b. For any other failure to complete any other task required by this Order:

\$ 500	1 st through 14 th day
\$ 1,000	15 th through 30 th day
\$ 2,500	31 st day and beyond

65. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 83 of Section XX (Reservation of Rights by EPA), Respondents shall be liable for a stipulated penalty in the amount of \$100,000, in addition to reimbursement to EPA of the cost of

the Work performed by EPA.

66. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (1) with respect to a deficient submission under Section X (EPA Approval of Plans and Other Submissions), during the period, if any, beginning on the thirty-first (31st) day after EPA's receipt of such submission until the date that EPA notifies Respondents of any deficiency; and (2) with respect to a decision by the EPA Management Official designated in Paragraph 61 of Section XV (Dispute Resolution), during the period, if any, beginning on the twenty-first (21st) day after the Negotiation Period begins until the date that the EPA Management Official issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Order.

67. Following EPA's determination that Respondents have failed to comply with a requirement of this Order, EPA may give Respondents written notification of the same and describe the noncompliance. EPA may send Respondents a written demand for the payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondents of a violation.

68. All penalties accruing under this Section shall be due and payable to EPA within thirty (30) days of Respondents' receipt from EPA of a demand for payment of the penalties, unless Respondents invoke the dispute resolution procedures in accordance with Section XV (Dispute Resolution). All payments to EPA under this Section shall be paid by certified or cashier's check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to

USEPA
Fines and Penalties
Cincinnati Finance Center
P.O. Box 979077
St. Louis, MO 63197-9000

shall indicate that the payment is for stipulated penalties, and shall reference EPA Region IX; Site/Spill ID Number 09N2, OU4; and the EPA Docket Number 2011-09, and the name and address of the party(ies) making payment. Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s) shall be sent to EPA as provided in Paragraph 31, and to:

Gregory Pennington
Cost Recovery Specialist, SFD-7-5
United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105

Lisa Hanusiak
Remedial Project Manager, SFD-7-3
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

69. The payment of penalties shall not alter in any way Respondents' obligation to complete performance of the Work required under this Order.

70. Penalties shall continue to accrue as provided in Paragraph 66 during any dispute resolution period, but need not be paid until fifteen (15) days after the dispute is resolved by agreement or by receipt of EPA's decision.

71. If Respondents fail to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondents shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 68.

72. Nothing in this Order shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondents' violation of this Order or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 122(l) of CERCLA, 42 U.S.C. § 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of willful violation of this Order or in the event that EPA assumes performance of a portion or all of the Work pursuant to Section XX (Reservation of Rights by EPA), Paragraph 83. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Order.

XVII. FORCE MAJEURE

73. Respondents agree to perform all requirements of this Order within the time limits established under this Order, unless the performance is delayed by a *force majeure*. For purposes of this Order, *force majeure* is defined as any event arising from causes beyond the control of Respondents or of any entity controlled by Respondents, including but not limited to their contractors and subcontractors, which delays or prevents performance of any obligation under this Order despite Respondents' best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

74. If any event occurs or has occurred that may delay the performance of any obligation under this Order, whether or not caused by a *force majeure* event, Respondents shall notify EPA

orally within forty-eight hours (48) of when Respondents first knew that the event might cause a delay. Within five (5) days thereafter, Respondents shall provide to EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Respondents from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

75. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Order that are affected by the *force majeure* event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, EPA will notify Respondents in writing of its decision. If EPA agrees that the delay is attributable to a *force majeure* event, EPA will notify Respondents in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XVIII. PAYMENT OF RESPONSE COSTS

76. Partial Payment of Past Response Costs.

a. Within thirty (30) days after the Effective Date, Respondents shall pay to EPA seven hundred and fifty thousand dollars (\$750,000) as a partial payment of the United States' Past Response Costs. The payment shall be made to EPA by Electronics Funds Transfer ("EFT") or by check. If payment is made by EFT, it shall be in accordance with current EFT procedures to be provided to Respondents by EPA Region IX, and shall be accompanied by a statement identifying the name and address of the party(ies) making payment; the Site name; EPA Region IX; Site/Spill ID Number 09N2, OU4; and the EPA docket number for this action. If payment is made by check, each check shall identify the name and address of the party(ies) making payment; the Site name; EPA Region IX; Site/Spill ID Number 09N2 OU4; and the EPA docket number for this action, and shall be sent to:

USEPA
Superfund Payments
Cincinnati Finance Center
P.O. Box 979076
St. Louis, MO 63197-9000

b. At the time of payment, Respondents shall send notice that payment has been made to:

Lisa Hanusiak
Remedial Project Manager, SFD-7-3
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

c. The total amount of seven hundred and fifty thousand dollars (\$750,000) to be paid by Respondents pursuant to Subparagraph 76.a shall be deposited in the Glendale Operable Units or Glendale Chromium Operable Unit Special Account(s) within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

77. Payments of Future Response Costs.

a. Respondents shall pay EPA all Future Response Costs not inconsistent with the NCP. On a periodic basis, EPA will send Respondents a bill requiring payment that includes a SCORES or any successor report developed by EPA, which includes direct and indirect costs incurred by EPA and its contractors. Respondents shall make all payments within thirty (30) days of receipt of each bill requiring payment, except as otherwise provided in Paragraph 78 of this Order. Respondents shall make all payments required by this Paragraph by a certified or cashier's check or checks made payable to "EPA Hazardous Substance Superfund," referencing the name and address of the party(ies) making payment and EPA Site/Spill ID number 09N2 0U4. Respondents shall send the check(s) to:

USEPA
Superfund Payments
Cincinnati Finance Center
P.O. Box 979076
St. Louis, MO 63197-9000

b. At the time of payment, Respondents shall send notice that payment has been made to:

Lisa Hanusiak
Remedial Project Manager, SFD-7-3
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

c. The total amount to be paid by Respondents pursuant to Subparagraph 77.a shall be deposited in the Glendale Operable Units or Glendale Chromium Operable Unit Special Account(s) within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

78. If Respondents do not pay seven hundred and fifty thousand dollars (\$750,000) in Past Response Costs within thirty (30) days of the Effective Date, or do not pay Future Response Costs within thirty (30) days of Respondents' receipt of a bill, Respondents shall pay Interest on the unpaid balance of the seven hundred and fifty thousand dollars (\$750,000) of Past Response Costs and Future Response Costs, respectively. The Interest on unpaid Past Response Costs shall begin to accrue on the Effective Date and shall continue to accrue until the date of payment. The Interest on unpaid Future Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. If EPA receives a partial payment, Interest shall accrue on any unpaid balance. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section, including but not limited to, payments of stipulated penalties pursuant to Section XVI. Respondents shall make all payments required by this Paragraph in the manner described in Paragraph 77.

79. Respondents may contest payment of any Future Response Costs under Paragraph 77 if they determine that EPA has made an accounting error or if they believe EPA incurred excess costs as a direct result of an EPA action that was inconsistent with the NCP or outside the scope of this Order. Such objection shall be made in writing within thirty (30) days of receipt of the bill and must be sent to the EPA RPM. Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, Respondents shall within the thirty (30) day period pay all uncontested Future Response Costs to EPA in the manner described in Paragraph 77. Simultaneously, Respondents shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the state of California and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondents shall send to the EPA Project Coordinator a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, Respondents shall initiate the Dispute Resolution procedures in Section XV (Dispute Resolution). If EPA prevails in the dispute, within five (5) days of the resolution of the dispute, Respondents shall pay the sums due (with accrued interest) to EPA in the manner described in Paragraph 77. If Respondents prevail concerning any aspect of the contested costs, Respondents shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to EPA in the manner described in Paragraph 77. Respondents shall be disbursed any balance of the escrow account. The

dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XV (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondents' obligation to reimburse EPA for its Future Response Costs.

XIX. COVENANT NOT TO SUE BY EPA

80. In consideration of the actions that will be performed and the payments that will be made by Respondents under the terms of this Order, and except as otherwise specifically provided in this Order, EPA covenants not to sue or to take administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work, seven hundred and fifty thousand dollars (\$750,000) of Past Response Costs, and Future Response Costs. Under the terms of this Order, Respondents are agreeing to pay seven hundred and fifty thousand dollars (\$750,000) of Past Response Costs; however, all claims for any unrecovered cost amounts above seven hundred and fifty thousand dollars (\$750,000) are hereby reserved, and nothing in this Order shall be a defense to recovery of such costs. This covenant not to sue shall take effect upon receipt by EPA of the partial Past Response Cost payment of seven hundred and fifty thousand dollars (\$750,000) due under Section XVIII of this Order and any Interest or Stipulated Penalties due for failure to pay Past Response Costs as required by Sections XVIII and XVI of this Order. This covenant not to sue is conditioned upon the complete and satisfactory performance by Respondents of their obligations under this Order, including, but not limited to, payment of Future Response Costs pursuant to Section XVIII. This covenant not to sue extends only to Respondents and does not extend to any other person.

XX. RESERVATIONS OF RIGHTS BY EPA

81. Except as specifically provided in this Order, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable law.

82. The covenant not to sue set forth in Section XIX above does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Order is without prejudice to, all rights against Respondents with respect to all other matters, including, but not limited to:

- a. claims based on a failure by Respondents to meet a requirement of this Order;
- b. liability for any and all Past Response Costs in excess of seven hundred and fifty thousand dollars (\$750,000), the partial Past Response Cost payment required by this Order,

or costs not included within the definitions of Past Response Costs; liability for costs that the United States will incur with regard to the Site but which are not included within the definition of Future Response Costs;

- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and
- g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

83. Work Takeover. In the event EPA determines that Respondents have ceased implementation of any portion of the Work, are seriously or repeatedly deficient or late in their performance of the Work, or are implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. Respondents may invoke the procedures set forth in Section XV (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by EPA in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Respondents shall pay pursuant to Section XVIII (Payment of Response Costs). Notwithstanding any other provision of this Order, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XXI. COVENANT NOT TO SUE BY RESPONDENTS

84. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, seven hundred and fifty thousand dollars (\$750,000) of Past Response Costs, Future Response Costs, or this Order, including, but not limited to:

- a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;
- b. any claim arising out of the Work or arising out of the response actions for which the seven hundred and fifty thousand dollars (\$750,000) of Past Response Costs or all Future Response Costs have or will be incurred, including any claim under the United States

Constitution, the California Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work or payment of seven hundred and fifty thousand dollars (\$750,000) of Past Response Costs or any and all Future Response Costs.

Provided, however, that nothing in this Settlement Agreement is intended to alter in any way the rights and obligations of the parties under: (1) the Consent Decree entered January 20, 2000 in the U.S. District Court (Central District of California) in United States v. Lockheed Martin Corporation et al. (Consolidated Cases No. 91-4527-MRP and No. 97-4214-MRP) ("the 2000 Consent Decree"); and (2) Settlement Agreement entered September 6, 2000, between the United States, acting through the United States Department of Defense, Defense Contract Management Agency, and Lockheed Martin Corporation addressing discontinued operations including the San Fernando Valley Superfund Sites (the "2000 Settlement Agreement").

Subject to the 2000 Consent Decree and the 2000 Settlement Agreement, and specifically (without limitation) the terms thereof respecting the avoidance of any double recovery, nothing in this Settlement Agreement shall be construed as a waiver by Respondents of any rights they may have to include costs incurred due to this Settlement Agreement, which have not been paid or reimbursed by the United States pursuant to the 2000 Consent Decree or any other agreement, in any of their proposals of allowable costs for purposes of costing or pricing pursuant to contracts with the United States. Nothing in the Settlement Agreement shall be construed to create or recognize any such right. The incurrence or payment of any costs by the Respondents pursuant to this Settlement Agreement, or inclusion of such costs in the Respondents' proposals for purpose of costing or pricing of contracts with the United States, does not, in and of itself, render such costs allocable or allowable for Government contracting purposes. For Government contracting purposes, the cost incurred in implementing this Agreement remain subject to the applicable provisions of (1) the Federal Acquisition Regulation ("FAR") and Cost Accounting Standards ("CAS"), (2) agency implementing regulations of FAR, (3) the contract(s) between the Respondents and the United States pursuant to which such costing or pricing proposals are submitted, and (4) any determination by the cognizant Contracting Officer concerning allocability and allowability of such costs, subject to any right of appeal Respondents may have under the applicable contract(s) or the FAR. Notwithstanding any other provision of this Agreement, Respondents agree that they will not claim or include, as allowable costs for purposes of costing or pricing pursuant to contracts with the United States, any amounts they may pay as Stipulated Penalties pursuant to Section XVI of the Settlement Agreement (Stipulated Penalties), and any such stipulated penalties shall be treated by Respondents as unallowable costs.

85. These covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 82 (b), (c), and (e) - (g), but only to the extent that Respondents' claims arise from the same response action,

response costs, or damages that the United States is seeking pursuant to the applicable reservation.

86. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

87. Claims Against De Minimis and Ability to Pay Parties. Respondents agree not to assert any claims and to waive all claims or causes of action (including but not limited to claims or causes of action under Sections 107(a) and 113 of CERCLA) that they may have for all matters relating to the Site against any person that has entered or in the future enters into a final CERCLA § 122(g) de minimis settlement, or a final settlement based on limited ability to pay, with EPA with respect to the Site. This waiver shall not apply with respect to any defense, claim, or cause of action that a Respondent may have against any person if such person asserts a claim or cause of action relating to the Site against such Respondent.

88. With respect to any suit or claim brought by them for matters related to this Order, Respondents shall notify the United States and the State in writing no later than 60 days prior to the initiation of such suit or claim. Also, with respect to any suit or claim brought against them for matters related to this Order, Respondents shall notify in writing the United States and the State within ten days of service of the complaint on Respondents. In addition, Respondents shall notify the United States and the State within ten days of service or receipt of any Motion for Summary Judgment and within ten days of receipt of any order from a court setting a case for trial.

XXII. OTHER CLAIMS

89. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents.

90. Except as expressly provided in Section XXI, nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against Respondents or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607. Nothing in this Order diminishes the right of the United States, pursuant to Sections 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

91. No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXIII. CONTRIBUTION

92. The Parties agree that this Order constitutes an administrative settlement for purposes of Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. § 9613(f)(2) and § 122(h)(4), and that each Respondent is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. § 9613(f)(2), § 9622 (h)(4), or as may be otherwise provided by law, for "matters addressed" in this Order. The "matters addressed" in this Order are the Work, seven hundred and fifty thousand dollars (\$750,000) of Past Response Costs, and Future Response Costs. Provided, however, that if the United States exercises rights under the reservations in Section XX (Reservation of Rights by EPA), other than in Paragraphs 82.a (claims for failure to meet a requirement of the settlement) or 82.d (criminal liability), the "matters addressed" in this Order will no longer include those response costs or response actions that are within the scope of the exercised reservation. The Parties agree that this Order constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), pursuant to which Respondents have, as of the Effective Date, resolved their liability to the United States for the Work, seven hundred and fifty thousand dollars (\$750,000) of Past Response Costs, and Future Response Costs. Nothing in this Order precludes the United States or Respondents from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any person(s) not party(ies) to this Order. Nothing herein diminishes the right of the United States, pursuant to Sections 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2) and (3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

XXIV. INDEMNIFICATION

93. Respondents shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Order. In addition, Respondents agree to pay the United States all 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 claims made against the United States based on negligent or other wrongful 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. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondents in carrying out activities pursuant to this Order. Neither Respondents nor any such contractor shall be considered an agent of the United States.

94. The United States shall give Respondents notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondents prior to settling such claim.

95. Respondents waive all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site. In addition, Respondents shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site.

XXV. INSURANCE

96. At least thirty (30) days prior to commencing any On-Site Work under this Order, Respondents and/or their contractors or subcontractors shall secure, and shall maintain for the duration of this Order, comprehensive general liability insurance and automobile insurance with limits of \$ 1,000,000 (one million dollars), combined single limit, naming the EPA as an additional insured with regard to the Work in this Order. Within the same period, Respondents shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondents shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Order, Respondents shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Order. If Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondents need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXVI. FINANCIAL ASSURANCE

97. Within thirty (30) days of the Effective Date, Respondents shall establish and maintain financial security for the benefit of EPA in the amount of \$ 3,000,000 (three million dollars) in one or more of the following forms, in order to secure the full and final completion of Work by Respondents:

- a. a surety bond unconditionally guaranteeing payment and/or performance of the Work;
- b. one or more irrevocable letters of credit, payable to or at the direction of EPA, issued by financial institution(s) acceptable in all respects to EPA equaling the total estimated cost of the Work;
- c. a trust fund administered by a trustee acceptable in all respects to EPA;

d. a policy of insurance issued by an insurance carrier acceptable in all respects to EPA, which ensures the payment and/or performance of the Work;

e. a corporate guarantee to perform the Work provided by one or more parent corporations or subsidiaries of Respondents, or by one or more unrelated corporations that have a substantial business relationship with at least one of Respondents; including a demonstration that any such company satisfies the financial test requirements of 40 C.F.R. Part 264.143(f); and/or

f. a corporate guarantee to perform the Work by one or more of Respondents, including a demonstration that any such Respondent satisfies the requirements of 40 C.F.R. Part 264.143(f).

If any Respondent(s) who seek to provide a demonstration under 40 C.F.R. § 264.143(f) have provided a similar demonstration at other RCRA or CERCLA Sites, Respondents to provide documentation of the prior demonstration and the amount for which they are providing financial assurance at those sites shall be added to the estimated costs of the Work for this Paragraph.

98. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondents shall, within thirty (30) days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in Paragraph 97, above. In addition, if at any time EPA notifies Respondents that the anticipated cost of completing the Work has increased, then, within thirty (30) days of such notification, Respondents shall obtain and present to EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Respondents' inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Order.

99. If Respondents seek to ensure completion of the Work through a guarantee pursuant to Subparagraph 97.e. or 97.f. of this Order, Respondents shall (i) demonstrate to EPA's satisfaction that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f); and (ii) resubmit sworn statements conveying the information required by 40 C.F.R. Part 264.143(f) annually, on the anniversary of the Effective Date, to EPA. For the purposes of this Order, wherever 40 C.F.R. Part 264.143(f) references "sum of current closure and post-closure costs estimates and the current plugging and abandonment costs estimates," the current cost estimate of \$3,000,000 for the Work at the Site shall be used in relevant financial test calculations.

100. If, after the Effective Date, Respondents can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 97 of this Section, Respondents may, on any anniversary date of the Effective Date, or at any other time

agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondents shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from EPA. In the event of a dispute, Respondents may seek dispute resolution pursuant to Section XV (Dispute Resolution). Respondents may reduce the amount of security in accordance with EPA's written decision resolving the dispute.

101. Respondents may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by EPA, provided that EPA determines that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondents may change the form of the financial assurance only in accordance with the written decision resolving the dispute.

XXVII. INTEGRATION/APPENDICES

102. This Order and its appendices and any deliverables, technical memoranda, specifications, schedules, documents, plans, reports (other than progress reports), etc. that will be developed pursuant to this Order and become incorporated into and enforceable under this Order constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Order. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Order. The following appendices are attached to and incorporated into this Order:

"Appendix A" is the list of the Respondents and their current or former facilities within the GCOU.

"Appendix B" is the SOW.

XXVIII. ADMINISTRATIVE RECORD

103. EPA will determine the contents of the administrative record file for selection of the remedial action. Respondents shall submit to EPA documents developed during the course of the Work and EPA's RI/FS upon which selection of the response action may be based. Upon request of EPA, Respondents shall provide copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports and other reports. Upon request of EPA, Respondents shall additionally submit any previous studies conducted under state, local or other federal authorities relating to selection of the response action, and all communications between Respondents and state, local or other federal authorities concerning selection of the response action. At EPA's discretion, Respondents shall establish a community information repository at or near the Site, to house one copy of the administrative record.

XXIX. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

104. This Order shall be effective five days after the Order is signed by the Assistant Director of the Superfund Division.

105. This Order may be amended by mutual agreement of EPA and Respondents. Amendments shall be in writing and shall be effective when signed by EPA. EPA Project Coordinators do not have the authority to sign amendments to the Order.

106. No informal advice, guidance, suggestion, or comment by the EPA Project Coordinator or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified.

XXX. NOTICE OF COMPLETION OF WORK

107. When EPA determines that all Work has been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, including but not limited to site access and institutional controls (Section XII), payment of response costs (Section XVIII) and records retention (Section XIV), EPA will provide written notice to Respondents. If EPA determines that any such Work has not been completed in accordance with this Order, EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify any Work Plan(s) in support of EPA's RI, if appropriate, in order to correct such deficiencies, in accordance with Paragraph 35 (Modification of the Specified Work Plan). Failure by Respondents to implement any approved modified Work Plan(s) in support of EPA's RI shall be a violation of this Order.

Agreed this ___ day of _____, 2011.

For Respondent ITT Corporation

By: _____
Title: _____

Agreed this ___ day of _____, 2011.

For Respondent Goodrich Corporation

By: _____
Title: _____

XXIX. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

104. This Order shall be effective five days after the Order is signed by the Assistant Director of the Superfund Division.

105. This Order may be amended by mutual agreement of EPA and Respondents. Amendments shall be in writing and shall be effective when signed by EPA. EPA Project Coordinators do not have the authority to sign amendments to the Order.

106. No informal advice, guidance, suggestion, or comment by the EPA Project Coordinator or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified.

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107. When EPA determines that all Work has been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, including but not limited to site access and institutional controls (Section XII), payment of response costs (Section XVIII) and records retention (Section XIV), EPA will provide written notice to Respondents. If EPA determines that any such Work has not been completed in accordance with this Order, EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify any Work Plan(s) in support of EPA's RI, if appropriate, in order to correct such deficiencies, in accordance with Paragraph 35 (Modification of the Specified Work Plan). Failure by Respondents to implement any approved modified Work Plan(s) in support of EPA's RI shall be a violation of this Order.

Agreed this 8th day of February, 2011.

For Respondent ITT Corporation

By: Burt M. Feak
Title: Vice President and Corporate Secretary

Agreed this ___ day of _____, 2011.

For Respondent Goodrich Corporation

By: _____
Title: _____

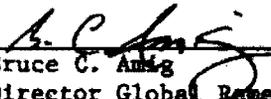
Order, unless it is formally modified.

XXX. NOTICE OF COMPLETION OF WORK

107. When EPA determines that all Work has been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, including but not limited to site access and institutional controls (Section XII), payment of response costs (Section XVIII) and records retention (Section XIV), EPA will provide written notice to Respondents. If EPA determines that any such Work has not been completed in accordance with this Order, EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify any Work Plan(s) in support of EPA's RI, if appropriate, in order to correct such deficiencies, in accordance with Paragraph 35 (Modification of the Specified Work Plan). Failure by Respondents to implement any approved modified Work Plan(s) in support of EPA's RI shall be a violation of this Order.

Agreed this ^x 24 day of January, 2010.

For Respondent Goodrich Pump & Engine Control Systems, Inc.

By: 
Bruce C. Amberg
Title: Director Global Remediation Services

It is so ORDERED AND AGREED this _____ day of _____, 2010.

BY: _____ DATE: _____

Name

Kathleen Salyer

Assistant Director, Superfund Division

Site Cleanup Branch

Region IX

U.S. Environmental Protection Agency

EFFECTIVE DATE: _____

Agreed this 7th day of February, 2011.

For Respondent PRC DeSoto International, Inc.

By: Barry N. Gillespie
Title: President & CEO



Agreed this ___ day of _____, 2011.

For Respondent Lockheed Martin Corporation

By: _____

Title: _____

It is so ORDERED AND AGREED this _____ day of _____, 2010.

BY: _____ DATE: _____

Name

Kathleen Salyer

Assistant Director, Superfund Division

Site Cleanup Branch

Region IX

U.S. Environmental Protection Agency

EFFECTIVE DATE: _____

Agreed this ___ day of _____, 2011.

For Respondent PRC DeSoto International, Inc.

By: _____

Title: _____

Agreed this 11th day of February, 2011.

For Respondent Lockheed Martin Corporation

By: David J. C. Constable

Title: Vice President, Energy, Environment, Safety and Health

It is so ORDERED AND AGREED this _____ day of _____, 2010.

BY: _____ DATE: _____

Name

Kathleen Salyer

Assistant Director, Superfund Division

Site Cleanup Branch

Region IX

U.S. Environmental Protection Agency

EFFECTIVE DATE: _____

Agreed this ___ day of _____, 2011.

For Respondent PRC DeSoto International, Inc.

By: _____

Title: _____

Agreed this ___ day of _____, 2011.

For Respondent Lockheed Martin Corporation

By: _____

Title: _____

It is so ORDERED AND AGREED this 28th day of February, 2011.

BY: Kathleen Salyer DATE: 2/28/11

Name

Kathleen Salyer

Assistant Director, Superfund Division

Site Cleanup Branch

Region IX

U.S. Environmental Protection Agency

EFFECTIVE DATE: _____

APPENDIX A

**TO ADMINISTRATIVE SETTLEMENT AGREEMENT
AND ORDER ON CONSENT FOR REMEDIAL INVESTIGATION**

**U.S. EPA REGION IX
CERCLA Docket No. 2011-08**

LIST OF RESPONDENTS

RESPONDENT	CORPORATE HEADQUARTERS
Goodrich Corporation	2730 W. Tyvola Road Charlotte, NC 28217
ITT Corporation	1133 Westchester Avenue White Plains, NY 10604
Lockheed Martin Corporation	6801 Rockledge Drive Bethesda, MD 20817
PRC DeSoto International Inc.	12780 San Fernando Road Sylmar, CA 91342

APPENDIX B

**San Fernando Valley (Area 2) Superfund Site
Glendale Chromium Operable Unit**

**Specified Work
Statement of Work**

1. Purpose

The purpose of this Statement of Work (SOW) is to describe investigations of groundwater and soil geochemical properties to be conducted by potentially responsible parties (referred to herein as Respondents) at the San Fernando Valley (SFV) Superfund Site (Area 2), Glendale Chromium Operable Unit (GCOU). The SOW involves the investigation and study of hexavalent chromium in groundwater at specified locations in Area 2 (Crystal Springs) of the SFV Superfund Sites.

This SOW sets forth the framework and requirements for performing data collection and analysis and as necessary the installation of specified groundwater monitoring wells and borings, conducting geochemical testing and preparing a Conceptual Site Model, referred to herein as the "Specified Work."

This SOW identifies activities to better identify and understand the nature and extent of hexavalent chromium contamination in the GCOU. It furthermore recognizes that a Focused Feasibility Study (FFS) for updating the existing Glendale Operable Unit (GOU) interim volatile organic compound (VOC) remedy is also being conducted. The FFS also involves supplemental characterization of groundwater conditions for VOCs as well as emerging chemicals including hexavalent chromium. Work under this SOW and the FFS will be coordinated, therefore, by EPA and the respective respondents to avoid any duplication of effort.

The Specified Work shall be conducted in accordance with an agreed to enforcement mechanism with regard to Respondents' obligations, this SOW, and relevant EPA guidance (see the References Section for a partial list of guidance).

2. Site Background

The SFV Superfund Sites are located in the eastern portion of the SFV between the San Gabriel and Santa Monica Mountains. There are four separate areas comprising the San Fernando Superfund Sites: Area 1 (North Hollywood and Burbank), Area 2 (Crystal Springs), Area 3 (Verdugo; removed from the National Priorities List (NPL) in 2004), and Area 4 (Pollock).

In 1980, after finding organic chemicals in the groundwater of the San Gabriel Valley, the California Department of Health Services (DHS) requested all major groundwater users to conduct tests for the presence of certain industrial chemicals in the water they were serving. The test results revealed volatile organic compounds (VOCs) in the groundwater beneath large areas of the SFV. The primary chemicals of concern (COCs) were the solvents trichloroethene (TCE) and tetrachloroethene (PCE), widely used in a variety of industries including metal plating, machinery degreasing, and dry cleaning.

The Federal Maximum Contaminant Level (MCL) for drinking water is 5 parts per billion (ppb) or micrograms per liter ($\mu\text{g/L}$) for each of these two VOCs. (Concentration units of ppb and $\mu\text{g/L}$ are equivalent in describing concentrations of contaminants in groundwater.) The state of California (State) Primary MCL for drinking water is also 5 ppb for TCE and PCE. Other VOCs in the SFV have also been detected above the federal and/or State MCLs. The water agencies of the SFV closely monitor the quality of drinking water delivered to residents. The water must meet all federal and state requirements and be safe to drink.

In 1984, EPA proposed the SFV Superfund Sites (Areas 1 through 4) for inclusion on the NPL. The original boundaries of the four Areas were based on drinking water well fields that were known to contain VOCs in 1984. In 1986, the four Areas were included on the NPL as individual Superfund Sites. EPA coordinates the work on the four sites and has identified specific operable units within the sites for the purpose of implementing interim remedies.

EPA is currently focusing its efforts on five operable units (OUs) within Areas 1 and 2 of the SFV Superfund Sites to accelerate investigation and cleanup of the areas. EPA has signed interim Records of Decision (RODs) and implemented interim remedies for four OUs in the SFV: North Hollywood OU (1987 and 2009) and Burbank OU (1989) within Area 1, and Glendale North and South OUs (1993) within Area 2. The North Hollywood OU Interim Remedy began operating in 1989, and the Burbank OU interim remedy has been operational since 1996. The Interim Remedy in the Glendale North and South OUs began partial operation in August 2000 and achieved full operation capacity in June 2002.

A pump-and-treat approach was selected as the interim remedy for both Glendale OUs. There are four groundwater extraction wells in the Glendale North OU (GNOU) and four groundwater extraction wells in the Glendale South OU (GSOU). Groundwater is pumped from both the GNOU and GSOU wells to a combined 5,000 gallon per minute treatment plant located between the two extraction well fields. The treatment plant is owned and operated by the City of Glendale, and the treated water is incorporated into the City's water supply system. The groundwater treatment system started operation in 2000.

The 2008 Five-Year Review Report for Area 2 (First Five-Year Review Report For San Fernando Valley - Area 2 Superfund Site, Los Angeles County, California, September 2008) found that the interim remedy is generally functioning as designed. However, operational issues resulting from the presence of chromium and other "emerging contaminants" (ECs) have impacted the remedy and resulted in a limited loss of plume capture. The impact of ECs on the interim remedy is one of the tasks being addressed in the FFS in the GOU.

The GCOU was established in 2007 after a 4-year chromium study conducted by the Los Angeles Regional Water Quality Control Board (LARWQCB) and funded by EPA (LARWQCB, 2002a and 2002b), and a subsequent EPA evaluation (CH2M HILL, 2005). The study and evaluation revealed total and hexavalent chromium above the MCL of 50 ppb total dissolved chromium in areas of groundwater throughout the eastern SFV and a large number of potential chromium sources. A MCL for hexavalent chromium has not been established by the State or EPA. The goal of the GCOU is to select an appropriate regional remedy for chromium in groundwater in Area 2. Specific known and suspected chromium sources are also being investigated and cleaned up under the direction of LARWQCB, the California Department of Toxic Substances Control (DTSC) and EPA.

Since completion of the remedial investigation for the SFV in 1992 (James M. Montgomery & Associates, Inc., 1992), EPA and other entities have continued to monitor groundwater in the eastern SFV. The monitoring program consists of periodic sampling of over 500 groundwater wells located throughout the eastern portion of the SFV by EPA, municipal water purveyors, and potentially responsible parties. Data generated from these sampling events are used to estimate and map the extent of TCE, PCE, nitrate, and chromium in groundwater.

At many sampling locations in Area 2 where both total chromium and hexavalent chromium data are available, their reported concentrations are approximately equal. This is because hexavalent chromium is the dominant dissolved chromium species in many of the groundwater samples. Chromium concentrations exceeding 5 ppb are present in shallow groundwater in Area 2 within a general geographic subset of the TCE and PCE concentrations. Chromium concentrations in groundwater decrease rapidly with depth, and are infrequently detected above the total chromium MCL at depths greater than 100 feet below the water table.

The timing of chromium releases to groundwater at most of the facilities under investigation is difficult to precisely identify, but releases likely began with the build-up of the post-World War II aerospace industry in the valley. Historical chromium concentration data for SFV groundwater samples are often limited to relatively few sampling events, or are limited spatially to dense clusters of monitoring wells near the facilities under investigation. The limited distribution of chromium data in some parts of Area 2 complicates efforts to adequately estimate hexavalent chromium concentrations in groundwater and to estimate future impacts on groundwater extraction wells used as the Interim Remedy in the Glendale-North and -South OUs.

The Respondents shall implement the following tasks for completion of the Specified Work:

- Task 1 – Planning
- Task 2 – Community Involvement
- Task 3 – Site Characterization

3. Task 1 – Planning

3.1 Scope of Specified Work

The Specified Work scope shall include evaluating existing data, preparing a preliminary conceptual site model (CSM), Work Plan and associated planning and control documents, investigating groundwater with existing wells and installing and sampling a maximum of 13 new monitoring wells in 13 preliminarily proposed groundwater data collection areas. The data collection areas will be refined during data evaluation and following preparation and review of the CSM. In addition, the Specified Work will include installation of up to five soil borings and geochemical testing, and the preparation of an updated CSM.

Based on the data compilation and review by the Respondents to date, preliminary locations have been identified where additional groundwater data collection is recommended to estimate the distribution of hexavalent chromium in groundwater within the GCOU (Attachment A). Where

appropriate and acceptable to EPA, the Respondents will use existing wells to evaluate groundwater quality in the groundwater data collection areas. If existing wells are not available, Respondents will install and sample up to thirteen new monitoring wells to evaluate groundwater quality. Attachment B identifies the preliminary groundwater data collection areas and discusses the rationale for each area. These locations may be modified to optimize data collection based on further review of existing data and preparation and review of a preliminary CSM.

In addition, the Respondents will advance up to 5 soil borings to perform soil geochemical testing to further evaluate the fate and transport characteristics of hexavalent chromium in groundwater and in the vadose zone. Specific locations for the soil borings will be identified in the Specified Work Plan as the Respondents shall evaluate existing geochemical data collected within the GCOU. A maximum of five soil borings will be advanced as part of the Specified Work, with three in elevated concentration areas and two in background areas (Attachment B).

The proposed groundwater data collection areas include the following two categories:

1. Category 1: groundwater data would be used to estimate the extent of hexavalent chromium generally within the GCOU and north of the two rows of groundwater extraction systems (the GN and GS wells, respectively). There are up to 12 primary data collection areas proposed.
2. Category 2: where collection of additional groundwater data is necessary to further delineate contamination in Category 1 data collection areas that show elevated hexavalent chromium concentrations (exceeding 5 ppb). One such contingency data collection area has been identified (refer to Attachments A and B).

A maximum of five boring locations would be installed to evaluate geochemical conditions both in selected hexavalent chromium elevated concentration areas and in background areas. Samples from these borings will be used to evaluate hexavalent chromium concentrations in the saturated zone and the vadose zone immediately above the saturated zone. Soil samples from borings in the background areas will be used to characterize the hexavalent chromium attenuative capacity of the geologic formations in the GCOU.

The CSM will be updated based on the results of the field investigation undertaken as part of the Specified Work and the CSM will be used to: (1) develop a general understanding of the Area 2 Site to evaluate potential risks to human health and the environment and (2) assist in identifying and setting priorities for future activities to be conducted at the Area 2 Site. The CSM should include either a pictorial or graphic representation of site dynamics as illustrated in Figure 2-2 of the *EPA RI/FS Guidance (Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, October 1988)*. The CSM identifies:

- Potential sources of hexavalent chromium,
- Media affected by hexavalent chromium,
- Release mechanisms and potential fate/transport of hexavalent chromium in groundwater, and
- Actual and potential human and environmental receptors.

The Specified Work includes the collection of one water sample from each of the selected existing and newly installed well or wells located in the data collection areas at least one month after completion of well installation and development, as applicable, and, as feasible, concurrent with a basinwide sampling event in the San Fernando Valley. Future activities identified by the updated CSM, and routine sampling of these and other wells is not included in the Specified Work.

When finalizing the specific aspects of the Specified Work, the Respondents will meet with EPA to discuss all project planning decisions and special concerns associated with the Area 2 Site. The following activities will be performed by the Respondents as a function of the project planning process.

3.2 Data Evaluation

The Respondents shall compile and evaluate the existing data and submit the comprehensive evaluation and preliminary CSM to EPA. This submission, the Data Compilation and Evaluation Report, is the first deliverable listed in the schedule for major deliverables in Section 6 below. Data consist of two types, primary data and secondary data. Primary data are data collected directly by the investigator, in this case the Respondents, during an investigative process. Primary data collection is necessary when an investigator cannot find the data needed in secondary sources. Secondary data are collected or generated by a party other than the investigator prior to or during the investigative process. Existing data are expected to be secondary data. Evaluating existing data is necessary to confirm the scope of the Specified Work and to avoid duplication of previous activities. Furthermore, data are ultimately needed to:

- Identify which existing wells are available and suitable for use in the Specified Work,
- Characterize the GCOU to the extent necessary to support subsequent decisions, and
- Define the risk posed by hexavalent chromium and other contaminants in groundwater within the GCOU.

The types of existing data that should be compiled and evaluated include:

- Historical data gathered during the RI for the SFV Superfund Sites, feasibility studies for the four interim remedies currently in place in Areas 1 and 2, various Respondent facility-specific investigations relevant to chromium concentrations in groundwater in Area 2, and monitoring data for the SFV Superfund Sites and data generated as part of the FFS. A groundwater database that includes available groundwater quality and pumping data for the SFV reported to EPA since approximately 1980 is available upon request. Document review should include, but not be limited to, the following reports: the SFV RI Report (James M. Montgomery & Associates, 1992), the LARWQCB SFV chromium investigation reports (LARWQCB 2002a and 2002b) and EPA (CH2M HILL, 2005), and the 2008 Area 2 Five-Year Review Report (EPA, 2008).
- Identification and general information on potential hexavalent chromium source areas (properties) throughout the GCOU to assess the potential of these to be impacting Area 2 groundwater,

- Historical data prepared in response to chromium investigations overseen by LARWQCB and the California Department of Toxic Substances Control, as available in electronic format (e.g., available via GeoTracker, Envirostor, etc.).
- Historical and aerial photographs,
- Regional geology, hydrology, meteorology, and ecology,
- Demographic and land use information,
- Location of sensitive environmental areas and surface water use on or near the site,
- Location, construction, status, and accessibility of supply wells.

Respondents shall have access to the current, calibrated groundwater model for the Glendale Operable Unit, developed by CH2M HILL on behalf of EPA. EPA will provide the Respondents with the data inputs that EPA, in its sole discretion, deems necessary for the Respondents to accomplish the specific tasks delineated in this SOW. EPA will not release, and will be under no obligation to release, any confidential files, data, records or other information, or any files, data, records or other information subject to any applicable privilege.

3.3 Project Planning

Once the Respondents have collected and analyzed existing data and prepared the preliminary CSM, the Specified Work scope described in Section 3.1 including the locations of existing wells, up to 13 new monitoring wells, and 5 soil borings, will be refined as necessary. Other project planning activities include developing a work plan, designing a data collection program and identifying health and safety protocols. These tasks are described below since they result in the development of specific required deliverables described in Section 3.4. The Respondents shall meet with EPA regarding the planning activities described in this section before drafting of the planning deliverables identified in Section 3.4.

3.4 Planning Deliverables

At the conclusion of the project planning phase, the Respondents shall submit a Specified Work Plan (SWP), a Sampling and Analysis Plan (SAP) and a Health and Safety Plan (HSP). The SWP and SAP must be reviewed and approved by EPA prior to the initiation of field activities, and are described below.

3.4.1 Specified Work Plan

The Respondents shall prepare and submit a draft SWP to EPA for review and approval. The SWP shall be developed in conjunction with the SAP and the HSP, although each plan may be delivered under separate cover. The SWP shall document the decisions and evaluations completed during planning including an evaluation of existing site data. The main body of the SWP shall identify and describe the tasks required to conduct the Specified Work, a comprehensive description of the work to be performed, the methodologies to be used, the

rationale for performing the required activities, and a corresponding schedule and cost for completion.

Specifically, the SWP shall state the problem(s) and potential problem(s) posed by the Area 2 Site and the objectives of the Specified Work. Furthermore, the SWP shall include a site background summary providing a site description; the geographic location of the site; the site physical setting; a detailed history of previous site activities; a description of previous response actions that have been conducted at the site by local, state, federal, or private parties; and a summary of existing data in terms of physical and chemical characteristics of the contaminants identified, and their distribution among environmental media at the site.

The major part of the SWP shall be a detailed description of the tasks to be performed, information needed for each task, information to be produced during and at the conclusion of each task, and a description of the work products that will be submitted to EPA. The work products shall include the following:

- Deliverables set forth in the remainder of this SOW;
- Schedule for each of the required activities; and
- Project Management Plan (PMP), including a data management plan (e.g., requirements for project management systems and software, minimum data requirements, data format, and backup data management), monthly progress reports to EPA, and meetings and presentations to EPA at the conclusion of each major phase of the Specified Work.

3.4.2 Sampling and Analysis Plan

In accordance with the schedule included in Section 6, Respondents shall prepare and submit to EPA for approval a draft SAP. The SAP shall ensure that sample collection and analytical activities are conducted in accordance with technically acceptable protocols. The SAP consists of a Field Sampling Plan (FSP) and a Quality Assurance Project Plan (QAPP) and shall be prepared in accordance with the following EPA guidance:

- "Guidance on Systematic Planning using the Data Quality Objectives Process," (QA/G-4) EPA/240/B-06/001, February 2006,
- "EPA Region IX Sampling and Analysis Plan Guidance and Template, Version 2" (April 2000 (R9QA/002.1))
- "EPA Requirements for Quality Assurance Project Plans (QA/R5)" (EPA/240/B-01/003, March 2001) and FSP Project Plans (QA/G-5)" (EPA/600/R-02/009, December 2002)

The FSP shall define in detail the sampling and data gathering methods that will be used on the project. The FSP shall include: descriptions of sampling objectives; sample locations and frequencies; numbers and types of samples (including quality control [QC] samples); sampling equipment and equipment decontamination procedures; sampling and data collection methods; sample labeling; sample packaging and shipment; sample analysis; well construction; well development procedures; management of drill cuttings, well development water, purge water produced during sampling, and other investigation-derived wastes; field documentation

requirements; and planned uses of the data. The FSP shall be written so that a field sampling team, unfamiliar with the site, would be able to gather the required information.

The QAPP shall describe the project objectives and organization, functional activities, data quality objectives (DQOs), and quality assurance and quality control (QA/QC) protocols that will be used to achieve the desired DQOs. 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 *et seq.* In addition, the QAPP shall address sampling procedures; sample custody; analytical procedures; data reduction; data validation procedures to ensure that reported data are accurate and defensible; personnel qualifications; data management; procedures that will be used to enter, store, correct, manipulate, and analyze data; protocols for transferring data to EPA in electronic format; document control procedures; and preservation of records (in accordance with Section XIV of the Order, Records Retention).

The DQOs shall also reflect the methods to collect physical data such as, but not limited to, groundwater levels, lithologic data, borehole geophysical survey data, aquifer test data, geodetic survey data for sample locations, etc. The Respondents shall enable field personnel to be available for EPA QA/QC training and orientation where applicable.

Respondents shall be prepared to demonstrate to EPA's satisfaction that each laboratory they may use is qualified to conduct the proposed work. This includes use of methods and analytical protocols for the chemicals of concern in the media of interest within detection and quantification limits consistent with both QA/QC procedures and DQOs in the approved QAPP for the site. The laboratory must have and follow an approved QA program.

Respondents shall only use laboratories that have documented Quality Assurance Programs that comply with ANSI/ASQC E-4 1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," (American National Standard, January 5, 1995) and "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01-002, March 2001) or equivalent documentation as determined by EPA. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP) as meeting the Quality System requirements. If the laboratory is not in the EPA Contract Laboratory Program (CLP), a laboratory QA program plan must be submitted for EPA review and approval. 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 specifications. Respondents will provide assurances that EPA has access to laboratory personnel, equipment and records, and during sample collection, transportation, and analysis activities.

After EPA review, EPA may direct the Respondents to prepare a Final SAP that satisfactorily addresses EPA's comments.

3.4.3 Health and Safety Plan

The Respondents shall prepare and submit a Draft HSP for EPA review. It should be noted that EPA does not approve the Respondents' HSP, but rather EPA reviews it to verify that all necessary elements are included, and that the HSP provides for the protection of human health and the environment. Although EPA does not approve HSPs, the Respondents shall prepare and

submit a final HSP that addresses EPA's comments. The HSP shall be written so that field personnel, unfamiliar with the site and hazards, will be able to perform all work tasks in a safe manner. The HSP shall identify potentially hazardous operations and exposures and prescribe appropriate protective measures for onsite workers, the surrounding community, and the environment. The HSP shall include a detailed site description accompanied by site maps and the results of previous sampling activities. The HSP shall also include, at a minimum, the 11 elements described in Appendix B of the EPA RI/FS Guidance, such as a health and safety risk analysis, a description of monitoring and personal protective equipment, medical monitoring, and site control. The HSP must also conform to the Respondents' health and safety program, which in turn must comply with *Occupational Safety and Health Administration (OSHA) OSHA Code of Federal Regulations (CFR) Title 29, Section 1910.120 and California (Cal)/OSHA California Code of Regulations (CCR) Title 8, Article 109, Section 5192 Hazardous Waste Operations and Emergency Response (HAZWOPER)*.

4. Task 2 – Community Involvement

If directed to do so by EPA, the Respondents shall develop and implement community involvement activities subject to approval by EPA. At EPA's discretion, EPA may elect to take the lead role and responsibility in the development and implementation of community involvement activities. The critical community involvement planning steps include conducting community interviews and developing a Community Involvement Plan (CIP). The Respondents may assist EPA, as requested by EPA, by providing information regarding the site's history, participating in public meetings, or by preparing fact sheets for distribution to the general public. In addition, the Respondents may establish a community information repository, at or near the site, to house one copy of the Administrative Record. The extent of the Respondents' involvement in community involvement activities will be at EPA's discretion. The Respondents' community involvement responsibilities, if any, will be specified in the CIP. All of the Respondents' community involvement activities will be subject to oversight by EPA.

4.1 Community Involvement Plan

If directed to do so by EPA, the Respondents shall prepare and submit a draft CIP to EPA for review and approval. At EPA's discretion, EPA may elect to prepare the CIP.

The CIP documents the history of community relations and the issues of community concern at a site. The CIP also describes the objectives of the community involvement activities and how these objectives will be met and includes a discussion of planned community interviews, fact sheets, and public meetings. Discussions with the community should be initiated during scoping as relevant information may be gathered at that time. Report preparation methods, the elements contained in a CIP, and a recommended format are included on EPA's Community Involvement Tool Kit Web page at <http://www.epa.gov/superfund/community/toolkit.htm>.

5. Task 3 – Specified Work

The Respondents will investigate selected areas to estimate the extent of migration of hexavalent chromium as well as changes in its physical or chemical characteristics. The investigation in the

selected areas will provide an understanding of the nature and general extent of hexavalent chromium in the saturated zone and vadose zone immediately above the saturated zone and provide the parameters required for the Respondents to evaluate hexavalent chromium fate and transport within those areas.

During this phase of the Specified Work, the SWP, SAP, and HSP are implemented. Field data are collected and analyzed to provide the information required to accomplish the objectives of the study. The Respondents shall notify EPA at least 2 weeks in advance of drilling or sampling activities. The Respondents shall demonstrate that the laboratory and the type of laboratory analyses and detection limits that will be utilized during site characterization meet the specific QA/QC requirements and the DQOs of the site investigation as specified in the SAP/QAPP. In addition to the deliverables below, the Respondents shall prepare and submit monthly progress reports to EPA and participate in meetings at major points during the Specified Work.

5.1 Field Investigation

These activities will be performed by the Respondents in accordance with the SWP and the SAP. At a minimum, this shall address the items described below.

5.1.1 Implement and Document Field Support Activities

The Respondents shall initiate field support activities following approval by EPA of the SWP and SAP. Field support activities may include obtaining access to the site, scheduling, and procuring equipment, office space, laboratory services, and/or contractors. The Respondents shall notify EPA at least 2 weeks prior to initiating field support activities so that EPA may adequately schedule oversight tasks. The Respondents shall also notify EPA in writing upon completion of field support activities.

5.1.2 Characterization of Representative Sources

The physical characteristics and chemical constituents and their concentrations will be determined for two representative sources of hexavalent chromium.

Characterizing representative sources of hexavalent chromium will include assessing mobility and persistence, and characteristics important for evaluating remedial actions, including information to assess fate and transport characteristics and in-situ and other treatment technologies. As part of characterizing a representative chromium source, both groundwater and overlying vadose-zone soil contamination should be considered, which could impact groundwater in the future via leaching or saturation (if groundwater levels rise). Data will be obtained from the available existing information and the proposed soil borings and monitoring wells. In addition, determination of background geochemical conditions and chromium concentrations, based on analytical results from upgradient wells and borings, will be required.

5.1.3 Describe the Nature and Extent of Hexavalent Chromium in Groundwater

The Respondents shall gather information in the selected areas to describe the nature and general extent of hexavalent chromium in groundwater. Respondents will use the available information on facility operations (e.g., types of industrial operations, locations of storage areas, etc.) to evaluate potential additional sources of hexavalent chromium. The Respondents will implement a study program identified in the SWP or SAP to use analytical techniques sufficient to detect and quantify the concentrations of hexavalent chromium in groundwater analyzed by the Specified Work and to identify patterns of migration of hexavalent chromium. In addition, the Respondents will gather data for evaluation of fate and transport of hexavalent chromium.

New monitoring wells installed as part of the Specified Work should be constructed similarly to EPA's existing monitoring wells in the upper portion of the Upper Regional Groundwater Zone. Screened intervals should be selected to account for local historic water table fluctuations.

During the initial sampling event at borings and new wells, samples should be analyzed for a broad suite of general geochemical and redox parameters, constituents that attenuate hexavalent chromium, in addition to total chromium and hexavalent chromium. Boring samples shall also be analyzed for saturated water migration parameters and hexavalent chrome leachability. The following analyses are also required for the initial ground water sampling event at new wells:

- Nitrate, nitrite, and sulfate
- Sulfide
- Total dissolved metals
- Total organic carbon
- Total Kjeldahl nitrogen
- Ammonia
- Common cations and anions, including alkalinity and silica
- Volatile organic compounds (VOCs)

Field parameters recorded during all sampling events shall include pH, dissolved oxygen, oxygen-reduction potential (ORP), total dissolved solids, turbidity, specific conductance, and temperature.

5.2 Data Analyses

The Respondents shall perform data analyses as described below to evaluate and interpret the data collected during the field investigation.

5.2.1 Evaluate Site Characteristics

The Respondents shall analyze and evaluate the data to describe the following criteria:

1. Site physical characteristics,
2. Chromium source characteristics,
3. Nature and estimated extent of chromium in groundwater, and
4. Chromium fate and transport

Results of the site physical characteristics, identification of potential hexavalent chromium sources, and the analysis of the distribution and estimated extent of hexavalent chromium groundwater will be used to assess hexavalent chromium fate and transport. The evaluation will include discussing the estimated horizontal and vertical distribution of hexavalent chromium and the mobility and persistence of hexavalent chromium. The Respondents will make all data generated or obtained as a part of the Specified Work available to EPA.

The Specified Work data shall be presented in a format (i.e., computer compact disk or equivalent) to facilitate preparation of a baseline risk assessment (which is not included in the Specified Work). Analyses of data collected for site characterization will meet the DQOs developed in the QAPP as part of the SAP, or as revised during the Specified Work.

5.3 Data Management Procedures

The Respondents shall consistently document the quality and validity of field and laboratory data compiled during the Specified Work, as described below.

5.3.1 Document Field Activities

The Respondents shall consistently document and record information gathered during site characterization in well maintained field logs and laboratory reports. The methods of documentation will be specified in the SWP and the SAP. The Respondents will use field logs to document observations, measurements, and significant events that occur during field activities. Laboratory reports will document sample custody, analytical responsibility, analytical results, adherence to prescribed protocols, nonconformity events, corrective measures, and/or data deficiencies.

5.3.2 Maintain Sample Management and Tracking

The Respondents will maintain field reports, sample shipment records, analytical results, and QA/QC reports to ensure that only validated analytical data are reported and used in the baseline risk assessment, remedial investigation and development and evaluation of remedial alternatives (none of which are included in the Specified Work). Analytical results developed under the SWP shall not be included in the Specified Work Report unless accompanied by or cross-referenced to a corresponding QA/QC report. In addition, the Respondents shall establish a data security system to safeguard chain-of-custody forms and other project records to prevent loss, damage, or alteration of project documentation.

5.4 Site Characterization Deliverables

The Respondents shall prepare and submit a draft Specified Work report to EPA for review. The Specified Work report shall summarize the results of field activities to characterize the site, and include a Conceptual Site Model that discusses sources of contamination, nature and estimated extent of chromium contamination and fate and transport of chromium. Once EPA's comments have been addressed, the Respondents shall provide the final Specified Work report to EPA.

6. Schedule for Major Deliverables

The schedule for major deliverables is described below. The schedule for submittal of major deliverables may be revised as necessary and at EPA's discretion, in consultation with Respondents.

ACTIVITY **DUE DATE**

TASK 1 - PLANNING DELIVERABLES

Data Compilation and Evaluation Report, including the Preliminary CSM	Ninety (90) days after the effective date of the enforcement instrument.
Draft Specified Work Plan including data evaluation results	Sixty (60) days after completion of the Data Compilation and Evaluation Report
Final Specified Work Plan	Thirty (30) days after receipt of EPA comments
Draft Sampling and Analysis Plan, including the Field Sampling Plan and the Quality Assurance Project Plan	Sixty (60) days completion of the Data Compilation and Evaluation Report
Final Sampling and Analysis Plan, including the Field Sampling Plan and the Quality Assurance Project Plan	Thirty (30) days after receipt of EPA comments
Draft Health and Safety Plan	Thirty (30) days after completion of the Data Compilation and Evaluation Report
Final Health and Safety Plan	Twenty-one (21) days after receipt of EPA comments

TASK 2 - COMMUNITY INVOLVEMENT DELIVERABLES

Draft Community Involvement Plan	Ninety (90) days after EPA request
Final Community Involvement Plan	Thirty (30) days after receipt of EPA comments

TASK 3 - SPECIFIED WORK DELIVERABLES AND ACTIVITIES

Initiate Field Investigation Activities	Sixty (60) days after EPA approval of the Specified Work Plan, contingent upon obtaining permitting & access rights
Draft Specified Work Report to EPA	Ninety (90) days after completion of field investigation activities, including those implemented by the Respondents and those required of other PRPs by EPA
Final Specified Work Report to EPA	Sixty (60) days after receipt of EPA comments

7. REFERENCES

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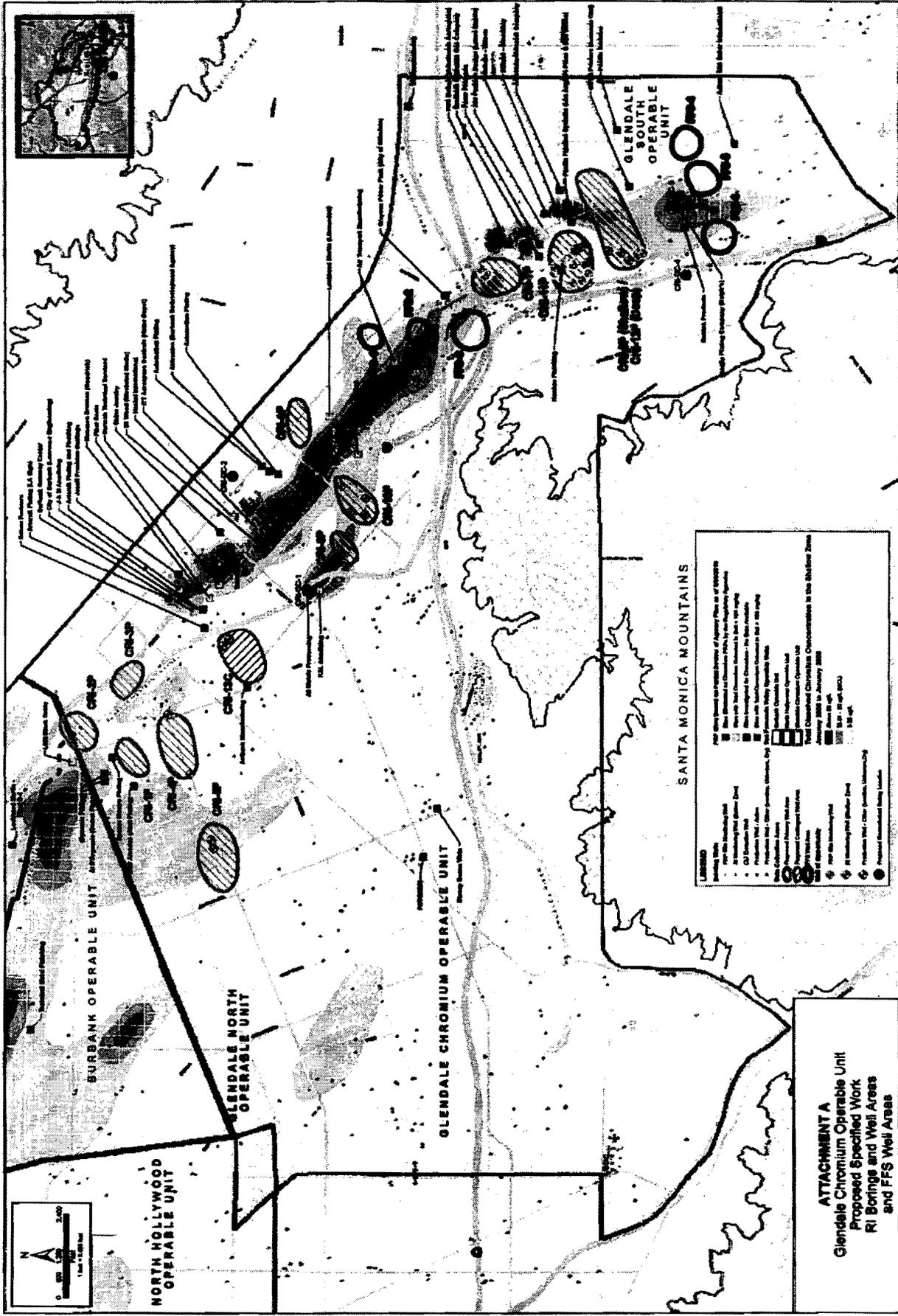
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ATTACHMENT A
PRELIMINARY GROUNDWATER DATA COLLECTION AREA



ATTACHMENT A
 Glendale Chromium Operable Unit
 Proposed Specified Work
 RI Borings and Well Areas
 and FFS Well Areas

ATTACHMENT B
SPECIFIED WORK – PRELIMINARY LOCATIONS OF
GROUNDWATER DATA COLLECTION
AREAS AND BORINGS

ATTACHMENT B

SPECIFIED WORK – GROUNDWATER DATA COLLECTION AREAS AND BORINGS

GCOU Data Collection Area— Category 1	Potential Existing Wells in Data Collection Area	Rationale
CRI-1P	None	Evaluate groundwater concentrations. Evaluate whether Spence Electro Plating and other nearby facilities are a source, Downgradient of BOU.
CRI-2P	None	Downgradient of BOU, evaluate potential local sources, including from the Burbank Western Channel.
CRI-3P	None	Evaluate eastern extent and whether there are upgradient sources (e.g., potential Scott Road Landfill, Burbank Western Channel).
CRI-4P	2	Evaluate whether KBC (Alert) Plating is a source, downgradient of BOU, additional information of other potential sources, assess eastern extent.
CRI-5P	2	Downgradient of BOU, assess extent.
CRI-6P	3	Evaluate extent, evaluate potential sources from Drilube-Wilson and Zoe Fashion Design (Lanco Metals)
CRI-7P	4	Evaluate whether J&M is a source and assess extent
CRI-8P	1	Evaluate lateral extent.
CRI-9P	None	Evaluate whether upgradient sites are sources and assess lateral extent.
CRI-10P	5	Evaluate extent and potential impacts migrating from the west.
CRI-11P	16	Evaluate extent.
CRI-12P	None	Evaluate extent, evaluate potential sources from Drilube-Wilson and Zoe Fashion Design (Lanco

ATTACHMENT B
SPECIFIED WORK - GROUNDWATER DATA COLLECTION AREAS AND BORINGS

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ATTACHMENT B

SPECIFIED WORK – GROUNDWATER DATA COLLECTION AREAS AND BORINGS

Proposed Data Collection Area— Category 2	Potential Wells of Opportunity in Proposed Data Collection Area	Rationale	Contingency Trigger
CRI-13C	5	Assess extent; evaluate potential sources including Burbank Western Channel.	Evaluate necessity during CSM update

1

5

Boring No.	Potential Wells of Opportunity in Proposed Data Collection Area	Rationale
CRI-GC-1	N/A	Geochemical properties in an area of elevated chromium concentrations.
CRI-GC-2	N/A	Geochemical properties in an area of elevated chromium concentrations.
CRI-GC-3	N/A	Background geochemical properties.
CRI-GC-4	N/A	Geochemical properties in an area of elevated chromium concentrations.
CRI-GC-5	N/A	Background geochemical properties.

5