

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII

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EPA REGION VIII
HEARING CLERK

IN THE MATTER OF:

THE PALLAS YARD SITE,
MURRAY, UTAH.

THE UTAH TRANSIT AUTHORITY,
a transportation authority organized under
the laws of the State of Utah,

Respondent.

PROCEEDING UNDER SECTION 106
OF THE COMPREHENSIVE
ENVIRONMENTAL RESPONSE,
COMPENSATION, AND LIABILITY
ACT OF 1980, AS AMENDED,
42 U.S.C. § 9606.

Docket No. CERCLA-VIII-98-15

ADMINISTRATIVE ORDER ON CONSENT
FOR IMPLEMENTATION OF NON-TIME
CRITICAL REMOVAL ACTION

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ATTACHMENTS

- Exhibit 1. Map of Pallas Yard Site
- Exhibit 2. Scope of Work

I. INTRODUCTION

1. This Administrative Order on Consent ("Consent Order") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and the Utah Transit Authority ("Respondent"). The Consent Order concerns the completion of a non-time-critical removal action, and the reimbursement of all Response Costs incurred by EPA, all in connection with the Pallas Yard Site ("Site").

II. JURISDICTION

2. This Consent Order is issued under the authority vested in the President of the United States by section 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9606 (1982), as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613 (1986) ("CERCLA"). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12,580, 52 Fed. Reg. 2,923 (1987), and further delegated to Regional Administrators on September 13, 1987, by EPA Delegation No. 14-14-C. This authority has been further delegated to the Assistant Regional Administrator, Office of Ecosystems Protection and Remediation.

3. Respondent agrees to undertake all actions required by the terms and conditions of this Consent Order. In any action by EPA or the United States to enforce the terms of this Consent Order, Respondent consents to and agrees not to contest the authority or jurisdiction of the Regional Administrator or other delegated authority to issue or enforce this Consent Order, and agrees not to contest the validity of this Consent Order or its terms. Respondent's participation in this Consent Order shall not constitute or be construed as an admission of liability or of EPA's findings or determinations contained in this Consent Order and is not an acknowledgment by Respondent that any release of a hazardous substance constituting an imminent and substantial endangerment to human health or the environment has occurred or exists at the Site, except in a proceeding to enforce the terms of this Consent Order.

III. PARTIES BOUND

4. This Consent Order shall apply to and be binding upon EPA and upon Respondent, its agents, successors and assigns. Respondent is responsible for carrying out all actions required of it by this Consent Order. The signatories to this Consent Order certify that they are authorized to execute and legally bind the parties they represent to this Consent Order. No change in the legal status of Respondent or of the facility or Site shall alter Respondent's responsibilities under this Consent Order.

IV. DEFINITIONS

5. Unless otherwise expressly provided herein, terms used in this Consent Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or such regulations. For purposes of this Consent Order, the following terms shall have the meanings set forth below.

"Consent Order" means this Consent Order, the exhibits attached to this Consent Order, and all documents or modifications to documents incorporated into this Consent Order according to the procedures set forth herein. If there is a conflict between this Consent Order and any documents incorporated into this Consent Order, the terms of the Consent Order shall control.

"Contractor" means any person, including the contractors, subcontractors, consultants, or agents, retained or hired by Respondent to undertake any work under this Consent Order.

"Day" means calendar day, unless otherwise specified. In computing any period of time under this Consent Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business on the next working day. Time will be computed in accordance with Rule 6 of the Federal Rules of Civil Procedure, unless otherwise specified.

"Deliverable" means any written product, including, but not limited to, plans, reports, memoranda, data, or other documents that Respondent must submit to EPA under the terms of this Consent Order.

"Engineering Evaluation/Cost Analysis" or "EE/CA" means the process during which the nature and extent of contamination is determined, the alternatives for a non-time critical removal action are identified and evaluated, and a preferred alternative is identified, including the detailed final reports, prepared pursuant to the requirements of and in accordance with EPA guidance and 40 C.F.R. 300.415.

"EPA's Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that EPA incurs in reviewing or developing plans, reports and other items pursuant to this Consent Order, verifying the Work, or otherwise implementing, overseeing, or enforcing this Consent Order, including, but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, and the costs incurred pursuant to Sections XI (Modification of the Work Plan) and XIV (Access, Sampling, and Availability of Information) (including, but not limited to, attorneys fees and the amount of just compensation). EPA's Response Costs shall also include all costs, including direct and indirect costs, paid by EPA in connection with the Site between August 1, 1997 and the effective date of this Consent Order.

"NCP" means the National Oil and Hazardous Substances Pollution Contingency Plan promulgated under section 105 of CERCLA, 42 U.S.C. § 9605, and codified at 40 C.F.R. Part 300, including, but not limited to, any amendments thereto.

"Removal Action Work Plan" means the Work Plan implementing the requirements of this Consent Order pertaining to the non-time critical removal as directed by the Action Memorandum issued by EPA, and by the Scope of Work attached hereto as Exhibit 2, and incorporated herein by reference. The Removal Action Work Plan shall include the Work Plan itself, the sampling and analysis plan, and any other plans or modifications thereto described in the Work Plan or approved by EPA pursuant to this Consent Order in connection with the Removal.

"Removal Design Work Plan" means the Work Plan which designs the Removal Action set forth in the Action Memorandum which will detail performance standards, and shall include descriptions of action to be taken and schedules for implementation requirements of this Consent Order.

"Scope of Work" means the Scope of Work attached hereto as Exhibit 2. The Scope of Work ("SOW") outlines requirements for the Removal Design Work Plan and the Removal Action Work Plan.

"Site," for the purposes of this Consent Order only, means the Pallas Yard Site, as defined in Exhibit 1, and all suitable areas in very close proximity necessary for implementation of the response action. Nothing herein shall require Respondent to address areas outside of the Site defined in Exhibit 1 without Respondent's express written consent.

"Work" means all tasks Respondent is required to perform under this Consent Order.

V. STATEMENT OF PURPOSE

6. In entering into this Consent Order, the objectives of EPA and the Respondent are: (a) to recover response and oversight costs incurred by EPA with respect to this Consent Order and the Site; (b) to provide a comprehensive investigatory and evaluative process to address the Site with input from the State of Utah; and (c) to provide for the implementation of a non-time-critical removal action to address any imminent and substantial endangerment to public health, welfare, or the environment that may be presented by the actual or threatened release of hazardous substances at the Pallas Yard Site.

7. The activities conducted under this Consent Order are subject to approval by EPA, after reasonable opportunity for the State to review and comment, and shall provide all appropriate necessary information for the EE/CA, to include an interactive process between EPA and the Respondents, in consultation with the State of Utah, to perform a streamlined risk

assessment, and for an Action Memorandum for a non-time-critical removal action that is consistent with CERCLA. The activities conducted under this Consent Order shall be conducted in compliance with all applicable EPA guidance, policies, and procedures. All activities conducted in compliance with this Consent Order shall be deemed to be in compliance with the NCP.

VI. EPA'S FINDINGS OF FACT

Site Description and History

8. The Site encompasses an area approximately 170 feet wide between 5300 South Street and 5900 South Street and immediately east of 300 West Street in Murray, Utah. Pallas Yard is an active railroad siding originally developed around the turn of the century by Union Pacific Railroad and Denver & Rio Grande Railroad to support local smelters and industrial facilities in the area. During the development of the railway, fill from an unknown source was brought in and placed beneath the tracks. There are presently five sets of tracks in the yard, three along the west side of the yard, and two sets along the east side. Salt Lake Southern Railroad currently has a freight easement for use of a portion of the site and uses the yard and three sets of tracks as a freight-car switching area.

Release or Threatened Release

9. Soil fill at the Site contains elevated levels of the following hazardous substances: arsenic, cadmium, and lead. Average concentrations of lead on the Site generally range from 10,000 ("ppm") to 12,000 ppm with concentrations ranging from background to 66,000 ppm. Arsenic concentrations range from background to 4,900 ppm. Cadmium concentrations range from background to 260 ppm. Most of the residential housing property is along the east side of the yard from approximately 5650 South to 5900 South Street. The west side of the yard is bordered by 300 West Street. Most of the properties west of 300 West are commercial or light manufacturing facilities. However, there are four or five residences located on the west side of 300 West Street at approximately 5500 South and a sixth located at approximately 5900 South. Twenty-three residential properties are located along the eastern side of Pallas Yard investigation area. Elevated concentrations of arsenic, cadmium and lead have been detected in the sediments in a partially open irrigation ditch that traverses the site.

Response Actions

10. Respondent has completed several environmental studies on the Site. In 1992, the EPA Emergency Response Branch conducted a study of smelters in the Salt Lake Valley which identified as many as thirty-five smelters in operation at one time or another in the valley. This study analyzed soil lead concentrations throughout Murray City and found elevated levels of lead in soil surrounding the old smelters. The Respondent performed additional studies in 1996 and

1997 to support the development of an EE/CA and will be undertaking a non-time critical removal action to mitigate risk under this Administrative Order.

Respondent

11. In 1993, Respondent, the Utah Transit Authority, purchased this property from Union Pacific Railroad. Respondent has not conducted any activities on the Site. Salt Lake Southern Railroad has a freight easement for use of the yard as a freight-car switching yard. In August 1997, Respondent requested EPA involvement in the cleanup of the Site.

Other Activities

12. At various times smelters have operated in close proximity to the Site. The nature and extent of the activities on the Site since the smelters closed and the impact of those activities on the contamination are generally unknown.

VII. EPA'S CONCLUSIONS OF LAW AND DETERMINATIONS

13. Based on the preceding Findings of Fact and the administrative record for the Site, EPA has made the following conclusions of law and determinations:

- a. The Site is a "facility" as defined in section 101(9) of CERCLA, 42 U.S.C. § 9601(9);
- b. Substances found at the Site are "hazardous substances" as defined in section 101(14) of CERCLA, 42 U.S.C. § 9601(14);
- c. The presence of hazardous substances at the Site or the past, present, or potential future migration of hazardous substances described in Section VI (EPA's Findings of Fact) of this Consent Order constitutes an actual and/or threatened "release" as defined in section 101(22) of CERCLA, 42 U.S.C. § 9601(22);
- d. The conditions present at the Site constitute an imminent and substantial endangerment to public health, welfare, or the environment.
- e. Respondent is a "person" as defined in section 101(21) of CERCLA, 42 U.S.C. § 9601(21);
- f. Respondent is a potentially responsible party under section 107, 42 U.S.C. § 9607; and

- g. The actions required by this Consent Order are necessary to protect the public health or welfare or the environment, are in the public interest, are consistent with CERCLA and the NCP, and will expedite effective remedial action and minimize litigation.

VIII. NOTICE TO STATE

14. By providing a copy of this Consent Order to the State of Utah ("State"), EPA has notified the State that this Consent Order is being issued and that EPA is the lead agency for coordinating, overseeing, and enforcing the response action required by the Consent Order.

IX. FINAL EE/CA ACTION MEMORANDUM AND ADMINISTRATIVE RECORD

15. Respondent prepared an EE/CA report in accordance with the NCP, CERCLA, and pertinent EPA guidance. This report has been approved by EPA.

16. EPA is responsible for the release to the public of the EE/CA report and the preparation and release to the public of the Action Memorandum in accordance with CERCLA and the NCP.

17. EPA has or will determine the contents of the administrative record file for selection of the removal action. Respondent may supplement the administrative record file with any documents or information relevant to the EE/CA. Upon EPA request, Respondent shall submit to EPA documents developed during the course of the EE/CA upon which selection of the response action may be based. Upon EPA request, Respondent shall provide copies of plans, task memoranda (including documentation of field modifications), recommendations for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports, and other reports. Additionally, upon EPA request, Respondent shall submit any previous studies conducted under state, local or other federal authorities relating to selection of the response action, and all communications between Respondent and state, local, or other federal authorities concerning selection of the response action. The Murray Library, 166 East 5300 South, Murray, Utah 84107, has been designated by EPA as a community information repository at or near the Site to house one copy of the administrative record.

X. WORK TO BE PERFORMED TO COMPLETE THE REMOVAL ACTION

18. Respondent shall perform a removal action consistent with the EE/CA, the Action Memorandum, and the Scope of Work ("SOW") attached as Exhibit 2.

19. EPA may approve, disapprove or require revisions to deliverables required under the SOW, including the Removal Design Work Plan ("RDWP") and the Removal Action Work Plan ("RAWP"). If EPA requires revisions, Respondent shall submit a revised draft deliverable within 10 days of receipt of EPA's notification of the required revisions. Respondent shall implement the requirements of the deliverables, including the RDWP and RAWP, as finally approved in writing by EPA in accordance with the schedule approved by EPA. Once approved, or approved with modifications, the RAWP, the schedule, and any subsequent modifications shall be fully enforceable under this Order. Respondent shall notify EPA at least 48 hours prior to beginning any on-site work pursuant to the EPA-approved RAWP. Respondent shall not commence or undertake any removal action on the site without prior EPA approval.

20. Upon request by EPA, Respondent shall have a qualified laboratory analyze samples submitted by EPA for quality-assurance monitoring. Respondent shall provide to EPA the quality assurance/quality control procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

21. Upon request by EPA, Respondent shall allow EPA or its authorized representatives to take split and/or duplicate samples of any samples collected by Respondent while performing work under this Order. Respondent shall notify EPA not less than 2 days in advance of the initiation of any sample collection activity. EPA shall have the right to take any additional samples that it deems necessary.

22. In accordance with the RDWP schedule, or as otherwise directed by EPA, Respondent shall submit a proposal for post-removal site control consistent with section 300.415(k) of the NCP and OSWER Directive 9360.2-02 within 30 days of completion of the Removal Action. The proposal may be included within the Site Monitoring Plan. Upon EPA approval, Respondent shall implement such controls and shall provide EPA with documentation of all post-removal site control arrangements.

23. Respondent shall, at least 30 days prior to the conveyance of any interest in real property at the Site, give written notice that the property is subject to this Order to the transferee and written notice to EPA of the proposed conveyance, including the name and address of the transferee. Respondent agrees to require that its successor comply with the immediately preceding sentence and Section XIV (Access, Sampling, and Availability of Information).

XI. MODIFICATION OF THE WORK PLAN

24. Modifications of any plan or schedule or the Removal Action Work Plan may be made in writing by the OSC/RPM or at the OSC/RPM's oral direction after consultation with Respondent. If the OSC/RPM makes an oral modification, it will be memorialized in writing within 10 days; provided, however, that the effective date of the modification shall be the date of

the OSC/RPM's oral direction. Any other requirements of the Order may be modified in writing by mutual agreement of the parties.

25. If Respondent seeks permission to deviate from the approved RAWP or schedule, Respondent's Project Coordinator may submit either an oral or written request to EPA for approval outlining the proposed Work Plan modification and its basis. If an oral request is made, the Respondent shall document it within 5 days after EPA's oral approval.

26. No informal advice, guidance, suggestion, or comment by EPA regarding reports, plans, specifications, schedules, or any other writing submitted by the Respondent shall relieve the Respondent of its obligation to obtain such formal approval as may be required by this Order, and to comply with all requirements of this Order unless it is formally modified. EPA will consult with Respondent prior to requiring modifications or revisions of deliverables.

XII. QUALITY ASSURANCE

27. All sampling and analyses performed pursuant to this Order shall conform to EPA direction, approval, and guidance regarding sampling, quality assurance/quality control "QA/QC", data validation, and chain of custody procedures. Respondent shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance. Respondent shall follow the following documents, as appropriate, as guidance for QA/QC and sampling: "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures," OSWER Directive Number 9360.4-01; "Environmental Response Team Standard Operating Procedures," OSWER Directive Numbers 9360.4-02 through 9360.4-08; and the representative Sampling Guidance for soil, air, ecology, waste, and water as this information becomes finalized and available.

28. In the event that Respondent fails to use the quality assurance/quality control practices and procedures as outlined in the approved sampling and analysis plan and after notification Respondent fails to correct the alleged improper practice or procedure within 10 days, EPA reserves the right to conduct the Work or any portion thereof pursuant to its authority under CERCLA, to seek reimbursement from Respondent, and/or to seek any other appropriate relief.

XIII. PROGRESS REPORTS AND MEETINGS

29. During the course of all Work under this Consent Order, Respondent shall submit the following reports to EPA:

Progress Calls. As needed, Respondent shall initiate progress calls that include, at a minimum, the following information:

- (1) A description of actions taken to comply with this Consent Order, including plans and actions completed, during the preceding period;
- (2) A description of 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;
- (3) Work planned for the next period with schedules relating such Work to the overall project; and
- (4) All results of sampling and tests and all other data collected or received by Respondent during the preceding period.

Respondent shall provide minutes of each of these calls to EPA on or before the next call is initiated during the time this Consent Order is in effect.

Progress Reports. Respondent shall prepare periodic progress reports containing, at a minimum, the following information:

- (1) A description of actions taken to comply with this Consent Order, including plans and actions completed, during the preceding period;
- (2) A description of 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;
- (3) Work planned for the next period with schedules relating such Work to the overall project; and
- (4) All results of sampling and tests and all other data collected or received by Respondent during the preceding period.

Respondent shall submit these reports to EPA during each period.

30. Respondent shall make presentations at and participate in meetings at the request of EPA during the initiation, conduct, and completion of the removal. In addition to discussion of the technical aspects of the removal action, topics may include anticipated problems or new issues. Meetings will be scheduled at EPA's discretion. EPA will notify Respondent 5 days prior to any meeting and will provide meeting materials at least 2 days prior to the meeting.

31. EPA is responsible for conducting community relations with respect to the Site. Subject to EPA policy, EPA will coordinate and consult with Respondent in conducting community relations activities. Respondent shall cooperate with EPA in providing information

regarding implementation of this Consent Order to the public. If requested by EPA, Respondent shall participate in the preparation of such information for dissemination to the public and in public meetings which may be held or sponsored by EPA to explain activities at or relating to the Site. Nothing in this Consent Order shall preclude Respondent from undertaking its own community relations activities.

XIV. ACCESS, SAMPLING, AND AVAILABILITY OF INFORMATION

32. At all reasonable times EPA, the State, and their authorized representatives shall have the authority to enter and freely move about all property at the Site and off-Site areas where Work, if any, is being performed, for the purposes of inspecting conditions, activities, the results of activities, records, operating logs, and contracts related to the Site or Respondent and its contractor pursuant to this Consent Order; reviewing the progress of Respondent in carrying out the terms of this Consent Order; conducting tests as EPA, the State, or their authorized representatives deem necessary; using a camera, sound recording device or other documentary type equipment; and verifying the data submitted to EPA and the State by Respondent. Respondent shall allow these persons to inspect and copy all records, files, photographs, documents, sampling and monitoring data, and other writings related to Work undertaken in carrying out this Consent Order. Respondent shall be offered split samples of all samples obtained by such persons and, excluding any documents exempt from disclosure under Federal or State law, copies of all data and/or reports generated as a result of such an inspection. Nothing herein shall be interpreted as limiting or affecting EPA's right of entry or inspection authority under federal law. All parties with access to the Site under this Paragraph shall comply with all approved health and safety plans, and Site control measures outlined in the RAWP.

33. If the Site or any off-Site area needed for conduct of the removal is owned in whole or in part by parties other than those bound by this Consent Order, Respondent will obtain, or use its best efforts to obtain, written Site access agreements from the owner no later than 10 days prior to the time such access is needed. Such agreements shall provide access for EPA, the State and their authorized representatives and Respondent or its authorized representatives. Such agreements shall specify that Respondent is not EPA's or the State's representative with respect to liability associated with Site activities. Copies of such agreements shall be provided to EPA.

34. If access agreements are not obtained within the time referenced above, Respondent shall promptly notify EPA of its failure to obtain access. Respondent may assert that failure to obtain access agreements constitutes a force majeure event. EPA may, but is not required to, obtain access for Respondent, perform those tasks or activities with EPA contractors, delete such properties from Work required to be performed under this Order, modify the Work Plan, or terminate the Consent Order in the event that Respondent cannot obtain access agreements. In the event that EPA performs those tasks or activities that require such access with EPA contractors and does not terminate the Consent Order, Respondent shall perform all other activities not requiring access to that area, and shall reimburse EPA for all costs incurred in

performing such activities. Respondent additionally shall integrate the results of any such tasks undertaken by EPA into its Deliverables. Respondent agrees to indemnify the United States as specified in Section XXVII (Financial Assurance, Insurance, and Indemnification) of this Consent Order. Respondent shall reimburse EPA for all costs and attorney fees incurred by the United States to obtain access for Respondent in accordance with Section XIV (Access, Sampling, and Availability of Information) of this Consent Order.

35. All results of sampling, tests, modeling, or other data (including raw data) generated by Respondent, or on Respondent's behalf, during implementation of this Consent Order, shall be submitted to EPA in the progress report as described in Section XIII (Progress Reports and Meetings) of this Consent Order or in a report documenting the completion of this removal action. EPA will make available to Respondent validated data generated by EPA unless it is exempt from disclosure by any federal or state law or regulation.

36. Respondent will notify EPA in writing at least 48 hours prior to mobilizing or conducting significant field events as described in the Work Plans, or Sampling and Analysis Plans. At the verbal or written request of EPA, the State or their authorized representatives, Respondent shall allow EPA, the State and/or their authorized representatives to collect whatever samples EPA or the State deem necessary, including split or duplicate samples of any samples collected by Respondent in implementing this Consent Order. All split samples of Respondent shall be analyzed by the methods identified in the QAPP.

37. By entering into this Consent Order, Respondent waives any evidentiary objections to any data gathered, generated, or evaluated by EPA or Respondent in the performance or oversight of the Work that has been verified according to EPA-approved quality assurance/quality control procedures, unless Respondent notifies EPA within 14 days of the defects in such data. Respondent also waives any evidentiary objection to any data referenced in the Work Plan. If Respondent objects to any data relating to the EE/CA or referenced in the Work Plan, Respondent shall submit to EPA a report that 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 30 days of the monthly progress report containing the data or within 30 days of receipt of the data from EPA, whichever is applicable.

38. Respondent shall provide to EPA, upon request, copies of all documents and information within its possession or control or that of its contractors relating to activities at the Site or to the implementation of this Consent Order, including, but not limited to, sampling, analyses, chain-of-custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, personal logs of Respondent's on-Site representatives, or other documents or information related to the Work. Respondent shall also make available to EPA, for purposes of investigation, information gathering, or testimony, its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

39. Respondent may assert business confidentiality claims covering part or all of the documents or information submitted to EPA under this Consent Order to the extent permitted by section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7). Such claims shall be asserted in the manner described by 40 C.F.R. § 2.203(b) and substantiated at the time the claim is made. 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 they are submitted to EPA, or if EPA has notified Respondent that the documents or information are not confidential under the standards of section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), the public may be given access to such documents or information without further notice to Respondent.

40. Respondent 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 Respondent asserts such a privilege in lieu of providing documents, it shall provide EPA 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 the Respondent. However, no documents, records or other information created or generated pursuant to the requirements of this Administrative Order on Consent shall be withheld on the grounds that they are privileged.

XV. PROJECT COORDINATORS

41. EPA and Respondent shall each designate their own Project Coordinator.

a. The EPA Project Coordinator is:

Gwendolyn Hooten (8EPR-SR)
Remedial Project Manager
EPA Region VIII
999 18th Street, Suite 500
Denver, CO 80202-2405
303/312-6571
303/312-6897 (fax)
Email: hooten.gwen@epamail.epa.gov

c. Respondent's Project Coordinator is:

James R. Fricke
Senior Environmental Scientist
Resource Management Consultants

8030 South State
Midvale, Utah 84119-4191
801/255-2626
801/255-3255 (fax)
Email: jfricke@vii.com

The EPA and Respondent Project Coordinators shall be responsible for overseeing the implementation of this Consent Order. EPA and Respondent each have the right to change their respective Project Coordinators. Respondent shall notify EPA in writing of the name, title, address, and telephone number of the new Project Coordinator at least 7 days prior to the change.

42. To the maximum extent possible, communications between EPA and Respondent shall be directed to the Project Coordinators. All written communications, including but not limited to, all notices, approvals, disapprovals, correspondence, and Deliverables submitted under this Consent Order shall be hand-delivered, sent overnight mail, or sent by certified mail, return receipt requested, to the Project Coordinators or to any other persons whom EPA may designate in writing. Documents required to be submitted to EPA under this Order shall be sent in triplicate. One copy of documents to be submitted to EPA shall also be sent to:

Bill Rees
Utah Department of Environmental Quality
168 North, 1950 West
Salt Lake City, Utah 84116
801-536-4167
801-536-4242 (fax)

43. The EPA Project Coordinator shall have the authority vested in the Remedial Project Manager and the On-Scene Coordinator by the NCP. In addition, the EPA Project Coordinator shall have the authority, consistent with the NCP, to halt any Work required by this Consent Order and to take any action authorized by CERCLA or the NCP. The absence of the EPA Project Coordinator from the Site shall not be cause for the stoppage or delay of Work.

44. EPA may arrange for assistance in its oversight and review of the conduct of the EE/CA. EPA's authorized representative may observe Work and make inquiries in the absence of EPA, but is not authorized to modify the requirements of this Consent Order.

XVI. OTHER APPLICABLE LAWS

45. All activities undertaken by Respondent shall be in compliance with all federal, state and local laws and regulations, including permit requirements, unless an exemption is provided by section 121(e) of CERCLA, 42 U.S.C. § 9621(e). Respondent shall identify and seek to obtain all

permits, licenses, and approvals required for performance of Work in sufficient time to perform Work as scheduled.

XVII. RECORD PRESERVATION

46. All records and documents in Respondent's possession that relate in any way to the Site shall be preserved while this Consent Order is in effect and for a minimum of 10 years after termination of this Consent Order. Respondent shall acquire and retain copies of all documents that relate to the Site and are in the possession of its employees, accountants, contractors, or attorneys. After this 10-year period, Respondent shall notify EPA at least 90 days before the documents are scheduled to be destroyed. If EPA requests that the documents be saved, Respondent shall, at no cost to EPA, provide EPA with the documents or copies of the documents.

XVIII. DISPUTE RESOLUTION

47. Any disputes concerning activities or Deliverables required under this Consent Order, excluding the streamlined risk assessment, for which dispute resolution has been expressly provided, shall be resolved as follows: If Respondent objects to any EPA notice of disapproval or requirement made pursuant to this Consent Order, Respondent shall notify EPA's Project Coordinator in writing of its objections within 14 days of receipt of the disapproval notice or requirement. Respondent's written objections shall define the dispute, state the basis of Respondent's objections, and be sent certified mail, return receipt requested. EPA shall respond in writing within 7 days of receipt of Respondent's written objections identifying any potential areas of agreement or disagreement. However, failure by EPA to provide the aforementioned response shall not constitute or be construed to be a finding in Respondent's favor. EPA and Respondent then have an additional 14 days to reach agreement. If an agreement is not reached within 14 days, Respondent may request a determination by the individual delegated authority to execute this Consent Order ("Delegated Authority"). All time limitations set forth herein may be modified by mutual agreement of the parties. Respondent may also request a conference with the Delegated Authority. The Delegated Authority, after any conference requested by Respondent, shall make a final determination. The Delegated Authority's determination is EPA's final decision. Respondent shall proceed in accordance with EPA's final decision regarding the matter in dispute, regardless of whether Respondent agrees with the decision. If Respondent does not agree to perform or does not actually perform the Work in accordance with EPA's final decision, EPA reserves the right in its sole discretion to conduct the Work itself, to seek reimbursement from the Respondent, to seek enforcement of the decision, to seek stipulated penalties, and/or to seek any other appropriate relief.

48. Respondent is not relieved of its obligations to perform and conduct activities and submit Deliverables on the schedule set forth in the Work Plans or any approved Deliverable

while a matter is pending in dispute resolution. The invocation of dispute resolution does not stay the accrual of stipulated penalties under this Consent Order.

XIX. STIPULATED PENALTIES

49. For each day that Respondent fails to perform in accordance with the requirements of this Consent Order, Respondent shall be liable for stipulated penalties. Penalties begin to accrue on the day that performance is due or a violation occurs and extend through the period of correction. Payment shall be due within 30 days of receipt of a demand letter from EPA.

50. Respondent shall pay stipulated penalties for each day that Respondent fails to perform in accordance with the requirements of this Consent Order, as follows:

Penalty Amounts:

<u>Period of Failure to Comply</u>	<u>Penalty Per Violation Per Day</u>
1st day and beyond	\$ 1,000

51. Respondent shall make all payments by forwarding a certified or cashiers check, made payable to the "Hazardous Substance Superfund," as outlined in Section XXI (Reimbursement of EPA's Costs). Payments must be designated as "Stipulated Penalties--Pallas Yard Site" and shall reference the payor's name and address, the EPA Site identification number (Site No. 08-2P), and the docket number of this Consent Order. Copies of the transmittal letter and check shall be sent to the EPA Cost Recovery Program Manager, at the same address as the EPA Project Coordinator, at the time of payment.

52. Respondent shall pay interest on any unpaid balance, which shall begin to accrue at the end of the 30-day period, at the rate established by the Department of Treasury pursuant to 30 U.S.C. § 3717. Respondent shall further pay a handling charge of 1 percent, to be assessed at the end of each 31-day period, and a 6 percent per annum penalty charge, to be assessed if the penalty is not paid in full within 90 days after it is due.

53. Respondent may dispute EPA's right to the amount of penalties assessed by invoking the dispute resolution procedures under Section XVIII (Dispute Resolution) herein. Penalties shall accrue but need not be paid during the dispute resolution period. If Respondent does not prevail upon resolution, all penalties and interest accrued shall be due to EPA within 30 days of resolution of the dispute. If Respondent prevails upon resolution, no penalties or interest shall be paid.

54. The stipulated penalties provisions do not preclude EPA from pursuing any other remedies or sanctions which are available to EPA because of Respondent's violation of or failure or refusal to comply with this Consent Order. Such remedies and sanctions include, but are not limited to, the assessment of penalties pursuant to section 109 of CERCLA, 42 U.S.C. § 9609, the award of treble damages pursuant to section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), and conduct of all or part of the EE/CA by EPA. If EPA intends to seek penalties other than stipulated penalties, it shall first notify Respondent of its election to seek remedies other than stipulated penalties. In no event shall EPA seek or collect both stipulated penalties and statutory penalties for the same violation. Payment of stipulated penalties does not alter Respondent's obligation to complete performance under this Consent Order. The payment by Respondent of assessed stipulated penalties shall fully resolve penalties due for the violation for which stipulated penalties were assessed.

55. EPA may in its unreviewable discretion impose a lesser penalty or no penalty at all for violations subject to stipulated penalties under this Section.

XX. FORCE MAJEURE

56. "Force majeure," for purposes of this Consent Order, is defined as any event arising from causes entirely beyond the control of Respondent and of any entity controlled by Respondent, including its contractors, that delays the timely performance of any obligation under this Consent Order notwithstanding Respondent's best efforts to avoid the delay. The requirement that Respondent exercise "best efforts to avoid the delay" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event (a) as it is occurring, and (b) following the potential force majeure event, such that the delay is minimized to the greatest extent practicable. Examples of events that are not force majeure events include, but are not limited to, increased costs or expenses of any Work to be performed under this Consent Order or the financial difficulty of Respondent to perform such Work.

57. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Order, whether or not caused by a force majeure event, Respondent shall notify by telephone the EPA Project Coordinator, or in his or her absence, the Assistant Administrator, Office of Ecosystems Protection and Remediation, EPA Region VIII, within 24 hours of when Respondent knew that the event might cause a delay. If Respondent claims that the delay is caused by a force majeure event, then, within 5 days after Respondent knew that the event might cause a delay, Respondent shall provide in writing (a) the reasons for the delay; (b) the anticipated duration of the delay; (c) all actions taken or to be taken to prevent or minimize the delay; (d) a schedule for implementation of any measures to be taken to mitigate the effect of the delay; and (e) a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health, welfare, or the environment. Respondent shall

exercise best efforts to avoid or minimize any delay and any effects of a delay. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of force majeure.

58. If EPA agrees that the delay or anticipated delay is attributable to force majeure, the time for performance of the obligations under this Consent Order that are directly affected by the force majeure event shall be extended by agreement of the parties, pursuant to Section XX (Force Majeure) of this Consent Order, for a period of time not to exceed the actual duration of the delay caused by the force majeure event. An extension of the time for performance of the obligation directly affected by the force majeure event shall not, of itself, extend the time for performance of any subsequent obligation, unless EPA determines that the subsequent obligation is also directly affected by the force majeure event or EPA agrees to change the schedule for subsequent events.

59. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, or does not agree with Respondent on the length of the extension, the issue shall be subject to the dispute resolution procedures set forth in Section XVIII (Dispute Resolution) of this Consent Order. In any such proceeding, to qualify for a force majeure defense, Respondent shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay was or will be warranted under the circumstances, that Respondent did exercise or are exercising due diligence by using its best efforts to avoid and mitigate the effects of the delay, and that Respondent complied with the requirements of this Section.

60. Should Respondent prevail in the dispute pursuant to the previous Paragraph, the delay at issue shall not be deemed a violation of or failure or refusal to comply with this Consent Order.

61. Should Respondent carry the burden set forth in Paragraph 59, the delay at issue shall be deemed not to be a violation of the affected obligation of this Consent Order.

XXI. REIMBURSEMENT OF EPA'S COSTS

62. Respondent shall reimburse EPA for all Response Costs not inconsistent with the National Contingency Plan (NCP) incurred by EPA. On an annual basis, EPA will send Respondent a bill requiring payment that consists of a SCORE\$ report, or its equivalent, which includes an accounting of all direct and indirect costs incurred by EPA for which reimbursement is sought.

63. Respondent shall make all payments within 30 days of Respondent's receipt of each bill requiring payment, except as otherwise provided in Paragraph 65. For all payments under this Section, Respondent shall remit a certified or cashier's check made payable to "EPA Hazardous Substance Superfund" and referencing the SSID 08-2P. Respondent shall forward the certified check(s) as follows:

Regular Mail:

Mellon Bank
Attention: Superfund Accounting
Post Office Box 360859
Pittsburgh, PA 15251

Overnight Mail or Airborne mail:

Mellon Bank
3 Mellon Bank Center
Room #153-2713
Pittsburgh, PA 15259

Wire:

Wire transfers must be sent directly to the Federal Reserve Bank in New York City with the following information:

ABA = 021030004
TREAS NYC/CTR/
BNF = /AC-68011008
Mellon Bank

To ensure that the payment is properly recorded by EPA, the following information must be included on the face of the payment check or with the wire transfer:

Pallas Yard Site
Site #: 08-2P
Annual Oversight Billing

Respondent shall send copies of the check or confirmation of wire transfer to the EPA Region VIII Cost Recovery Program Manager, 999 18th Street, Suite 500, Denver, Colorado, 80202.

64. Respondent may contest payment of any Response Costs under Paragraph 62 if it determines that EPA has made an accounting error or if it alleges that a cost item that is included represents costs that are inconsistent with the NCP or are not within the definition of Response Costs. Such objection shall be made in writing within 30 days of Respondent's receipt of the bill and must be sent to the EPA Region VIII Cost Recovery Program Manager. Any such objection shall specifically identify the contested Response Costs and the basis within the NCP for the objection or the alleged accounting error. In the event of an objection, Respondent shall within the 30 day period pay all uncontested Response Costs to EPA in the manner described in Paragraph 63. Simultaneously, Respondent shall establish an interest bearing escrow account in a

federally-insured bank duly chartered in the State of Utah and remit to that escrow account funds equivalent to the amount of the contested Response Costs. Respondent shall send to the EPA Region VIII Cost Recovery Program Manager a copy of the transmittal letter and check paying the uncontested 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, Respondent shall initiate the Dispute Resolution procedures in Section XVIII (Dispute Resolution). If EPA prevails in the dispute, within 5 days of the resolution of the dispute, Respondent shall pay the sums due together with accrued interest to EPA, in the manner described in Paragraph 63. If Respondent prevails concerning any aspect of the contested costs, within 5 days of the resolution of the dispute, Respondent shall pay that portion of the costs together with associated accrued interest for which it did not prevail to EPA in the manner described in Paragraph 63; after such payment, Respondent 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 XVIII (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondent's obligation to reimburse EPA for its Response Costs.

65. In the event that the payment of EPA's Response Costs as required by this Section are not made within 30 days of Respondent's receipt of the bill, Respondent shall pay interest on the unpaid balance at the rate established pursuant to section 107(a) of CERCLA, 42 U.S.C. § 9607. The interest to be paid on Response Costs shall begin to accrue on the date of Respondent's receipt of the bill. Interest shall accrue at the rate specified through the date of Respondent's payment. Payments of interest made under this Paragraph shall be in addition to such other remedies or sanctions available to Plaintiffs by virtue of Respondent's failure to make timely payments under this Section.

XXII. COVENANT NOT TO SUE

66. Except as otherwise specifically provided in this Order, upon issuance of the EPA notice referred to in Section XXIX (Notice of Completion), EPA covenants not to sue Respondent for judicial imposition of damages or civil penalties or to take administrative action against Respondent for any failure to perform removal actions agreed to in this Order except as otherwise reserved herein.

67. Except as otherwise specifically provided in this Order, in consideration and upon Respondent's payment of the response costs specified in Section XXI (Reimbursement of EPA's Costs) of this Order, EPA covenants not to sue or to take administrative action against Respondent under section 107(a) of CERCLA for recovery of response costs incurred by the United States in connection with this removal action or this Order. This covenant not to sue shall take effect upon the receipt by EPA of the payments required by Section XXI (Reimbursement of EPA's Costs).

68. These covenants not to sue are conditioned upon the complete and satisfactory performance by Respondent of its obligations under this Order. These covenants not to sue extend only to the Respondent and do not extend to any other person.

XXIII. CONTRIBUTION PROTECTION

69. With regard to claims for contribution against Respondent for matters addressed in this Order, the Parties hereto agree that the Respondent is entitled to protection from contribution actions or claims to the extent provided by sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4).

70. Nothing in this Order precludes the United States or the Respondent from asserting any claims, causes of action or demands against any persons not parties to this Order for indemnification, contribution, or cost recovery.

XXIV. RESERVATIONS OF RIGHTS AND REIMBURSEMENT OF OTHER COSTS

71. EPA reserves the right to bring an action against Respondent under section 107 of CERCLA for recovery of all response costs including oversight costs not inconsistent with the NCP, incurred by the United States at the Site that are not reimbursed by Respondent, and any future costs incurred by the United States in connection with response activities conducted at this Site.

72. EPA reserves the right to bring an action against Respondent to enforce the response and oversight cost reimbursement requirements of this Consent Order, to collect stipulated penalties assessed pursuant to Section XIX (Stipulated Penalties) of this Consent Order, and to seek penalties pursuant to section 109 of CERCLA, 42 U.S.C. § 9609.

73. Except as expressly provided in this Consent Order, each party reserves all rights and defenses it may have. Nothing in this Consent Order shall affect EPA's removal authority or EPA's response or enforcement authorities including, but not limited to, the right to seek injunctive relief, stipulated penalties, statutory penalties, and/or punitive damages.

74. Following satisfaction of the requirements of this Consent Order, Respondent shall have resolved its liability to EPA for the Work performed by Respondent pursuant to this Consent Order. Respondent is not released from liability, if any, for any response actions taken beyond the scope of this Consent Order or activities arising pursuant to section 121(c) of CERCLA.

XXV. DISCLAIMER

75. In signing this Consent Order the Respondent denies any and all legal and equitable liability and reserves all defenses under any federal, state, local or tribal statute, regulation, or common law for any claim, endangerment, nuisance, response, removal, remedial, or other costs or damages incurred or to be incurred by the United States, the State or other entities or persons or any natural resource damages as a result of the release or threat of release of hazardous substances to, at, from or near the Site, except that any such defense shall be waived in any action by the United States or EPA to enforce the terms of this Consent Order. Respondent does not admit and retains the right to controvert any of the factual or legal statements or determinations made herein in any judicial or administrative proceeding except in an action to enforce this Consent Order. This Consent Order shall not be admissible in any judicial or administrative proceeding against the Respondent, over its objection, as proof of liability or an admission of any fact dealt with herein, except that it shall be admissible in an action by the United States or EPA to enforce this Consent Order.

XXVI. OTHER CLAIMS

76. In entering into this Consent Order, Respondent waives any right to seek reimbursement under section 106(b) of CERCLA, 42 U.S.C. § 9606(b), for costs reimbursed or Work performed under this Consent Order. Respondent also waives any right to present a claim under section 111 or 112 of CERCLA, 42 U.S.C. §§ 9611 or 9612. This Consent Order does not constitute any decision on preauthorization of funds under section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2). Respondent further waives all other statutory and common law claims against EPA including, but not limited to, contribution and counterclaims, relating to or arising out of conduct of this action, provided that nothing herein shall be considered as a waiver of any statutory or common law claim or cause of action that Respondent has or may have against any other agency of the United States or its agents, excluding EPA, including, but not limited to, any claim or cause of action that Respondent may have against the United States and/or agents, excluding EPA, by reason of the activities of the United States and/or its agents, excluding EPA, at or involving the Site which has contributed to the contamination which is the subject of this Consent Order.

77. Nothing in this Consent Order shall constitute or be construed as a release from any claim, cause of action, or demand in law or equity against any person, firm, partnership, subsidiary, or corporation other than respondent, for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, pollutants, or contaminants found at, taken to, or taken from the Site.

78. Respondent shall bear its own costs and attorneys fees relative to the implementation of this Consent Order.

XXVII. FINANCIAL ASSURANCE, INSURANCE, AND INDEMNIFICATION

79. Within sixty (60) days of the effective date of this Consent Order or prior to beginning Work, whichever is earlier, and on each anniversary of the effective date of this Consent Order, Respondent shall establish and maintain sufficient financial assurance for performance of the Work in one of the following forms:

- a. a surety bond guaranteeing performance of the Work;
- b. a trust fund;
- c. A demonstration that Respondent satisfies the requirements of 40 C.F.R. part 264.143(f) or any three of the four following numbered requirements:
 - i. Either of the following two alternatives: (A)(1) total liabilities/net worth equal to 1.5 or less (provided that the liabilities shall include all of Respondent's environmental liabilities for which assurance is given using a financial test), or (2) net income plus depreciation, depletion, and amortization minus \$10 million/total liabilities equal to or greater than 0.10; or (B) a current bond rating for Respondent's most recent bond issues of AAA, AA, A or BBB as issued by Moody's.
 - ii. A ratio of current assets to current liabilities equal to 1.25 or greater.
 - iii. Tangible net worth greater than the sum of the response cost estimate and other obligations covered by a financial test plus \$10 million.
 - iv. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the response cost estimate and any obligations covered by a financial test, or
- d. any method, not mentioned above, approved in writing by EPA.

For the purposes of this Paragraph only, the sum of the response cost estimate is \$2,000,000. For the purposes of annual establishment and/or restatement of proof of financial assurance, the sum of the response cost estimate may be reduced by the actual value of Work performed during the preceding year.

80. Prior to commencement of any Work under this Consent Order, Respondent shall secure, and shall maintain in force for the duration of this Consent Order, and for two years after the completion of all activities required by this Consent Order, Comprehensive General Liability (CGL) and automobile insurance, with limits of \$2,000,000.00, combined single limit, naming as insured the United States. The CGL insurance shall include Contractual Liability Insurance in the amount of \$2,000,000.00 per occurrence, and Umbrella Liability Insurance in the amount of \$2,000,000.00 per occurrence.

81. Respondent shall also secure, and maintain in force for the duration of this Consent Order and for two years after the completion of all activities required by this Consent Order, the following:

- a. Professional Errors and Omissions Insurance in the amount of \$1,000,000.00 per occurrence; and
- b. Pollution Liability Insurance in the amount of \$1,000,000.00 per occurrence, covering as appropriate both general liability and professional liability arising from pollution conditions.

82. For the duration of this Consent Order, Respondent shall satisfy, or shall ensure that its contractors satisfy, all applicable laws and regulations regarding the provision of employer's liability insurance and workers compensation insurance for all persons performing Work on behalf of Respondent in furtherance of this Consent Order.

83. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering the same risks but in a lesser amount, then, with respect to that contractor, Respondent need provide only that portion of the insurance described above which is not maintained by the contractor.

84. Prior to commencement of any Work under this Consent Order, and annually thereafter on the anniversary of the effective date of this Consent Order, Respondent shall provide to EPA certificates of such insurance and a copy of each insurance policy.

85. At least 7 days prior to commencing any Work under this Consent Order, Respondent shall certify to EPA that the required insurance has been obtained by that contractor.

86. The United States shall not be liable for any injury or damages to persons or property resulting from acts or omissions of Respondent or its contractors in implementing the requirements of this Consent Order.

87. Respondent agrees to indemnify and hold the United States Government, its agencies, departments, agents, and employees, harmless from any and all claims or causes of action arising from or on account of acts or omissions of Respondent, its employees, agents, servants, receivers,

successors, or assigns, or any persons including, but not limited to, firms, corporations, subsidiaries, and contractors, in carrying out activities under this Consent Order. The United States Government or any agency or authorized representative thereof shall not be held as a party to any contract entered into by Respondent in carrying out activities under this Consent Order.

XXVIII. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

88. The effective date of this Consent Order shall be the date it is signed by EPA.

89. This Consent Order may be amended by mutual agreement of EPA and Respondent. 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 Consent Order. However, the EPA Project Coordinator may extend the date for submission of Deliverables.

90. No informal advice, guidance, suggestions, assurances, or comments by EPA or its authorized representatives shall modify the terms and conditions of this Consent Order or relieve Respondent of its obligations under this Consent Order, including its obligations to obtain formal approvals. Any Deliverables (other than progress reports), specifications, schedules, and Work required by this Consent Order are, upon written approval by EPA, incorporated into this Consent Order. Any non-compliance with such EPA-approved documents shall be considered a violation of or failure or refusal to comply with this Consent Order.

XXIX. NOTICE OF COMPLETION

91. When EPA determines, after EPA's review of the Final Report, that all removal actions have been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, EPA will provide notice to the Respondent. If EPA determines that any removal actions have not been completed in accordance with this Order, EPA will notify the Respondent, provide a list of the deficiencies, and require that Respondent modify the RAWP if appropriate in order to correct such deficiencies. The Respondent shall implement the modified and approved RAWP and shall submit a modified Final Report in accordance with the EPA notice. Failure by Respondent to implement the approved modified RAWP shall be a violation of this Order.

XXX. SEVERABILITY

92. If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order, Respondent shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

XXXI. SIGNATORIES AND COUNTERPARTS

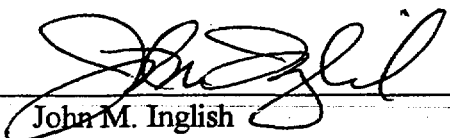
93. The undersigned representatives of Respondent certify that they are fully authorized to enter into the terms and conditions of this Consent Order and to execute and legally bind the parties they represent to this document.


94. This Consent Order may be executed in any number of counterparts, each of which when executed and delivered to EPA shall be deemed to be an original, but such counterparts shall together constitute one and the same document.


IT IS SO AGREED:

RESPONDENT

UTAH TRANSIT AUTHORITY

BY:  DATE: 7/8/98
John M. English
General Manager

BY:  DATE: 7/8/98
Kenneth D. Montague, Jr.
Director of Finance and Administration

BY:  DATE: 7/8/98
Kathryn H. S. Pett
General Counsel

IT IS SO ORDERED AND AGREED:

ENVIRONMENTAL PROTECTION AGENCY, REGION VIII

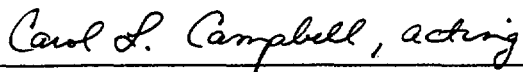
BY:  DATE: 8/13/98
Max H. Dodson
Assistant Regional Administrator
Office of Ecosystems Protection and Remediation
U.S. Environmental Protection Agency

Exhibit 1

Section 1 Introduction

1.1 Purpose of the Statement of Work

This Non-Time Critical Removal Action Statement of Work (SOW), which is Exhibit 1 to the Administrative Order on Consent, EPA Docket No. CERCLA VIII-98-XX (Order), is issued by the United States Environmental Protection Agency (EPA) to Utah Transit Authority (UTA) (the Respondent). This SOW establishes requirements for collecting site data describing the nature and extent of contamination; developing a Streamlined Risk Evaluation; developing the Engineering Evaluation/Cost Analysis (EE/CA); providing support to EPA for community relations activities; and implementation of the Non-Time Critical Removal Action ("NTCRA") to include Operation and Maintenance (O&M) by the Respondent at Pallas Yard.

Submission, review, and approval of documents and activities and other Deliverables shall take place according to the procedures described in the Administrative Order on Consent (AOC).

All activities identified in this SOW, except review and approval of Deliverables and recommended removal action alternative, shall be performed by the Respondent, unless otherwise provided herein. All submissions identified in this SOW shall be prepared and submitted to EPA and the Utah Department of Environmental Quality (UDEQ) in accordance with the requirements of the AOC and the schedule for submission of Deliverables by Respondent shown in Exhibit 2 of this SOW or AOC. The schedule may be modified only with the written approval of EPA.

The community relations activities include the development of a formal community relations plan (CRP) that describes all the community relations activities, community interviews, setting up a repository, published notices in a major local paper of general circulation of public meetings and conducting public meetings.

Section 2

Submission of Deliverables

2.1 Schedule

Exhibit 2 of this SOW contains a schedule with which Respondent shall comply in fulfilling the requirements of this SOW. Exhibit 2 does not specify due dates for all Deliverables and activities listed in Exhibit 2 because it is not possible to schedule all future work at this time. Where Exhibit 2 does not specify due dates, Respondent shall propose due dates for approval by EPA and shall comply with the due dates approved by EPA.

2.2 Critical Path Method Diagrams and Other Scheduling Matters

Respondent shall plot the due dates listed in Exhibit 2 and other approved schedules for submission of Deliverables and performance of activities on time-scaled, computerized, critical path method ("CPM") diagrams. Respondent may prepare CPM diagrams for the design phase; construction phase; and the operation and maintenance phase of the project.

Respondent shall plot schedules on reproducible paper and show the sequence and interdependence of activities required for complete performance of all work items, including estimated EPA and UDEQ review periods.

Respondent shall include a listing of the required Deliverables and activities in the CPM diagrams in tabular format and sort such deliverables and activities according to the projected start and finish dates.

Meetings including telephone conferences to discuss schedule status issues, delays, or changes to the schedule, streamlining, or any other issue related to schedule may be called by EPA or Respondent. The Respondent shall explain any proposed schedule modifications and the reason(s) thereof, and any measures proposed to be taken to maintain the overall schedule. EPA will either approve or disapprove the modifications.

2.3 Review of Deliverables

Respondent shall submit the Deliverables identified in this SOW to EPA and UDEQ for review and approval and in accordance with the schedule in Exhibit 2 of this SOW. Except as otherwise provided herein, Respondent shall submit four (4) copies of each Deliverable specified in this SOW to EPA and two (2) copies to UDEQ. Those documents identified in Appendix B delivered to EPA prior to the signing of the AOC are exempt from this requirement. One of the four copies sent to EPA must be an unbound copy suitable for copying.

EPA, in consultation with UDEQ, will review Deliverables submitted by the Respondent to determine if the Deliverables meet all objectives and requirements outlined in this SOW. EPA retains the right to approve the submission; or disapprove the submission and direct Respondent to re-submit the document after incorporating EPA's comments. None of these actions by EPA implies any warranty of performance or that the response action, when constructed, will meet Performance Standards, will function properly, or that the NTCRA or the work will be certified complete by EPA.

In instances where deliverables are required to be modified by Respondent, EPA will provide verbal notice on an expedited schedule that will be followed-up with written comments on a separate schedule. Respondent shall correct the deficiencies and resubmit the Deliverable for approval, a signature page, with approval or disapproval and comments will accompany all deliverables. In the event of disapproval or a request for a modification of a Deliverable, the deliverable shall be resubmitted to EPA and UDEQ incorporating the required modifications within ten (10) days following receipt of disapproval or request for a modification, or such time as specified by EPA in its notice.

In the case of approval with modifications or disapproval of submissions, EPA, in its sole discretion, may give approval to proceed with subsequent Deliverables or other activities. In any event, Respondent shall take all actions with respect to Deliverables that are disapproved or approved with modifications.

Respondent may submit verbal requests by telephone conference with EPA for deviations from approved planning documents that are required during field work to avoid schedule delays and that will not affect data usability or personnel safety for approval by, and in the sole discretion of, EPA's Project Coordinator. Respondent shall provide written documentation of the verbal request within ten (10) days. EPA's contractor (if any) is not authorized to approve such requests.

2.4 Confirmation of Deliverable Due Dates

The Respondent shall confirm the date for submission of a Deliverable at least five (5) days in advance to allow EPA and UDEQ to schedule review of the Deliverable(s).

Section 3

Respondent's Key Personnel

3.1 Project Coordinator

All aspects of the Work to be performed by the Respondent shall be under the direction and supervision of a qualified project manager or coordinator. On or before the effective date of this Administrative Order on Consent (AOC), Respondent shall notify EPA in writing of the name, title, address, telephone number, and qualifications of the project coordinator and the identity and qualifications of the primary support entities, staff, and contractors proposed to be used in carrying out Work under this SOW. EPA will issue a notice of disapproval or authorization to proceed. If at any time the Respondent proposes a different project coordinator, support entities, staff, or contractors, the Respondent shall notify EPA and must obtain an authorization to proceed from EPA, pursuant to the AOC, before such persons perform any work under this SOW.

3.2 The Removal Action Quality Assurance Official

The Quality Assurance Official (QA Official) shall perform oversight during design and implementation of the NTCRA to confirm to EPA and the Respondent that the selected response action is constructed to meet project requirements. The QA Official shall be a qualified, registered Professional Engineer who is an employee of the design contractor (which will be independent of the construction contractor).

The procedures described in Subsection 3.1 for selection of the project manager shall also apply to the selection of the QA Official. The Respondent shall provide documentation of the QA Official's qualifications in the Design Work Plan. Such documentation shall consist of the following:

- Training, experience, and capabilities to perform quality assurance activities during design and construction projects;
- Past experience in design and construction at hazardous waste projects; and
- A description of work done at other CERCLA National Priorities List (NPL) sites.

3.3 Laboratory Qualifications

The Respondent shall provide documentation of their testing laboratory's qualifications in the QA/QC report and the Design Work Plan or as an addendum to that Deliverable when laboratory services are required. Such documentation shall consist of the following: certificate showing that the laboratory meets industry standards; laboratory standard operating procedures if requested by EPA; and evidence that the testing laboratory can achieve the required detection limits for comparison to Performance Standards.

Section 4 Work to be Performed

4.1 General Requirements for Implementation of NTCRA

4.1.1 Meetings and Progress Reports

This Subsection describes requirements for the Respondent's participation in status and other meetings, provision of support to EPA and UDEQ in meetings, written monthly progress reports and weekly construction reports, and community relations.

4.1.1.1 Status Meetings

Upon signing of this Administrative Order on Consent (AOC), the Respondent shall hold status meetings on an as-needed basis with EPA and UDEQ to discuss the progress of the work. During the design and implementation of the response action, the Respondent shall hold status meetings on an as-needed basis, as determined by EPA and the Respondent, with EPA and UDEQ to discuss performance and compliance aspects of the systems constructed. The status meetings shall cover, at a minimum, the following information:

- (1) A description of actions taken to comply with this Consent Order, including plans and actions completed, during the preceding period;
- (2) A description of 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;
- (3) Work planned for the next period with schedules relating such Work to the overall project; and
- (4) All results of sampling and tests and all other data collected or received by Respondent during the preceding period week.

Respondent shall provide minutes of each of these meetings to EPA and UDEQ on or before the next meeting is initiated while this Consent Order is in effect.

4.1.2 Progress Reports

Respondent shall submit to EPA and UDEQ a minimum of three (3) written progress reports during the design, and implementation of the NTCRA. Respondent shall submit these reports on an as needed basis until such time as EPA notifies the Respondent of its Certification of Completion (see Section 5). After EPA so notifies the Respondent, Respondent shall submit to EPA and UDEQ annual O&M status reports. These reports shall be due to EPA and UDEQ on or by the tenth (10th) day of the month following the reporting period. Respondent shall prepare periodic progress reports containing, at a minimum, the following information:

- (1) A description of actions taken to comply with this Consent Order, including plans and actions completed, during the preceding period;
- (2) A description of 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;
- (3) Work planned for the next period with schedules relating such Work to the overall project; and
- (4) All results of sampling and tests and all other data collected or received by Respondent during the preceding period.

4.1.3 Weekly Construction Reports

Respondent shall submit to EPA and UDEQ weekly construction reports during the implementation of the NTCRA. The weekly reports shall discuss, at a minimum, the daily activities, field adjustments, change orders, summaries of problems and actions to rectify problems, coordination activities, estimated percent complete by critical path work task, quantity of waste generated, health and safety issues, and other such information as is customary in the industry. The weekly report shall be compiled and delivered to EPA and UDEQ every other Tuesday.

4.2 Deliverables for Investigation of Nature and Extent of Contamination and Engineering Evaluation/Cost Analysis

EPA has received a number of documents prior to the signing of this AOC (see appendix B) and these documents in concert with the deliverables specified in this SOW shall constitute deliverables for the investigation of the nature and extent of contamination and the EE/CA.

4.2.1 Sampling Work Plans

The Respondent shall prepare a sampling and analysis plans that provide a process for obtaining data of sufficient quality and quantity to satisfy data needs. The sampling and analysis plans shall consist of two parts:

- (1) The field sampling plan, which describes the number, type, location of samples and type of analyses; and
- (2) The quality assurance project plan, which describes policy, organization, and functional activities and the data quality objectives and measures necessary to achieve adequate data for use in planning and documenting the removal action.

Much of the data collected on Pallas Yard was collected prior to the signing of this AOC, thus the Respondent has developed a Data Quality Report, after the fact, that describe the field sampling methods, the quality assurance and quality control (QA/QC) exercised in the field and in the laboratory, the number, type, location of samples and type of analyses. The Respondent has evaluated in this same report, the QA/QC of the data collected at Pallas Yard. The report has evaluated the Precision, Accuracy, Representativeness, Comparability and Completeness (PARCC) parameters of the data as well as the following:

- (1) Frequency of field duplicate samples, matrix spike/matrix spike duplicates, laboratory control samples. Summary statistics for each item:

- relative percent difference for each duplicate pair, maximum RPD, number of exceedences;
- summary of matrix spike and laboratory control sample recoveries (any recoveries outside control limits);
- summary results for and laboratory blanks, note any problems with contamination;
- summary results for any quality control samples (blind standards);

- statement that all holding times were met, all chain of custody procedures were followed;
 - where possible, quality assurance/quality control data should be presented for each batch/sampling event.
- (2) Provide a listing of all analytical methodologies including sample preparation and analytical methods.
- (3) Standard Operating Procedures (SOP's) for all field practices:
- Sample collection (both soil and water; including surface water);
 - Well and Piezometer drilling, logging, and completion;
 - Chain of Custody procedures;
 - Water level measurements; and
 - Geoprobe methodologies.

4.2.2 Health and Safety Plan

Within ten (10) days after the signing of this AOC, the Respondent shall submit to EPA and UDEQ a Health and Safety Plan (HSP) that specifies employee training, protective equipment, medical surveillance requirements, and standard operating procedures for all field activities related to the collection of data to define the nature and extent of contamination; design and implementation of the NTCRA. The plan shall conform to the following:

- CERCLA Sections 104(f) and 111(c)(6);
- EPA Order 1440.2 - *Health and Safety Requirements for Employees Engaged in Field Activities*;
- EPA Order 1440.1 - *Respiratory Protection*;
- *EPA Occupational Health and Safety Manual*;
- *EPA Interim Standard Operating Safety Guide*;
- 29 CFR Part 1910, *OSHA Standards for General Industry*;
- National Institute of Occupational Safety and Health ("NIOSH") *Manual of Analytical Methods*, Volumes I to VIII;

- Threshold limit values ("TLV") for chemical substance and physical agency in the work environment with intended changes adopted by American Conference of Governmental Industrial Hygienists, latest edition; and
- ANSI Z 88.2-1980 American National Standard, Practices for Respiratory Protection.

The Health and Safety Plan can be amended during the remedial design and prior to the implementation of the NTCRA. EPA and UDEQ may provide recommendations for the improvement of the HSP however, the HSP does not require approval by EPA or UDEQ.

4.2.3 Engineering Evaluation/Cost Analysis (EE/CA)

Respondent shall prepare the EE/CA using the appropriate guidance:

USEPA, 1993 - Guidance on Conducting Non-Time Critical Removal Actions under CERCLA, OSWER EPA/540-R-93-057 Publication 936.0-32 PB93-963402 August 1993

4.3 Deliverables for Design and Implementation of NTCRA

4.3.1 Information Transfer

For data transfer by disk or phone modem among the Respondent, EPA, and UDEQ, Respondent may use dBase III Plus or dBase V for Windows. If the Respondent chooses not to use dBase III Plus or dBase V for Windows, they shall provide the required data in ASCII format, or any other format EPA selects.

For analytical data generated during design/NTCRA to include O&M, the Respondent shall electronically transfer to EPA and make available to UDEQ any analytical data results identified in the Progress Reports described in this SOW.

The Respondent shall also supply EPA with hard copies of all laboratory data packages collected during the design and implementation of the NTCRA.

4.3.2 Document Control

The Respondent shall establish a document control system which meets the following objectives:

- Facilitate efficient retrieval of information while maintaining accurate records of each document's location and custodian
- Establish and maintain a master file containing documents required to be generated pursuant to the Order, including back-up documentation necessary to prepare the deliverables
- Establish procedures to ensure that documents are routinely placed in the master file in a consistent and logical manner

Commencing thirty (30) days after certification by EPA of the completion of the NTCRA, Respondent shall submit a document inventory to EPA and UDEQ. The Respondent shall submit the document inventory to EPA and UDEQ annually if information is being generated at the site. Respondent shall supply EPA with the originals or legible copies of documents requested by EPA for inclusion in the EPA Site File within thirty (30) days of such a request. All documents supplied by the Respondent shall include a cover sheet containing the Site name and the information required to be included in the document inventory for each document.

4.3.3 Health and Safety Plan

The Respondent shall submit to EPA and UDEQ a Health and Safety Plan (HSP), before any work related to the NTCRA work plan is initiated, that specifies employee training, protective equipment, medical surveillance requirements, and standard operating procedures for all field activities related to the implementation of the NTCRA which conforms to the following items:

- CERCLA Sections 104(f) and 111(c)(6);
- EPA Order 1440.2-*Health and Safety Requirements for Employees Engaged in Field Activities*;
- EPA Order 1440.1-*Respiratory Protection*;
- *EPA Occupational Health and Safety Manual*;
- EPA Interim Standard Operating Safety Guide;
- 29 CFR Part 1910, *OSHA Standards for General Industry*;
- National Institute of Occupational Safety and Health ("NIOSH") *Manual of Analytical Methods*, Volumes I to VIII;
- Threshold limit values ("TLV") for chemical substance and physical agency in the work environment with intended changes adopted by American Conference of Governmental Industrial Hygienists, latest edition;
- ANSI Z 88.2-1980 American National Standard, Practices for Respiratory Protection; and
- State health and safety standards deemed appropriate by UDEQ.

EPA and UDEQ may provide recommendations for the improvement of the HSP, however the HSP does not require approval by EPA or UDEQ.

4.3.4 Removal Design

4.3.4.1 Removal Design Work Plan

Within thirty (30) days after EPA's issuance of the Action Memorandum (AM), Respondent shall submit a Removal Design (RD) Work Plan to EPA and UDEQ. The RD Work Plan shall provide for design of the response action set forth in the AM which will detail performance standards. The RD Work Plan shall include plans and schedules for implementation of all RD tasks described in this SOW. The requirements for development of the design deliverables are discussed below. Major guidance documents to be followed in the development of these deliverables are listed in Appendix A of this SOW. The respondent has prepared Quality Assurance Project Plans for previous Field Investigation activities at the site. The respondent shall follow the previously submitted QAPP's for consistency.

4.3.5 Design Reviews

4.3.5.1 Design Submissions

Respondent shall submit to EPA and UDEQ, by the deadlines specified in the approved RD Work Plan, the following documents relating to the design of the NTCRA:

Pre-Final (90 Percent) Design Submission. The Pre-Final Design Submission shall include all Deliverables described below.

The Pre-Final Design Submission shall represent the Respondent's best efforts at complete NTCRA design. It shall include drawings, specifications, and general conditions, a Design Basis Memorandum, any updated schedule, and any updated cost estimate. Respondent shall provide the Design Basis Memorandum, which shall identify work activities using a CPM schedule. Activities shall be broken down in sufficient detail to identify each component of the work, its duration, and its interrelationships with and dependencies on other activities. Respondent shall provide an engineer's cost estimate, which shall include estimated quantities and unit prices for all items. Items normally estimated based on a percentage of other project components need not be quantified, but may be shown as a percentage of other appropriate costs. All items shall be complete and ready for final review by EPA and UDEQ. Full-size drawings are not required.

Final Design Submission. This Submission shall include the complete and final NTCRA Design. This Submission shall include all items required for the Pre-Final Design Submission, and shall incorporate any necessary modifications resulting from review of the Pre-Final Design Submission by EPA and UDEQ. Drawings, specifications, and general conditions shall be ready for procurement and implementation by the Respondent. Full-size drawings are required. In addition, Respondent shall provide any supplementary design basis data and calculations, along with an updated schedule and/or updated cost estimate if design revisions cause any modifications to the Pre-Final Design Submission.

Upon approval of the Final Design Submission by EPA, Respondent shall provide to EPA and UDEQ one reproducible set of the complete Project Manual (technical specifications and general conditions), and one complete, full-size set of construction drawings on reproducible, archival quality media (such as Mylar or equivalent).

4.3.5.2 Additional Requirements for Design Submissions

In developing the Pre-Final Design Submissions, Respondent shall revise or add to the material originally presented in the Preliminary, respectively, as deemed necessary by EPA. If modifications of the design or design basis occur from one of the enumerated Submissions to another, the Respondent shall submit to EPA and UDEQ either revised Technical Memoranda or addenda that document the modifications. These revisions or addenda shall present the information necessary to adequately document the modification. Respondent shall submit such revisions or addenda (or a statement that neither is required) with the Pre-Final Design Submissions, as necessary.

The construction schedules and engineer's cost estimates described above shall be refined and updated at all stages of the design and submitted to EPA and UDEQ with the construction drawings and specifications. The Respondent shall provide three (3) copies of the construction schedules and engineer's cost estimates for each of the above-referenced design Submissions to EPA, one unbound copy to EPA, and three (3) to UDEQ.

The construction schedule shall identify major tasks, the duration of the tasks, the interrelationship between major tasks, and established milestone dates for construction activities. Respondent shall also identify key issues that may affect the schedule. The construction schedule shall be prepared by the Respondent according to the requirements presented in Section 2 of this SOW.

The engineer's cost estimates for constructing the NTCRA shall be based on the drawings and specifications, and shall consider the anticipated health and safety requirements and construction timing (e.g., provisions relative to weather conditions shall be included). These estimates shall also reflect the costs of storage and disposal of any waste generated during construction activities and other phases of design/NTCRA. O&M costs and associated monitoring costs, and the costs of performance and compliance monitoring shall also be presented. Cost estimates shall include supporting data in appendices, such as quotation letters, estimating work sheets, telephone memoranda documenting vendor cost data, and similar support data.

Each design Submission described in this SOW shall be submitted to EPA for approval. If needed, a design review meeting among EPA, UDEQ, the Respondent, and Respondent's project coordinator shall be held. The purpose of each review meeting shall be to discuss EPA and UDEQ review comments and the Respondent's proposed responses to such comments. EPA and UDEQ may present other comments at the meeting. All written comments shall be responded to in writing by the Respondent. A review meeting will not be held after Respondent submit the Final Design Submission unless EPA, in its sole discretion, determines that such a meeting is necessary.

4.3.6 Removal Action Support Plans

The following plans, which support NTCRA, shall be submitted to EPA and UDEQ by the Respondent concurrent with the Pre-Final Design Submission.

4.3.6.1 Construction Quality Assurance/Quality Control (QA/QC) Plan

The Respondent shall submit to EPA and UDEQ a Construction QA/QC Plan. The purpose of the Construction QA/QC Plan is to ensure that the completed NTCRA meets or exceeds all requirements of the approved Final Design Submission. The Construction QA/QC Plan shall detail the approach to QA/QC during construction activities at the Site, and shall specify a QA Official to conduct a QA/QC program during the construction phase of the project. This SOW details requirements associated with the QA Official. Ultimately, however, Respondent's project coordinator, on behalf of the Respondent, shall be responsible for all activities necessary to manage, control, and document work to ensure compliance with the project requirements, plans, and specifications.

The frequency of observation, inspection, and testing shall be sufficient to permit the QA Official to professionally evaluate the adequacy of the work and its conformance to the QA/QC requirements in the QA/QC Plan. At the completion of construction, as determined by EPA, in its sole discretion, the QA Official shall be required to certify that, to the best of the QA Official's knowledge and based on the QA Official's observations, inspections, and tests, no substantial deviations from the approved drawings and specifications, as amended by approved change directives, occurred. Such certification is distinct from Respondent's Reports requesting certification of completion of the NTCRA and/or the work. The QA Official's independent review shall be of sufficient scope to permit such certification.

The Construction QA/QC Plan shall clearly distinguish between QA and QC aspects with respect to the RA. The following Subsections present separate requirements for QA and QC during construction. The Construction QA/QC Plan shall, as deemed appropriate by EPA, be consistent with the requirements and guidelines in Appendix A, Items 19 and 20.

For the purposes of the NTCRA, QA is defined as activities performed by the Respondent in ensuring that the Respondent have constructed the NTCRA according to the accepted design submissions, and that the contractor has adequately followed and is in compliance with the approved construction QC procedures. QC is defined as monitoring activities performed by the Respondent to ensure that construction of the NTCRA complies with the design submissions.

4.3.6.2 Contingency Plan

As part of the Removal Action Work plan, the Respondent shall submit a Contingency Plan that will address responses to releases of Waste Material to the environment during implementation of the NTCRA to include O&M. The purpose of this plan is to set forth procedures Respondent shall follow to protect the local off-site, potentially affected population and environment. The Respondent shall include the following items in the Contingency Plan:

- Name of person responsible for responding in the event of an emergency
- First-aid and medical information including names of personnel trained in first aid; clearly marked map with the locations of medical facilities; all emergency phone numbers (i.e., fire, rescue, local hazardous material teams, and the National Emergency Response Team)

- Spill response for potential spills and discharges from materials handling, storage, and/or transportation, including methods and facilities required to prevent contamination of soil, water, atmosphere, uncontaminated structures, equipment, or material from the discharge of wastes due to spills or systems or human failure; equipment and personnel required to contain any release and to properly manage contamination due to spillage or systems or human failure; and decontamination measures that may be required to remove contamination from previously uncontaminated structures, equipment, or material
- Names of people to be notified in the event of an emergency including federal, state, and local authorities, and the person responsible for notifying the authorities

In developing the Contingency Plan, the Respondent shall consider and use, as deemed appropriate by EPA, EPA guidance on chemical emergency preparedness (see Appendix A, Item 16 of this SOW), and other emergency response guide books (see Appendix A, Items 14 and 15 of this SOW). Approval of the Contingency Plan by EPA of the Order is required before Respondent commence any construction activities at the Site.

4.3.6.1.1 Quality Assurance

The following items shall be described in the Construction QA/QC Plan:

- Responsibilities, authorities, and lines of communication for all organizations and key personnel involved in the implementation of QA procedures for construction of the NTCRA
- Qualifications of the QA personnel to demonstrate that they possess the training and experience necessary to fulfill their identified responsibilities
- Independent observations and tests that will be used to monitor construction, and the frequency of these activities
- Sampling activities, sample size, sample locations, frequency of testing, acceptance and rejection criteria, and plans for implementing corrective measures

- Description of the reporting requirements for QA activities, including such items as daily summary reports, schedule of data submissions, inspection data sheets, problem identification and corrective measures reports, evaluation reports, acceptance reports, and final documentation. Respondent shall include a listing and description of the project file to be maintained during construction activities, which satisfies the reporting requirements described herein. Respondent shall include provisions for the final storage of all records
- Corrective measures that will be implemented if QA requirements and schedule requirements are not met
- Procedures that will be used to provide timely response to comments and unpredictable events

4.3.6.1.2 Quality Control

The Respondent's project coordinator, on behalf of the Respondent, shall be responsible for all activities necessary to manage, control, and document the performance of the work to ensure compliance with the Final Design Submission. The following construction QC items shall be described in the Construction QA/QC Plan:

- A description of the organization providing QC, including lines of authority and reporting to the QA Official
- The name, qualifications, duties, responsibilities, and authorities of each person assigned a QC function
- Methods of performing the QC inspections, including when inspections shall be made and what will be inspected
- QC testing procedures for each specific test, including information that verifies that personnel and laboratories performing the tests are qualified and the equipment and procedures to be used comply with applicable standards
- Procedures for scheduling and managing submissions, including those of subcontractors, off-site fabricators, suppliers, and purchasing agents
- Reporting procedures, including frequency of reports and general or suggested report formats

A copy of a signed letter from the Respondent's project coordinator shall be provided to EPA and UDEQ, which stipulates that the contractor performing the NTCRA has read, agrees with, and will follow QA/QC procedures outlined in the approved Construction QA/QC Plan.

Approval of the Construction QA/QC Plan by EPA is required before Respondent may begin construction activities at the Site.

4.3.7 Waste Management Plan

The Respondent shall submit to EPA and UDEQ a Waste Management Plan. The purpose of this plan is to set forth procedures Respondent shall follow to ensure that wastes generated at the Site are properly inventoried, stored, and disposed. This plan shall address, at a minimum, the following items for each phase (i.e., NTCRA to include O&M) of the cleanup, as appropriate:

- Estimated volume, character, and weight of each type of waste that will be generated by the NTCRA
- Method of separating and storing hazardous wastes, if any, compliant with pertinent RCRA definitions and regulations
- Method of maintaining a waste inventory and tracking
- Method of waste transportation, if any
- Ultimate disposal method for wastes, if known at the time the plan is developed. If the ultimate disposal method is unknown at that time, the Respondent shall develop a Supplement to describe the ultimate disposal methods before any waste is disposed
- Approach for removing, storing, and disposing other contaminated miscellaneous material in the event they are discovered during construction

~~Respondent shall be responsible for disposal of all wastes generated at the Site before and during design/NTCRA to include O&M. All wastes sent off-site shall comply with *Procedures for Planning and Implementing Off-Site Response Actions*, 58 Federal Register 49200 (September 22, 1993), as modified or amended.~~

4.3.8 Removal Action

The NTCRA process begins with the preparation of the NTCRA Work Plan which shall set forth plans and schedules for the actual implementation of the remedy.

4.3.8.1 Removal Action Work Plan

The Respondent shall submit to EPA and UDEQ an NTCRA Work Plan within three (3) days after approval by EPA of the Final Design Submission. Respondent shall, to the extent deemed necessary by EPA and UDEQ, revise the NTCRA Work Plan to provide for the performance of the NTCRA at the Site. The NTCRA Work Plan shall provide for construction of the remedy in accordance with the Action Memorandum (AM), this SOW, and the approved Final Design Submission. Respondent shall also establish appropriate procedures for effective administration of the NTCRA; the procedures shall be described in the NTCRA Work Plan.

Respondent, when preparing the deliverables required under the NTCRA Work Plan, shall also provide schedules for implementation, procedures for implementation, and any necessary modifications of the Final Design.

4.3.8.1.1 Site Management Plan

Within the Removal Action work Plan, Respondent shall submit a Site Management Plan to EPA and UDEQ. The Site Management Plan shall describe requirements to be met by Respondent to assure Site security, access, contingency procedures, management responsibilities, waste handling and disposal, and control during design and implementation of the response action and O&M. The Site Management Plan shall also address the requirements listed in the following paragraph.

At all times during design and implementation of the response action, and O&M, Respondent shall notify EPA of work schedules for the NTCRA activities. Respondent shall maintain facilities to accommodate field activities associated with the NTCRA and to facilitate EPA and UDEQ oversight of the Respondent's Work. The Respondent shall establish a security program to prevent unauthorized entry into work areas and vandalism and tampering with facilities, equipment, and monitoring systems. Respondent maintain open access to common work areas such as storage facilities, laboratories, decontamination facilities, and parking areas. Respondent shall allow EPA and UDEQ to use the Respondent's decontamination pad, personnel decontamination facilities, access road, parking areas, and any other facilities deemed appropriate by EPA and UDEQ. During O&M, Respondent shall implement security measures relative to the NTCRA.

4.3.8.2 Construction Administration

The Respondent shall initiate and maintain effective communications with EPA and UDEQ during the NTCRA construction. The Respondent shall execute the NTCRA according to the requirements and procedures developed in the approved NTCRA Work Plan.

It is anticipated that two categories of change directives may be necessary:

1. Those changes that will not affect the final designs of the various components of the sitewide remedy.
2. Those changes that will affect the final designs.

Prior approval from EPA is required for any proposed change directive that has the potential for affecting the designs of any component of the remedy. EPA's contractor (if any) is not authorized to grant approval for change directives.

Proposed change directives that do not affect the final designs of the components of the remedy will not require EPA approval, but must be confirmed in writing in the Construction Administration Compliance Reports.

The QA Official shall perform construction oversight activities on behalf of the Respondent. The QA Official shall attend all regular construction meetings and all emergency meetings held by the Respondent's project coordinator.

Respondent shall provide EPA and UDEQ with access to their construction records and shall provide copies of such records upon request by EPA and/or UDEQ. These records include:

- Daily records, diaries, and weekly summary reports of construction activities
- Construction submissions
- QC test results and construction inspection reports
- Updated drawings that reflect ongoing construction activities

Respondent shall submit to EPA and UDEQ monthly Construction Administration Compliance Reports to allow EPA and UDEQ to review whether the administration of construction is in compliance with the Order. Respondent shall submit these reports on or by the tenth (10th) day of each month following the date EPA approves the NTCRA Work Plan until such time as EPA may notify the Respondent. The reports shall include, at a minimum: certificates of equipment, materials, and workmanship; change directives; claim documentation; test and survey reports; and weekly schedule updates.

4.3.8.3 Preconstruction Conference

The Respondent shall schedule a Preconstruction Conference to occur at least five (5) days before the start of construction activities. The participants shall include representatives of all the parties involved in the NTCRA including, but not limited to, EPA's Project Coordinator, EPA's contractor (if any), UDEQ's Project Coordinator, Respondent, Respondent's project manager, and the QA Official. This meeting will establish relationships among all parties involved in the implementation of the NTCRA. The agenda shall include:

- Introducing all attendees and their affiliations
- Discussing EPA expectations for the project
- Reviewing general project scope and requirements specified in the Order
- Reviewing construction QA/QC procedures
- Reviewing the project schedule
- Establishing scheduled meetings and briefings during construction
- Reviewing roles and responsibilities of all parties
- Reviewing document control procedures
- ~~Discussing procedures to resolve misunderstandings or disputes during construction~~
- Discussing approval of modifications to the NTCRA that may occur during construction
- Reviewing emergency actions and the Contingency Plan during construction
- Reviewing activities for construction completion

The Respondent shall prepare a meeting summary and distribute it to all attendees within five (5) days of the Preconstruction Conference.

4.3.8.4 Access, Facilities

Respondent shall provide site access to EPA, EPA's contractor(s), and the State.

4.3.8.5 Operation and Maintenance (O&M)

O&M means all activities required to maintain the effectiveness of the NTCRA as required under the Operation and Maintenance Plan approved or developed by EPA pursuant to this SOW. The Respondent shall perform O&M of the NTCRA.

This Section presents the requirements for the O&M and the performance and compliance monitoring of the NTCRA.

4.3.8.6 Operation and Maintenance (O&M) Plan

Respondent shall develop an O&M Plan to address startup and the general operation of the entire NTCRA if needed. During construction activities, the O&M Plan shall be expanded into an O&M Manual or Manuals (if necessary) pursuant to this SOW. The O&M Plan shall include detailed O&M procedures. The plan shall include the following:

- Brief description of each system and its intended performance
- Planned procedures for startup and shutdown of the NTCRA, if appropriate
- List of O&M activities and records that will be maintained
- List of equipment for which manufacturer's instructions will be included in the O&M Manual(s)
- Emergency action plan for release of Waste Material
- Summary of applicable regulatory requirements for the O&M

This deliverable shall be submitted to EPA and UDEQ concurrent with the Pre-Final Design Submission.

4.3.8.7 Operation and Maintenance (O&M) Manual(s)

The O&M Manual (if any) shall be submitted within thirty (30) days after EPA approves the O&M Plan. The approved O&M Plan shall be used as the basis for the O&M Manual(s).

The O&M Manual shall include the following:

- All applicable portions of the O&M Plan
- Equipment O&M manuals and data provided by equipment vendors
- Maintenance procedures and required frequencies
- Instructions for overall system operation

4.3.8.8 Site Monitoring Plan

The Respondent shall submit to EPA and UDEQ a Site Monitoring Plan. The Site Monitoring Plan shall address the monitoring program for the remedy and shall be submitted within 30 days of the Final Design Submission. The objectives of the monitoring program include the following: to ensure that the remedy is performing as designed and to ensure that the remedy complies with the Performance Standards.

The Site Monitoring Plan shall include the following items:

- Objectives of the monitoring program
- Detailed description of the program components
- Map and description of all monitoring locations for performance monitoring and a separate map for compliance monitoring
- Well installation methods, and well piezometer diagrams showing the depth, casing, screen interval, and backfill material
- Sampling frequency, monitoring parameters, and sampling methods, including type of samples (e.g., grab or composite)
- Sample analytical parameters and analytical methods, including detection limits required to compare water and air quality to the Performance Standards
- Water level monitoring frequency, equipment, and methods to obtain water level measurements
- Well maintenance and abandonment procedures
- Data evaluations
- Reporting methods and procedures for tracking and maintaining sample records
- QA/QC methods, including data validation methods
- Schedule of well installation and monitoring activities
- Reporting requirements

In developing the Compliance Monitoring Plan, the Respondent shall consider and use, as deemed appropriate by EPA, EPA's methods for field operations (Appendix A, Item 10), guidance on data quality objectives (Appendix A, Item 8), methods for analytical procedures (Appendix A, Items 2, 3, 4, 5, and 9), and existing monitoring plans for the Site.

4.3.8.8.1 Data Validation

The Site Monitoring Plan shall describe the data validation procedures Respondent shall follow to validate monitoring data. In addition, the plan shall describe the procedures Respondents shall follow to validate chemical analytical data associated with the following aspects of the design and response action:

- Sampling associated with additional design/NTCRA investigations
- Monitoring of work to be performed during the period before EPA certifies completion of the NTCRA
- Performance and compliance monitoring of the NTCRA

The Respondent shall describe the validation procedures in detail in the appropriate plans. These procedures shall be approved by EPA before their implementation. In developing the data validation procedures, the Respondent shall consider and use, as appropriate, EPA data validation procedures (Appendix A-Items 6 and 7) and EPA guidance documents such as *EPA NEIC Policies and Procedures Manual*, May 1978, revised November 1984, CEPA 330/9-78-001-R and *Contract Lab Program Statement of Work for Inorganic Analysis* and the *Contract Lab Program Statement of Work for Organic Analysis*, February 1988.

4.3.8.9 Well Abandonment Plan

As part of the site monitoring plan, the Respondent shall submit a Well Abandonment Plan to EPA and UDEQ. This plan shall address well abandonment during design/NTCRA to include O&M and site monitoring after completion of the NTCRA. The Well Abandonment Plan shall include the following:

- Wells recommended for abandonment
- Rationale for abandonment
- Procedures used to abandon the well
- Procedures for disposal of contaminated well materials (if appropriate)

- Schedule for well abandonment

The Respondent shall establish a well maintenance program and maintain all wells installed as part of the Emergency Response and Remedial Investigation activities, and any off-site wells installed as part of background evaluations or as replacement wells. This program, as well as well maintenance procedures, shall be described in the Site Management Plan. Well maintenance procedures, to be followed by Respondent, shall include:

- Periodic inspection, noting any damage or problem associated with the well,
- Replacement and/or maintenance of casing(s) "stick up," as determined by EPA, in its sole discretion;
- Replacement and/or maintenance of well cap and lock, as determined by EPA, in its sole discretion; and
- Replacement and/or maintenance of surface seals around each well, as determined by EPA, in its sole discretion.
- Maintenance of each well to restore original performance adversely affected by chemical incrustation or biofouling of the well screen and sand pack, physical plugging of screen and sand pack, corrosion, sediment within the well; or other factors.

4.3.9 Compliance Status Reports

Respondent shall prepare annual reports of the quarterly compliance monitoring results that shall be appended to the O&M status reports described in this SOW. All data compliance monitoring data will be submitted on a quarterly schedule to EPA. The reports shall present sampling results from the previous period and shall include the following:

- Summary of sampling dates and locations
- Graphs or tabular presentations of the data
- Summary of monitoring results compared to the Performance Standards
- Summary of any validation results
- Discussion and presentation of results for remedial components performance monitoring

- Recommendations for continued or modified monitoring
- Appended data for all chemical and physical analyses, including QA/QC data, and water level measurements

The Respondent shall orally notify EPA and UDEQ within 24 hours and follow up in writing within 72 hours of any discovery of any of the following events:

- Detection of chemicals or chemical concentrations or other factors that may prevent the NTCRA from meeting the Performance Standard
- Failure of the NTCRA to meet Performance Standards
- Indications that the NTCRA is not performing as designed and, therefore, requires corrective measures
- Detection of chemicals or chemical concentrations in excess of the Performance Standards

Within fourteen (14) days of such discovery, Respondent shall submit to EPA and UDEQ a Corrective Measures Work Plan which shall detail specific measures proposed to be taken by Respondents to correct any problems, together with a schedule for implementation of such proposed corrective measures.

Section 5 Completion

5.1 Certification of Completion of Non-Time Critical Removal Action

5.1.1 Pre-Certification Inspection

Within 30 days after the Respondent concludes that the NTCRA has been fully performed and that all Performance Standards have been attained, the Respondent shall schedule and conduct a pre-certification inspection. Pre-certification inspection participants will include EPA, EPA's contractor(s), and the State.

The Respondent shall notify EPA and UDEQ in writing at least two (2) weeks in advance of when they wish to conduct the inspection. Notification shall be in the form of a letter and shall not be part of status reporting.

5.1.2 Removal Action Close-Out Report

Respondent shall submit to EPA and UDEQ an NTCRA Close-Out Report. The Report shall include a construction chronology, a list of construction modifications, pre-certification and certification inspection corrections, and documentation (e.g., test results) substantiating that the Performance Standards have been met. The Report shall also provide a narrative summary of the construction activities that have been completed.

The Report shall also include a description of the process startup activities, problems and idiosyncrasies encountered, and the methods and measures the Respondent took to solve them. The Report shall describe any process changes required for the Respondent to achieve reliable and consistent operation of the NTCRA.

In addition, the Report shall include a description of the removal of any Waste Materials, their origin, disposition, and location of placement of any fill. Furthermore, the Report shall include record drawings showing any facilities constructed. The record drawings shall be revisions of the approved construction drawings. Additional plans and/or details shall be added, as deemed necessary by EPA, to clearly depict the constructed project. The Respondent shall submit three (3) draft sets of record drawings to EPA and UDEQ each. After addressing any comments, the Respondent shall submit three (3) sets of full-scale record drawings to EPA, one unbound copy to EPA, and two (2) sets of full-scale record drawings to UDEQ.

Respondent shall also append summaries of all QA/QC testing to the Report.

5.2 Certification of Completion of Work

5.2.1 Pre-Certification Inspection

Within 30 days after Respondent concludes that all phases of the Work (including O&M) have been fully performed, Respondent shall schedule and conduct a pre-certification inspection. Pre-certification inspection participants will include EPA, EPA's contractor(s), and the State.

The Respondent shall notify EPA and UDEQ in writing at least two (2) weeks in advance of when they wish to conduct the inspection. Notification shall be in the form of a letter and shall not be part of status reporting.

5.2.2 Work Close-Out Report

Respondent shall submit to EPA and UDEQ a Work Close-Out Report. The Report shall include adequate documentation to demonstrate that (1) all aspects of the Work (including O&M) have been fully performed by the Respondent and approved by EPA, and (2) discontinuation of the Work will not cause Performance Standards to be exceeded and will not endanger human health or the environment.

APPENDIX B

LIST OF PALLAS YARD DOCUMENTS SUBMITTED TO EPA

Radiological and Engineering Assessment (MK-Ferguson/DOE 1987)

Vicinity Property Completion Report (MK-Ferguson/DOE 1987)

Level II Site Investigation 1100 South to Point of the Mountain (EE&S 1993)

Pallas Yard Phase I Environmental Site Assessment (IHI, 10/22/96)

Pallas Yard Phase II Site Investigation Report (IHI, 12/9/96)

Pallas Yard Final Investigation Report (IHI, 8/22/97)

Pallas Yard Volume 1 Workplans and Reduced Data (IHI, 9/9/97)

SAP, Phase II Site Investigation

SAP Final Investigation

QAPj Final Investigation

SAP, Groundwater Investigation

QAPj, Groundwater Investigation

Table 1 - Soil Analytical Results, Total RCRA Metals

Table 2 - Soil Analytical Results For Lead, Cadmium, and Arsenic

Duplicate Sample QA Summary

Piezometer Groundwater Elevation Survey

Piezometer and Monitoring Well Location Map

Cross-Section of Subsurface Soils

Pallas Yard Volume 2 Laboratory Reports (IHI, 9/9/97)

(For Phase II Site Investigation Report and Final Investigation Report)

Area Plat Maps and Ownership List (IHI)

Site Aerial Photograph from 1996 (IHI)

Radiological Sampling Plan (AGC)

Surface Soil Sample Grain Size Analysis (IHI)

Light Rail Workers Safety Procedures (UTA)

Draft Sections For The EE/CA (IHI 1997)

Land Use Report (IHI)
Wetlands Report (IHI)
Wildlife Report (IHI)
Pallas Yard Historical Clearance (IHI)
Groundwater Investigation Report (IHI)
Pallas Yard Water Well Survey (IHI) *Local Well Use Report*
PID Screening Report (IHI) *Assessment of Surface Staining*
Pallas Yard Surface Water Drainage (IHI)
Risk Assessment Chapters 1-4 (Kleinfelder)

SLCSR Diesel Release Investigation and Remediation Plan (IHI, 10/16/97)

Additional Groundwater Analysis Report (IHI, 11/4/97)

Health Risk Assessment (Kleinfelder, 11/11/97)

Draft EE/CA (IHI, 11/17/97)

**EE/CA Addendum (IHI, 11/17/97)
(Provided Under Separate Cover)**

Land Use Report (IHI)
Pallas Yard Historical Clearance (IHI)
Pallas Yard Water Well Survey (IHI)
Cahoon Maxfield Irrigation Ditch Sampling Report
Pallas Yard Surface Water Drainage Investigation Report(IHI)
Wetlands Report (IHI)
Wildlife Report (IHI)
Groundwater Investigation Report (IHI)
Additional Groundwater Analysis Report (IHI)
Radiological Sampling Report (AGC)
PID Screening Report (IHI)
Electron Microprobe Analysis (PTI)
Bioavailability Test (PTI)
Fate and Transport Report (AGC)
Stabilization Bench Test (Americon)

Final EE/CA (IHI, 12/17/97)

SLCSR Diesel Release Investigation and Remediation Report (IHI, 2/2/98)

Draft Quality Review For EE/CA (IHI, 12/17/97)

EPA Letter, East Bench Fill Proximity to Groundwater (IHI, 1/28/98)

Final Data Quality Review for EE/CA (IHL, 2/3/98)

Berm Material Sample Analysis Report (IHL, 4/23/98)

Draft Removal Design Workplan (IHL, 2/27/98)

Letter Summary of Conference Call (IHL, 3/26/98)

Draft Removal Action Workplan (IHL, 3/30/98)

Final Removal Action Workplan (IHL, 5/4/98)

Pallas Yard Safety, Health, and Emergency Response Plan (Dames & Moore, 5/98)

Exhibit 2

Schedule of Deliverables

TASKS	SECTION	DATE DUE	COMMENTS
Status Meetings	4.1.1.1	Prior to next status meeting	
Progress Reports	4.1.2	To be determined	A minimum of three (3) written reports during design and implementation of the NTCRA
Weekly Construction Reports	4.1.3	Due every other Tuesday during implementation of NTCRA	
Sampling Work Plans	4.2.1	To be determined	Data Quality Report was developed after the fact for all data collected prior to the development of the AOC
Health and Safety Plan	4.2.2	Within ten (10) days after the signing of AOC	Health and Safety Plan was submitted on 5/98
Document Inventory	4.3.2	Thirty (30) days following certification by EPA of the completion of the NTCRA	
Health and Safety Plan	4.3.3	Prior to implementing NTCRA	Health and Safety Plan was submitted on 5/98
Removal Design Work Plan	4.3.4.1	Within thirty (30) days after EPA's issuance of an authorization to proceed	Draft Removal Design Work Plan was submitted on February 27, 1998
Pre-final (90 Percent) Design Submission	4.3.5.1	To be determined in Removal Design Work Plan	
Final Design Submission	4.3.5.1	To be determined in Removal Design Work Plan	
Construction Quality Assurance/Quality Control (QA/QC) Plan	4.3.6.1	Prior to implementing NTCRA	
Contingency Plan	4.3.6.2	Concurrent with Removal Action Work Plan	The Contingency Plan shall be part of the Removal Action Work Plan
Waste Management Plan	4.3.7	To be determined	

Removal Action Work Plan	4.3.8.1	Within three (3) days after approval by EPA of the Final Design Submission	Draft Removal Action Work Plan was submitted on March 30, 1998
Site Management Plan	4.3.8.1.1	Concurrent with Removal Action Work Plan	The Site Management Plan shall be part of the Removal Action Work Plan
Preconstruction Conference	4.3.8.3	Five (5) days before the start of construction activities	The Preconstruction Conference was held 3/31/98
Operation and Maintenance (O&M) Plan	4.3.8.6	To be determined	
Operation and Maintenance (O&M) Manual(s)	4.3.8.7	To be determined	
Site Monitoring Plan	4.3.8.8	Within thirty (30) days of the Final Design Submission	
Well Abandonment Plan	4.3.8.9	Concurrent with Site Monitoring Plan	The Well Abandonment Plan shall be part of the Site Monitoring Plan
Compliance Status Reports	4.3.9	Annually	
Corrective Measures Work Plan	4.3.9	Fourteen (14) days after discovery of remedy failure	
Pre-Certification Inspection	5.1.1	Within thirty (30) days of NTCRA completion	
Removal Action Close-Out Report	5.1.2	To be determined	
Pre-Certification Inspection of all phases of Work	5.2.1	Within thirty (30) days of completion of O&M	
Work Close-Out Report	5.2.2	To be determined	