UNILATERAL ADMINISTRATIVE ORDER FOR REMEDIAL DESIGN AND REMEDIAL ACTION FOR THE SOIL REMEDY

VALLEY WOOD PRESERVING SUPERFUND SITE TURLOCK, STANISLAUS COUNTY, CALIFORNIA

August 2, 2004

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Attachment 1	September 1991 Valley Wood Preserving Site Record of Decision
Attachment 2	September 2003 Amendment #1 to the Record of Decision
Attachment 3	July 2004 Soil Remediation Work Plan

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Region IX

In The Matter Of:)	
)	
Valley Wood Preserving Superfund Site)	
)	
Valley Wood Preserving, Inc.)	
)	
)	U.S. EPA
Respondent)	Docket No. 2004-17
)	
Proceeding Under Section 106(a) of the)	
Comprehensive Environmental Response,)	
Compensation, and Liability Act of 1980,)	
as amended, (42 U.S.C. § 9606(a)).)	
)	

ADMINISTRATIVE ORDER FOR REMEDIAL DESIGN AND REMEDIAL ACTION FOR THE SOIL REMEDY

I. INTRODUCTION AND JURISDICTION

1. This Order directs Respondent to perform the soil remedy, as described in the Record of Decision dated September 27, 1991 and the Amendment #1 to the Record of Decision dated September 29, 2003 for the Valley Wood Preserving Superfund Site, and to implement it consistent with the remedial design already approved by EPA on July 29, 2004 in the Soil Remediation Work Plan. This Order is issued to Respondent by the United States Environmental Protection Agency ("EPA") under the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9606(a). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580 (52 Fed. Reg. 2926, January 29, 1987), and was further delegated to EPA Regional Administrators on September 13, 1987 by EPA Delegation No. 14-14-B. This authority was further delegated through the Director of the Superfund Division, EPA Region 9, to the Superfund Branch Chiefs by Regional Delegation Number R9-1290.14a, dated November 16, 2001.

II. FINDINGS OF FACT

2. The Valley Wood Preserving Superfund Site is located at 2237 South Golden State Boulevard in an unincorporated area of Stanislaus County, California (the "facility"). The facility is an inactive wood preserving facility, and lies roughly 1.5 miles southeast of the City of Turlock's boundary within Section 25 of Township 5 South, Range 10 East, relative of the Mount Diable base and meridian. The facility occupies an area of approximately 14.4 acres and is essentially level. Parts of the facility have been graded to control surface water runoff. Asphalt has been paved over the former wood treating and storage area. The remainder of the facility is unpaved. The entire perimeter of the facility is secured with a 6-foot-high chain-link fence. The southeast corner of the property holds two corrugated metal buildings, which were formerly occupied by an equipment rental company. Additionally, the property still contains an equipment shed, one large above-ground tank, a pole barn, and an office structure. For additional details about the facility conditions please refer to the 1991 Record of Decision ("ROD"), the 2003 Amendment #1 to the ROD ("ROD Amendment"), and the June 1991 Remedial Investigation and Feasibility Study Report, as supplemented by memorandum dated July 8, 1991.

3. As established by the February 5, 1996 order by the United States District Court for the Eastern District of California, Respondent Valley Wood Preserving, Inc. is now, and has been from about September 2, 1980 when the grant deed dated August 2, 1980 for the approximately 14.4-acre parcel that comprises the Site was filed with the Stanislaus County Recorder in Leger 3354, Page 781, the owner of the facility and, from about 1973 until approximately 1983, was an operator of the facility. During these times hazardous substances, including some or all of those described in this Section, were disposed of at the Site.

4. Valley Wood Preserving, Inc. ("VWP"), as identified in paragraph 3, will be referred to as "Respondent."

5. On March 31, 1989 (54 Fed. Reg. 13296), pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, EPA placed the Valley Wood Preserving, Inc. Superfund Site on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B.

6. From about May 1990 to about June 1991, VWP under EPA's oversight undertook a Remedial Investigation and Feasibility Study ("RI/FS") for the Site, pursuant to CERCLA and the National Contingency Plan, 40 C.F.R. Part 300.

7. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, EPA published notice of the completion of the FS and of the proposed plan for remedial action in June 1991, and provided opportunity for public comment on the proposed remedial action. EPA signed the Record of Decision on September 27, 1991.

8. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, EPA published an Explanation of Significant Differences ("ESD") in December 1994 to document significant changes it made to the final remedial action plan as originally provided in the 1991 Record of Decision. These significant

changes impacted the groundwater remedy by adding an in-situ groundwater treatment component to the remedy.

9. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, EPA published the proposed plan for the amendment to the remedial action in May 2000, and provided opportunity for public comment on the proposed amendment to the remedial action. The proposed amendment impacted the soil remedy by requiring excavation and off-site disposal of contaminated soil, backfilling of excavated areas with clean soil, and implementation of institutional controls to bar residential use of the Site. EPA signed the ROD Amendment on September 29, 2003.

10. The decision by EPA on the remedial action to be implemented at the Valley Wood Preserving Site is embodied in a final Record of Decision executed on September 27, 1991, as modified by the December 9, 1994 Explanation of Significant Differences ("ESD") and the September 29, 2003 ROD Amendment, on which the State has given its concurrence. The ROD and ROD Amendment are attached to this Order as Attachments 1 and 2, respectively, and are incorporated by reference. The ROD and ROD Amendment are supported by an administrative record that contains the documents and information upon which EPA based the selection of the response action.

11. Arsenic, copper, hexavalent chromium, and trivalent chromium are contaminants frequently detected in the soil at the Site. EPA's Risk Assessment determined that health risks from trivalent chromium and copper at the Site are not significant; therefore, arsenic and hexavalent chromium are the primary contaminants of concern in the soil.

12. The June 1991 RI/FS concluded that: 1) the contaminants of concern in both soil and groundwater were hexavalent chromium and arsenic; 2) the groundwater plume was mobile and migrating towards domestic wells; 3) additional investigation of the vertical extent of the groundwater plume was required; and 4) remedial technologies were available for cleanup. Further study has concluded that there is contaminated soil at the Site that should be remediated. It is likely that this contaminated soil has been contributing and continues to contribute to groundwater contamination. The primary pathway for release from the contaminated soil to the groundwater is via leaching due to groundwater movement.

13. The initial contamination release stems from wood treatment activities at the Site. Over time, the contaminants have seeped into the soil. Arsenic is a heavy metal and has primarily remained close to the property border. Hexavalent chromium is much more mobile, especially in groundwater. Current groundwater flow is in a southwestern direction at the Site. The groundwater current is slowly flushing contamination from the soil into the groundwater. This soil flushing threatens groundwater wells in the area. Common routes of exposure in highly contaminated groundwater systems include ingestion, inhalation, and both eye and dermal contact. The primary potential pathway of concern at the Site is ingestion of shallow groundwater.

For the soil fraction itself, routes of exposure would also include eye and dermal contact, inhalation, and ingestion. The primary routes of concern are dust inhalation and eye and dermal contact, expected from construction and other related activities at the Site.

14. Via groundwater exposure, the primary populations at risk at the Site are the neighboring landowners and tenants. Via soil exposure, the primary populations at risk at the Site are expected to be current and future workers exposed during construction activities. This soil remedy is expected to drastically reduce the risk to future workers during construction activities.

Currently, there is no productive land use. The most likely future use of the property is for truck parking. However, paid property storage has also been considered as a possible reuse. Very high levels of arsenic have been linked to certain types of cancers. Those levels are not expected at the Site. Prolonged arsenic inhalation can cause irritation and inflammation of the mucous membranes, as well as pulmonary edema. Continued arsenic ingestion can cause vomiting, cramps, convulsions, liver and kidney damage, and even death from circulatory failure. Symptoms of extended eye and dermal contact with arsenic are redness, itching, and inflammation of the eyes and/or skin.

15. In 1979, the Water Quality Control Board for the Central Valley Region ("CVRWQCB") identified the toxic chemicals chromium, copper, and arsenic at the Site, within storage ponds, holding tanks, and in soils (both on-site and off-site). Those same contaminants were also detected in the shallow, unconfined aquifer at the Site. In November 1979, the CVRWQCB issued a cleanup and abatement order to VWP, and in 1980, the CVRWQCB obtained a preliminary injunction ordering VWP to perform groundwater pump-and-treat actions at the Site. VWP commenced soil and groundwater sampling in early 1980; however, remedial actions ceased in 1983 due to alleged financial difficulties.

In March 1987, the California Department of Health Services Division of Toxic Substances Control (now known as the California Department of Toxic Substances Control or "DTSC") issued a remedial action order ("RAO") to VWP. This order required VWP to conduct a remedial investigation and feasibility study and to develop a Remedial Action Plan ("RAP").

In March 1989, EPA added the VWP Site to the National Priorities List ("NPL"), and soon thereafter became the lead agency for the remedial cleanup. In December 1989, VWP and EPA entered into an administrative order to perform emergency removal actions at the Site. The order required aquifer testing, an interim pump-and-treat system, and the design of a plan for alternate water supplies for affected neighboring residents. In January 1990, VWP commenced the installation of three deep groundwater wells to serve as domestic water wells. In May 1990, VWP and EPA entered into a second administrative consent order, requiring VWP to conduct an RI/FS. This new order superseded the previous 1987 RAO. A baseline risk assessment (as part of this RI/FS) indicated that exposure to groundwater contaminated by chemicals from VWP could result in significant health risks. No significant ecological risks were detected. In June 1990, a pump-and-treat system began operation in order to control the migration of the contaminant plume.

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In June 1991, the RI/FS was completed and on September 27, 1991, EPA signed the Record of Decision. In December 1994, pursuant to an ESD, EPA modified the groundwater remedy by developing a Groundwater Pilot Study ("GWPS"). On March 29, 1995, EPA entered into an Administrative Order on Consent with Valley Wood Preserving and Harold Logsdon to conduct the Remedial Design and implementation of the GWPS.

On March 26, 1997, the United States entered into a partial consent decree for past and future costs incurred by the United States at or in connection with the Site, subject to certain reservations, with defendants Fontana Wood Preserving, Inc. and Michael Logsdon. On August 26, 1998, the United States entered into a second partial consent decree for past costs incurred by the United States at or in connection with the Site through September 30, 1997 with defendants Harold Logsdon, Joyce Logsdon, and Valley Wood Preserving, Inc.

16. The remedy selected in the 1991 ROD, as modified by the December 9, 1994 ESD, to address groundwater contamination included extraction of the contaminated groundwater, electrochemical treatment of the extracted groundwater to remove hexavalent chromium, followed by use of an activated alumina adsorption column to remove any residual dissolved arsenic, in conjunction with the existing pump-and-treat system. In 1994, EPA modified the groundwater remedy by implementing a groundwater pilot study that provided for an in-situ groundwater treatment component consisting of the reinjection of the treated groundwater into the aquifer and saturated soils. This Order only addresses the Soil Remedy at the Site. For further information about the groundwater remedy, please refer to EPA's December 9, 1994 ESD.

The remedy selected in the 1991 ROD, as modified by the September 2003 ROD Amendment, to address the contaminated soil calls for excavation and off-site disposal of contaminated soil, backfill of excavated areas with clean soil, and institutional controls to restrict residential use of the Site.

17. The removal of the contaminated soil is expected to drastically reduce the exposure threat to humans from future construction at the Site. In addition, the removal will subtract the last known source of groundwater contamination from the Site. Backfilling with clean soil is expected to provide further protection from possible exposure to soil contamination.

III. CONCLUSIONS OF LAW AND DETERMINATIONS

18. The Valley Wood Preserving Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

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

20. Respondent is a "liable party" as defined in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is subject to this Order under Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

21. The substances listed in paragraph 11 are found at the Site and are "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

22. These hazardous substances have been and are being released from the Site into the soil and groundwater.

23. The past and present disposal and migration of hazardous substances from the Site are a "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

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

25. The release and/or the threat of release of one or more hazardous substances from the facility may present an imminent and substantial endangerment to the public health or welfare or the environment.

26. The contamination and endangerment at this Site constitute an indivisible injury. The actions required by this Order are necessary to protect the public health, welfare, and the environment.

IV. NOTICE TO THE STATE

27. On July 29, 2004, prior to issuing this Order, EPA notified the State of California Department of Toxic Substances Control ("DTSC"), that EPA would be issuing this Order.

V. ORDER

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

VI. DEFINITIONS

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

a. "Amendment #1 to the Record of Decision" or "ROD Amendment" shall mean the EPA ROD Amendment relating to the Site signed on September 29, 2003 by the Branch Chief of the Site Cleanup Branch of the Superfund Division, EPA Region 9, and all attachments thereto.

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

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

d. "DTSC" shall mean the State of California's Department of Toxic Substances Control.

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

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

g. "Paragraph" shall mean a portion of this Order identified by an arabic numeral.

h. "Performance Standards" shall mean those cleanup standards, standards of control, and other substantive requirements, criteria or limitations, identified in the Record of Decision, ROD Amendment, and Soil Remediation Work Plan that the Remedial Action and Work required by this Order must attain and maintain.

i. "Record of Decision" or "ROD" shall mean the EPA Record of Decision relating to the Site signed on September 27, 1991 by the Regional Administrator, EPA Region 9, and all attachments thereto.

j. "Remedial Action-Soil" or "RA-Soil" shall mean those activities to be undertaken by Respondent to implement the final plans and specifications for the soil remedy pursuant to the Soil Remediation Work Plan, which EPA approved on July 29, 2004, including any additional activities required under Sections X, XI, XII, XIII, and XIV of this Order.

k. "Remedial Design-Soil" or "RD-Soil" shall mean those activities that Respondent has undertaken to develop the final plans and specifications for the Remedial Action-Soil, which Respondent has already submitted to EPA and which EPA has approved and incorporated in the Soil Remediation Work Plan.

1. "Response Costs" shall mean all costs, including direct costs, indirect costs, and accrued interest incurred by the United States to perform or support response actions at the Site. Response costs include but are not limited to the costs of overseeing the Work, such as the costs of reviewing or developing plans, reports and other items pursuant to this Order and costs associated with verifying the Work.

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

n. "Site" shall mean the Valley Wood Preserving Superfund Site, encompassing approximately 14.4 acres, located at 2237 South Golden State Boulevard in Turlock, Stanislaus County, California, as described in the Record of Decision and the ROD Amendment.

o. "Soil Remediation Work Plan" shall mean the work plan that Respondent submitted and EPA approved on July 29, 2004, that includes the completed Remedial Design-Soil and plans for the implementation of the Remedial Action-Soil at the Site, as set forth in Attachment 3 to this Order. The Soil Remediation Work Plan is incorporated into this Order and is an enforceable part of this Order.

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

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

r. "Work" shall mean all activities Respondent is required to perform under this Order, as detailed in the Soil Remediation Work Plan, including Remedial Action-Soil and any activities required to be undertaken pursuant to Sections VII through XXIII, and XXVI of this Order.

VII. NOTICE OF INTENT TO COMPLY

30. Respondent shall provide, not later than ten (10) days after the effective date of this Order, written notice to EPA's Remedial Project Manager ("RPM") stating whether it will comply with the terms of this Order. If Respondent does not unequivocally commit to perform the RA-Soil as provided by this Order and the Soil Remediation Work Plan attached hereto, it shall be deemed to have violated this Order and to have failed or refused to comply with this Order. Respondent's written notice shall describe, using facts that exist on or prior to the effective date of this Order, any "sufficient cause" defenses asserted by Respondent under Sections 106(b) and 107(c)(3) of CERCLA. The absence of a response by EPA to the notice required by this paragraph shall not be deemed to be acceptance of Respondent's assertions.

VIII. PARTIES BOUND

31. This Order shall apply to and be binding upon Respondent and its directors, officers, employees, agents, successors, and assigns. Respondent is jointly and severally responsible for carrying out all activities required by this Order. No change in the ownership, corporate status, or other control of any Respondent shall alter any of the Respondent's responsibilities under this Order.

32. At all times prior to EPA's issuance of written notification to Respondent that work has been completed, as provided in paragraph 48, Respondent shall provide a copy of this Order to any prospective owners or successors before a controlling interest in Respondent's assets, property rights, or stock are transferred to the prospective owner or successor. Respondent shall provide a copy of

this Order to each contractor, sub-contractor, laboratory, or consultant retained to perform any Work under this Order, within five (5) days after the effective date of this Order or on the date such services are retained, whichever date occurs later. Respondent shall also provide a copy of this Order to each person representing any Respondent with respect to the Site or the Work and shall condition all contracts and subcontracts entered into hereunder upon performance of the Work in conformity with the terms of this Order. With regard to the activities undertaken pursuant to this Order, each contractor and subcontractor shall be deemed to be related by contract to the Respondent within the meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3). Notwithstanding the terms of any contract, Respondent is responsible for compliance with this Order and for ensuring that its contractors, subcontractors and agents comply with this Order, and perform any Work in accordance with this Order.

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

IX. WORK TO BE PERFORMED

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

35. All aspects of the Work to be performed by Respondent pursuant to this Order shall be under the direction and supervision of Bob Schmidt, Valley Wood Preserving, P.O. Box 1805, Turlock, California, 95381, who has already been approved by EPA as Respondent's Site project manager. If at any time Respondent proposes to use a different project manager, Respondent shall notify EPA and shall obtain approval from EPA before the new project manager performs any Work under this Order.

36. EPA will review Respondent's selection of a different project manager according to the terms of this paragraph and Section XIV of this Order. If EPA disapproves of the selection of a different project manager, Respondent shall submit to EPA within thirty (30) days after receipt of EPA's disapproval of the project manager previously selected, a list of project managers, including primary support entities and staff, that would be acceptable to Respondent. EPA will thereafter provide written notice to Respondent of the names of the project managers that are acceptable to EPA. Respondent may then select any approved project manager from that list and shall notify EPA of the name of the project manager selected within twenty-one (21) days of EPA's designation of approved project managers.

A. Remedial Design - Soil

37. Respondent has already submitted a work plan for the Remedial Design-Soil ("RD-Soil") to EPA as part of the Soil Remediation Work Plan, set forth as Attachment 3, which EPA has approved. The RD Work Plan, as incorporated in the Soil Remediation Work Plan, provides a plan for attaining and maintaining all requirements, including Performance Standards, identified in the ROD, and comports with EPA's "Superfund Remedial Design/Remedial Action Handbook," U.S. EPA, Office of Emergency and Remedial Response, June 15, 1995, EPA 540/R-95/059. As a condition of EPA's approval of the Soil Remediation Work Plan, Respondent already has implemented and performed the necessary components of the Remedial Design-Soil to EPA's approval. Accordingly, the Final Design is approved by EPA and incorporated into this Order as part of the Soil Remediation Work Plan and shall be an enforceable part of this Order.

38. Respondent already has prepared and submitted a Site Health and Safety Plan for field design activities that EPA has approved and which conforms to the applicable Occupational Safety and Health Administration and EPA requirements, including but not limited to the requirements in 29 C.F.R. § 1910.120.

B. Remedial Action-Soil

39. Respondent has already submitted a Soil Remediation Work Plan that EPA approved on July 29, 2004. The Soil Remediation Work Plan was developed in accordance with the ROD, the ROD Amendment, and is consistent with the Final Design as approved by EPA.

40. Respondent has already prepared and submitted a Site Health and Safety Plan for field activities that EPA has approved and which conforms to applicable Occupational Safety and Health Administration and EPA requirements, including but not limited to the requirements in 29 C.F.R. § 1910.120.

41. The Soil Remedation Work Plan, which EPA has already approved and which is set forth at Attachment 3, is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order.

42. Within thirty (30) days after the execution of this Order, Respondent shall submit to EPA a proposed Schedule for implementing the Soil Remediation Work Plan. Unless otherwise directed by EPA, Respondent shall not commence RA-Soil at the Site prior to approval of the RA-Soil Schedule.

43. Within thirty (30) days after the execution of this Order, Respondent shall notify EPA in writing of the name, title, and qualifications of any construction contractors that may be used in carrying out work under this Order. EPA shall thereafter provide written notice of the name(s) of the contractor(s) it disapproves, if any. Respondent may select any contractor not disapproved and shall notify EPA of the name of the contractor selected within five (5) days of selection. If at any time Respondent proposes to change the construction contractor, Respondent shall notify EPA and

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

44. The Work performed by Respondent pursuant to this Order shall, at a minimum, achieve the Performance Standards specified in the Record of Decision, the ROD Amendment, and the Soil Remedation Work Plan. In particular, Respondent is responsible for implementing the Soil Remedy, as recently amended, which requires: a) excavation of an estimated 1600 cubic yards of soil contaminated with arsenic and/or hexavalent chromium at levels greater than 25 milligrams per kilogram (mg/kg) and 4 mg/kg, respectively; b) offsite disposal of the excavated soil at an approved landfill; c) backfill of the excavated areas with clean soil; and d) implementation of a restrictive covenant that prevents residential use of the property and is otherwise consistent with Site conditions as well as full cooperation in the effort to rezone the Site to a "planned commercial" (or similar) designation to prevent residential use of the Site property.

45. Notwithstanding any action by EPA, Respondent remains fully responsible for achievement of the Performance Standards in the Record of Decision, ROD Amendment, and Soil Remediation Work Plan. Nothing in this Order, or in EPA's approval of the Soil Remediation Work Plan, or approval of any other submission, shall be deemed to constitute a warranty or representation of any kind by EPA that full performance of the Remedial Design-Soil or Remedial Action-Soil will achieve the Performance Standards set forth in the ROD, ROD Amendment, and the Soil Remediation Work Plan. Respondent's compliance with such approved documents does not foreclose EPA from seeking additional work to achieve the applicable Performance Standards.

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

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

b. The identity of the receiving facility and state will be determined by Respondent following the award of the contract for Remedial Action-Soil construction. Respondent shall provide all relevant information, including information under the categories noted in Paragraph (a) above, on the off-site shipments as soon as practicable after the award of the contract and before the hazardous substances are actually shipped.

47. Within thirty (30) days after Respondent concludes that the Remedial Action-Soil has been fully performed, Respondent shall so notify EPA and shall schedule and conduct a pre-certification inspection to be attended by Respondent and EPA. The pre-certification inspection shall be followed by a written report submitted within thirty (30) days of the inspection by a registered professional engineer and Respondent's Project Coordinator certifying that the Remedial Action-Soil has been completed in full satisfaction of the requirements of this Order. If, after completion of the precertification inspection and receipt and review of the written report, EPA determines that the Remedial Action-Soil or any portion thereof has not been completed in accordance with this Order, EPA shall notify Respondent in writing of the activities that must be undertaken to complete the Remedial Action-Soil and shall set forth in the notice a schedule for performance of such activities. Respondent shall perform all activities described in the notice in accordance with the specifications and schedules established therein. If EPA concludes, following the initial or any subsequent certification of completion by Respondent that the Remedial Action-Soil has been fully performed in accordance with this Order, EPA shall notify Respondent in writing that the Remedial Action-Soil has been fully performed. EPA's notification shall be based on present knowledge and Respondent's certification to EPA and shall not limit EPA's right to perform periodic reviews pursuant to Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or require any action that in the judgment of EPA is appropriate at the Site, in accordance with 42 U.S.C. §§ 9604, 9606, or 9607.

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

X. FAILURE TO ATTAIN PERFORMANCE STANDARDS

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

50. Unless otherwise stated by EPA, within thirty (30) days of receipt of notice from EPA that additional response activities are necessary to meet any applicable Performance Standards, Respondent shall submit for approval by EPA a work plan for the additional response activities. The plan shall conform to the applicable requirements of Sections IX, XVI, and XVII of this Order.

Upon EPA's approval of the plan pursuant to Section XIV, Respondent shall implement the plan for additional response activities in accordance with the provisions and schedule contained therein.

XI. EPA PERIODIC REVIEW

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

XII. ADDITIONAL RESPONSE ACTIONS

52. EPA may determine that in addition to the Work identified in this Order and attachments to this Order, additional response activities relating to the Soil Remedy may be necessary to protect human health and the environment. If EPA determines that additional response activities related to the Soil Remedy are necessary to protect human health and the environment, EPA may require Respondent to submit a work plan for additional response activities. EPA may also require Respondent to modify any plan, design, or other deliverable required by this Order, including any approved modifications.

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

XIII. ENDANGERMENT AND EMERGENCY RESPONSE

54. In the event of any action or occurrence during the performance of the Work which causes or threatens to cause a release of a hazardous substance or which may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action to prevent, abate, or minimize the threat, and shall immediately notify EPA's RPM or, if the RPM is unavailable, the RPM's Section Chief. If neither of these persons is available, Respondent shall notify the EPA Emergency Response Section, Region 9 at (415) 947-4400. Respondent shall take such action in consultation with EPA's RPM and in accordance with all applicable provisions of this Order, including but not limited to the Health and Safety Plan and the Contingency Plan. In the event that Respondent fails to take appropriate response action as required by this Section, and EPA takes that action instead, Respondent shall reimburse EPA for all costs of the response action

not inconsistent with the NCP. Respondent shall pay the response costs in the manner described in Section XXIII of this Order, within thirty (30) days of Respondent's receipt of demand for payment and a reconciled EPA financial cost summary of the costs incurred.

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

XIV. EPA REVIEW OF SUBMISSIONS

56. After review of any deliverable, plan, report or other item which is required to be submitted for review and approval pursuant to this Order, EPA may: (a) approve the submission; (b) approve the submission with modifications; (c) disapprove the submission and direct Respondent to resubmit the document after incorporating EPA's comments; or (d) disapprove the submission and assume responsibility for performing all or any part of the response action. As used in this Order, the terms "approval by EPA," "EPA approval," or a similar term means the action described in (a) or (b) of this Paragraph.

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

58. Upon receipt of a notice of disapproval or a request for a modification, Respondent shall, within twenty-one (21) days or such longer time as specified by EPA in its notice of disapproval or request for modification, correct the deficiencies and resubmit the plan, report, or other item for approval. Notwithstanding the notice of disapproval, or approval with modifications, Respondent shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission.

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

XV. PROGRESS REPORTS

60. In addition to the other deliverables set forth in this Order, Respondent shall provide EPA with a progress report with respect to actions and activities undertaken pursuant to this Order. The progress report shall be submitted twenty-one (21) days after the initiation of excavation activities. At a minimum the progress report shall: (1) describe the actions which have been taken to comply with this Order during the relevant time period; (2) include all results of sampling and tests and all other data received by Respondent and not previously submitted to EPA; (3) describe all work planned for the next time frame with schedules relating such work to the overall project schedule RA-Soil completion; and (4) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any

actual or anticipated problems or delays. Prior to backfilling, Respondent shall provide to EPA all analytical results from confirmation sampling.

XVI. QUALITY ASSURANCE, SAMPLING AND DATA ANALYSIS

61. Respondent shall use the quality assurance, quality control, and chain of custody procedures described in the "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001) and "Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA 600/R-98/018, February 1998) and any amendments to these documents, while conducting all sample collection and analysis activities required herein by any plan. To provide quality assurance and maintain quality control, Respondent shall:

a. Use only laboratories which have a documented quality system that complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," (American National Standard January 5, 1995), and "EPA Requirements for Quality Management Plans (QA/R-2)," (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by EPA. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program ("NELAP") to meet the quality system requirements.

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- b. Ensure that the laboratory used by the Respondent for analyses, performs according to a method or methods deemed satisfactory to EPA and submits all protocols to be used for analyses to EPA at least fourteen (14) days before beginning analysis.
- c. Ensure that EPA personnel and EPA's authorized representatives are allowed access to the laboratory and personnel utilized by the Respondent for analyses.

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

XVII. COMPLIANCE WITH APPLICABLE LAWS

63. All activities by Respondent pursuant to this Order shall be performed in accordance with the requirements of all federal and state laws and regulations. EPA has determined that the activities contemplated by this Order are consistent with the NCP.

64. Except as provided in Section 121(e) of CERLCA and the NCP, no permit shall be required for any portion of the Work conducted entirely on-site. Where any portion of the Work requires a federal or state permit or approval, Respondent shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals.

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

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

XVIII. REMEDIAL PROJECT MANAGER

67. All communications, whether written or oral, from Respondent to EPA shall be directed to EPA's RPM or the RPM's Section Chief. Respondent shall submit to EPA three copies of all documents, including plans, reports, and other correspondence, which are developed pursuant to this Order, and shall send these documents by overnight mail or by certified mail, return receipt requested. Respondent shall also submit one copy of each deliverable to the project managers for DTSC and the CVRWQCB.

EPA's Remedial Project Manager is: Dana Barton U.S. Environmental Protection Agency, Region IX 75 Hawthorne Street (SFD-7-4) San Francisco, CA 94105 phone: (415) 972-3087 fax: (415) 947-3528 email: barton.dana@epa.gov

The RPM's Section Chief is: Frederick Schauffler Chief - Site Cleanup Section IV U.S. Environmental Protection Agency, Region IX 75 Hawthorne Street (SFD-7-4) San Francisco, CA 94105 phone: (415) 972-3174 fax: (415) 947-3526 email: schauffler.frederick@epa.gov

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

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

XIX. SITE ACCESS AND DATA/DOCUMENT AVAILABILITY

70. Respondent shall allow EPA and its authorized representatives and contractors to enter and freely move about all property at the Site and to inspect all documents required to be prepared or maintained by this Order, for the purposes of inspecting conditions, activities, the results of activities, records, operating logs, and contracts related to the Site or Respondent and its representatives or contractors pursuant to this Order; reviewing the progress of the Respondent in carrying out the terms of this Order; conducting tests as EPA or its authorized representatives or contractors deem necessary; using a camera, sound recording device or other documentary type equipment; and verifying the data submitted to EPA by Respondent. Respondent shall allow EPA and its authorized representatives to enter the Site, to inspect and copy all records, files, photographs, documents, sampling and monitoring data, and other writings related to work undertaken in carrying out this Order. Nothing herein shall be interpreted as limiting or affecting EPA's right of entry or inspection authority under federal law.

71. Respondent may assert a claim of business confidentiality covering part or all of the information submitted to EPA pursuant to the terms of this Order under 40 C.F.R. § 2.203, provided such claim is not inconsistent with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7) or other provisions of law. This claim shall be asserted in the manner described by 40 C.F.R. § 2.203(b) and substantiated by Respondent at the time the claim is made. Information determined to be confidential by EPA will be given the protection specified in 40 C.F.R. Part 2. If no such claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA or the state without further notice to the Respondent. Respondent shall not assert confidentiality claims with respect to any data related to Site conditions, sampling, or monitoring.

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

XX. RECORD PRESERVATION

73. Respondent shall provide to EPA upon request, copies of all documents and information within its possession and/or control or that of its contractors or agents relating to activities at the Site or to the implementation of this Order, including but not limited to sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. 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.

74. Until ten (10) years after EPA provides notice that all Work under this Order has been completed, Respondent shall preserve and retain all records and documents in its possession or control on and after the effective date of this Order that relate in any manner to the Site. At the conclusion of this document retention period, Respondent shall notify the United States at least

ninety (90) calendar days prior to the destruction of any such records or documents, and upon request by the United States, Respondent shall deliver any such records or documents to EPA.

75. Until ten (10) years after EPA provides notice that all Work under this Order has been completed, Respondent shall preserve, and shall instruct its contractors and agents to preserve or provide to respondent, all documents, records, and information of whatever kind, nature or description relating to the performance of the Work. Upon the conclusion of this document retention period, Respondent shall notify the United States at least ninety (90) days prior to the destruction of any such records, documents or information, and, upon request of the United States, Respondent shall deliver all such documents, records and information to EPA.

76. Within forty-five (45) days after the effective date of this Order, Respondent shall submit a written certification to EPA's RPM that it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information relating to its potential liability with regard to the Site since notification of potential liability by the United States or the State or the filing of suit against it regarding the Site. Respondent shall not dispose of any such documents without prior approval by EPA. Respondent shall, upon EPA's request and at no cost to EPA, deliver the documents or copies of the documents to EPA.

XXI. DELAY IN PERFORMANCE

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

78. Respondent shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to EPA's RPM or the RPM's Section Chief within forty-eight (48) hours after Respondent first knew or should have known that a delay might occur. Respondent shall adopt all reasonable measures to avoid or minimize any such delay. Within five (5) business days after notifying EPA by telephone, Respondent shall provide written notification fully describing the nature of the delay, any justification for delay, any reason why Respondent should not be held strictly accountable for failing to comply with any relevant requirements of this Order, the measures planned and taken to minimize the delay, and a schedule for implementing the measures that will be taken to mitigate the effect of the delay. Increased costs or expenses associated with implementation of the activities called for in this Order is not a justification for any delay in performance.

XXII. ASSURANCE OF ABILITY TO COMPLETE WORK

79. Respondent shall demonstrate its ability to complete the Work required by this Order and to pay all claims that arise from the performance of the Work by obtaining and presenting to EPA within thirty (30) days after issuance of this Order, one of the following: (1) a performance bond; (2) a letter of credit; (3) a guarantee by a third party; or (4) internal financial information to allow EPA to determine that Respondent has sufficient assets available to perform the Work. Respondent shall demonstrate financial assurance in an amount no less than the estimate of cost for the Remedial Action-Soil contained in the Record of Decision, ROD Amendment, and Soil Remediation Work Plan for the Site. If EPA determines at any time that such financial information is inadequate, Respondent shall, within thirty (30) days after receipt of EPA's notice of determination, obtain and present to EPA for approval one of the forms of financial assurance listed above.

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

XXIII. REIMBURSEMENT OF RESPONSE COSTS

81. Respondent shall reimburse EPA, upon written demand, for all response costs incurred by the United States in overseeing Respondent's implementation of the requirements of this Order or in performing any response action which Respondent fails to perform in compliance with this Order. EPA may submit to Respondent on a periodic basis an accounting of all response costs incurred by the United States with respect to this Order. EPA's reconciled cost summary shall serve as basis for payment demands.

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

83. Checks shall be made payable to the U.S. EPA Hazardous Substances Superfund and shall include the name of the Site, the Site identification number (#09K5) and the title of this Order. Checks should be mailed to:

U.S. EPA - Cincinnati Accounting Operations ATTN: Region 9 Receivables P.O. Box 371099M Pittsburgh, PA 15251 84. Respondent shall send copies of each transmittal letter and check or notice of an electronic payment to the EPA's RPM.

XXIV. UNITED STATES NOT LIABLE

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

XXV. ENFORCEMENT AND RESERVATIONS

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

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

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

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

90. Respondent shall be subject to civil penalties under Section 106(b) of CERCLA, 42 U.S.C. \S 9606(b), of not more than \$32,500 for each day in which Respondent willfully violates, or fails or refuses to comply with this Order without sufficient cause. In addition, failure to properly provide response action under this Order, or any portion hereof, without sufficient cause, may result in liability under Section 107(c)(3) of CERCLA, 42 U.S.C. \S 9607(c)(3), for punitive damages in an

amount at least equal to, and not more than three times the amount of any costs incurred by the Fund as a result of such failure to take proper action.

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

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 by the court's order.

XXVI. ADMINISTRATIVE RECORD

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

XXVII. EFFECTIVE DATE AND COMPUTATION OF TIME

94. This Order shall be effective upon signature by the Region 9 Superfund Branch Chief. All times for performance of ordered activities shall be calculated from this effective date.

XXVIII. OPPORTUNITY TO CONFER

95. Respondent may, within ten (10) days after the effective date of this Order, request a conference with EPA's RPM and Assistant Regional Counsel to discuss this Order. If requested, the conference shall occur at EPA's regional offices at a date and time to be determined by EPA. Nothing in this Paragraph shall alter Respondent's obligation under Paragraph 30 to provide timely written notice of its intent to comply with this Order.

96. The purpose and scope of the conference shall be limited to issues involving the implementation of the response actions required by this Order and the extent to which Respondent intends to comply with this Order. This conference is not an evidentiary hearing, and does not constitute a proceeding to challenge this Order. It does not give Respondent a right to seek review of this Order, or to seek resolution of potential liability, and no official stenographic record of the conference will be made. At any conference held pursuant to Respondent's request, Respondent may appear in person or by an attorney or other representative.

97. Requests for a conference must be by telephone followed by written confirmation mailed that day to EPA's Remedial Project Manager.

So Ordered, this $\frac{13}{13}$ day of $\frac{3}{100}$ and $\frac{3}{100}$

BY: Ellester ()(se mas

Elizabeth J. Adams Chief, Site Cleanup Branch Superfund Division, Region 9 U.S. Environmental Protection Agency

Soil Remedy UAO Valley Wood Preserving Superfund Site

ATTACHMENT 1

AMENDMENT # 1

TO THE

RECORD OF DECISION

FOR THE

VALLEY WOOD PRESERVING SUPERFUND SITE TURLOCK

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U.S. Environmental Protection Agency Region 9 San Francisco

September 2003

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Part 1: THE DECLARATION

A. Site Name and Location

Valley Wood Preserving Superfund Site Turlock, Stanislaus County, California

B. Statement of Basis and Purpose

This decision document presents the amended selected remedial actions of the U.S. Environmental Protection Agency (EPA) for the Valley Wood Preserving Superfund Site, located in Turlock, Stanislaus County, California (the Site or VWP Site). These actions have been chosen in accordance with Section 117 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, 42 U.S.C. § 9617, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR § 300.435(c)(2)(ii). This decision is based upon the Administrative Record for the Site.

The lead agency for the remedial effort at this Site is EPA; support agencies are the California Department of Toxic Substances Control (DTSC) and the California Regional Water Quality Control Board, Central Valley Region (CVRWQCB). The state agencies concur with the selected Amendment to the initial soil remedy contained in the Record of Decision (ROD) of the Site. The ground water remedy was modified in December 1994 by an Explanation of Significant Differences (ESD).

C. Assessment of Site

The response action selected in the ROD, as modified by this Amendment, is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances, pollutants, and/or contaminants from this Site which may present an imminent and substantial endangerment to public health or welfare.

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D. Description of Selected Remedy

This ROD Amendment modifies the previously selected remedy for treating the contaminated soil at the Valley Wood Preserving Superfund Site. These revisions affect both the cleanup standards and cleanup methodology selected in the 1991 ROD.

This ROD Amendment provides for: a) excavation and off-site disposal of contaminated soil, and backfill of excavated areas with clean soil; b) a new cleanup level for arsenic in soil of 25 milligrams per kilogram (mg/kg); c) elimination of the soluble leachate soil cleanup numbers for arsenic and hexavalent chromium that were based on the Designated Level Methodology (DLM); and d) implementation of institutional controls that prohibit residential use of the Site property and that also ensure that future use is compatible with Site conditions once the remedy has been implemented. Institutional controls may include zoning changes and/or restrictive covenants that run with the land.

Modified Soil Cleanup Remedy

The remedy selected in the ROD to remediate the contaminated soil was to excavate soil above cleanup levels, fix and stabilize the soil, backfill the fixated soil, and cover the affected areas with an asphalt cap. This remedy was the highest cost remedy of the four options considered in the selection process. The ROD established surface (0-4 feet below ground surface) and subsurface (4 feet below ground surface to the water table) soil cleanup levels based on the potential for those soils to leach contaminants to ground water. These soil cleanup levels were based upon residential site usage. Subsequently, EPA learned that the cleanup standards for arsenic were below background. Also, residential use is no longer planned for the Site, and EPA finds the ROD cleanup level for arsenic in surface soils to be overly conservative for an industrial site. EPA is now revising the cleanup level from 2 mg/kg for surface soils to 25 mg/kg for all soil above the water table. This revision is protective of human health from exposure to site soils through direct contact and protective of ground water quality. The cleanup standards were determined to be protective of human exposure and ground water; consequently the soluble leachate subsurface cleanup standards have been eliminated.

The remedy in the ROD provides for protective standards but specified that fixed soils would require an engineered cap to be placed on top of the soil. Such a cap would likely preclude residential usage at the Site. The revised cleanup standard is appropriate for a planned industrial land use, and that land use would also provide VWP with some economic resource recovery. The amended remedy is land use appropriate and will require less excavation of soil. EPA believes that this new remedy of excavation and off-site disposal offers a better opportunity for redevelopment of the property.

Institutional Controls

Selected institutional controls, through a combination of agreements, land-use covenants, and/or local ordinances, will ensure that the remaining contaminated areas do not pose a significant risk to public health. The primary institutional control shall be a prohibition of residential use of the Site. This will be accomplished through zoning changes and/or restrictive covenants that run with the land. VWP has already submitted an application to have the Site re-zoned as "planned industrial" which would both effectively prevent the construction of residences on the property, and require local zoning input on the future industrial usage. In addition, VWP has committed to recording a land use restriction to the deed of the property. This restriction would clearly limit future property use to non-residential, commercial activities.

E. Statutory Determinations

The selected remedy is protective of human health and the environment, complies with all federal and state requirements that are applicable or relevant and appropriate (ARARs), and is costeffective. This remedy utilizes solutions that are permanent, and satisfies Section 121 of CERCLA, 42 U.S.C. § 9621. This ROD Amendment shall become part of the Administrative Record, as required by 40 C.F.R. § 300.825(a)(2) of the NCP.

ROD Amendment #1 Valley Wood Preserving Superfund Site

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Because this remedy will result in hazardous substances remaining on-site above health-based levels (specifically, ground water), the Site becomes subject to the five-year review requirement. This five-year review is to provide assurance that the remedy remains protective of human health and the environment. The review will be conducted as long as hazardous substances are present above health-based cleanup levels. The first review is scheduled for five years after startup of the remedial action.

F. Authorizing Signature

Elizabeth Adams Chief, Site Cleanup Branch, Superfund Division Date

ROD Amendment #1 Valley Wood Preserving Superfund Site

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Part 2: DECISION SUMMARY

A. Site Name, Location, and Brief Description

The Valley Wood Preserving Superfund Site (the Site) is located at 2237 South Golden State Boulevard in an unincorporated area of Stanislaus County, California. The Site is an inactive wood preserving facility, and lies roughly 1.5 miles southeast of the City of Turlock's boundary. The Merced County line is about 0.5 miles southeast of the Site. The Site is located within Section 25 of Township 5 South, Range 10 East, relative to the Mount Diablo base and meridian.

The immediate boundaries of the Site are South Golden State Boulevard to the east; a poultry farm to the south; agricultural/residential lots to the west; and a vineyard to the north. The primary land use in the Site vicinity is for agricultural purposes. The agricultural parcels near the Site are about 10 to 20 acres each, with associated residences.

The Site occupies an area of approximately 14.4 acres, and is essentially level. Parts of the Site have been graded to control surface water runoff. Asphalt has been paved over the former wood treating and storage area. The remainder of the Site is unpaved. The entire perimeter of the Site is secured with a 6-foot-high chain-link fence.

Within the Site boundaries, a garage/workshop and a storage shed are located in the northeast corner of the property. Water for domestic usage is obtained from a northeast well, designated VWP-4. The southeast corner of the property holds several corrugated metal buildings, which were formerly occupied by an equipment rental company. Among those buildings are two service/storage-type buildings and a covered work structúre. In addition, the property still contains an equipment shed, two large above-ground tanks, a pole barn, an office structure, and a 660,000-gallon tank. The pole barn was used for dipping small wood pieces and may still contain some old dipping tanks. The 660,000-gallon tank was constructed after closure of the wood treating facility. The other wood preserving facilities and equipment have been dismantled and removed.

B. Site History of Contamination and Original Remedy

1. State Activities

Between 1973 and 1979, Valley Wood Preserving, Inc. (VWP) performed wood preserving activities at the Site. Solutions of 1 to 2 percent chromated-copper-arsenate (CCA) were mixed and stored in tanks on the Site. Lumber in loads of up to 20,000 pounds was placed into one of four pressure treatment cylinders, then treated with the solution. After completion of the treatment, the lumber would then be removed from the cylinder and allowed to drip-dry on paved and unpaved areas on the Site. Known contamination sources at the Site include such chemical drippings, other chemical spills, leaking tanks, and on-site disposal practices common to that time.

In 1979, the Regional Water Quality Control Board, Central Valley Region (CVRWQCB)

identified the toxic chemicals chromium, copper, and arsenic on Site, within storage ponds, holding tanks, and in soils (both on-site and off-site). Those same contaminants were also detected in the shallow, unconfined aquifer at the Site. In November 1979, the CVRWQCB issued a cleanup and abatement order to VWP. Then in 1980, the CVRWQCB obtained a preliminary injunction ordering VWP to perform ground water pump-and-treat actions at the Site. VWP commenced soil and ground water sampling in early 1980; however, remedial actions ceased in 1983 due to alleged financial difficulties.

In March 1987, the California Department of Health Services Division of Toxic Substances Control (now known as the California Department of Toxic Substances Control, or DTSC) issued a remedial action order (RAO) to VWP. This order required VWP to conduct a remedial investigation and feasibility study and to develop a Remedial Action Plan (RAP).

2. EPA Activities and the 1991 Record of Decision

In March 1989, the U.S. Environmental Protection Agency (EPA) added the VWP Site to the National Priorities List (NPL), and soon thereafter became the lead agency for the remedial cleanup. EPA remains the lead agency; the DTSC and CVRWQCB are support agencies, with DTSC acting as the lead state agency.

In December 1989, VWP and EPA entered into an administrative order to perform emergency removal actions at the Site. The order required aquifer testing, an interim pump-and-treat system, and the design of a plan for alternate water supplies for affected neighboring residents. In January 1990, VWP commenced the installation of three deep ground water wells to serve as domestic water wells. In May 1990, VWP and EPA entered into a second administrative consent order, requiring VWP to conduct a remedial investigation/feasibility study (RI/FS). This new order superseded the previous 1987 RAO. A baseline risk assessment (as part of this RI/FS) indicated that exposure to ground water contaminated by chemicals from VWP could result in significant health risks. No significant ecological risks were detected. In June 1990, a pump-and-treat system began operation in order to control the migration of the contaminant plume.

In June 1991, the RI/FS was completed. It concluded that: the contaminants of concern in both soil and ground water were hexavalent chromium and arsenic; the ground water plume was mobile and migrating towards domestic wells; additional investigation of the vertical extent of the ground water plume was required; and remedial technologies were available for cleanup.

On September 27, 1991, EPA signed the Record of Decision (ROD). The ROD's remedy for the ground water contamination was electrochemical treatment, in conjunction with the existing pump-and-treat system. Briefly, electrochemical treatment involves passing an electrical current through a contaminated solution. Ions that tend to have a positive charge in solution like chromium and arsenic would selectively migrate to the negatively-charged portion of the system, and then be collected and separated.

The ROD's remedy to combat the soil contamination was a program of excavation, fixation, and on-site disposal. The ROD established various cleanup standards for the contaminants of

concern. For surface soils (defined as 0 to 4 feet in depth) the ROD standards for hexavalent chromium are 4 mg/kg, and 2 mg/kg for arsenic. For subsurface soils (from 4 feet below the land surface down to the water table) the ROD standards are based upon a leachate test. After testing, if the soils' leachate had concentrations of more than 5 parts per billion (ppb) of hexavalent chromium and/or arsenic, that soil would be considered contaminated. For ground water, the ROD standards are 50 ppb for hexavalent chromium and 16 ppb for arsenic.

The remedy selected to address the contaminated soil was to excavate the soil, fix and stabilize the hazardous substances in the soil with a stabilizing agent, and backfill the fixed-soils into the excavated areas. Measures such as covers of clean soil or other capping mechanisms would be taken to protect the surface of the fixed soil from physical decomposition. Institutional controls were required to ensure that future land-use practices would be compatible with the fixed-soil. Based on information available at the time that the ROD was developed, it was estimated that 15,000 cubic yards of soil would have been subject to remediation.

In the 1991 ROD, the cleanup standards for soil were developed based on applicable or relevant and appropriate requirements (ARARs) and health protection criteria. The surface soil cleanup standards were based on potential health risks from inhalation and direct contact, assuming unrestricted Site use (e.g., residential use). The standards were set at 4 mg/kg for hexavalent chromium and 2 mg/kg for arsenic, which corresponded to a 1 x 10^{-6} excess cancer risk. The cleanup standard set at 2 mg/kg for arsenic was at or below background concentrations in soil in the Site vicinity. The subsurface cleanup standards were based on the protection of ground water from contaminated leachate from the soil. The cleanup standards were set at 5 ppb for both arsenic and hexavalent chromium as measured in the leachate from the subsurface soil. Those levels were based on the Designated Level Methodology for characterizing wastes in soil prepared by the CVWQCB in June 1989.

3. EPA's May 2000 Proposed Plan to Address Soil Contamination

Subsequent to the ROD, EPA recognized that the soil cleanup standards were overly conservative as they were set below or close to background concentrations and were not appropriate for the planned land reuse. The original assumption for the determination of cleanup standards was that future Site use would be residential. This assumption is no longer valid given the proposed zoning changes and commitment by VWP to restrict future residential use via a deed restriction and/or restrictive covenant that would run with the land. Accordingly, EPA proposed soil cleanup standards of 30 mg/kg for arsenic and 10 mg/kg for hexavalent chromium in its May 2000 Proposed Plan. The proposed EPA standards were based upon risk calculations for an industrial site at this location. In addition, EPA believes that the leachate test showed little correlation between measured soil contamination and leachate results; thus making the remedial action difficult to implement. EPA proposed that all soil, regardless of depth of origin, was to meet a single standard, and thereby avoid confusion and/or redundancy. Consequently, the requirement for the leaching test for subsurface soil has been eliminated.

C. Community Participation

Community interest was high during the late 1970's, primarily due to concerns about odors, potentially contaminated domestic wells, and general exposures to on-site chemicals. Since the beginning of remedial activities, the interest level has decreased. Before release of the ROD, EPA encouraged public participation and met the requirements for public participation under Section 113(k)(2)(B) of CERCLA, 42 U.S.C. § 9613(k)(2)(B). Public participation before the ROD included release of the Community Involvement Plan, several facts sheets, community interviews, a Proposed Plan and a formal public meeting.

In accordance with Section 117(a) of CERCLA, EPA solicited public comments in writing on the Proposed Plan for soil remediation from May 4 to June 3, 2000. EPA held a formal public meeting on May 17, 2000 at the Veterans of Foreign Wars Hall in Turlock, California for the purpose of presenting to the public the Proposed Plan for soil remediation at the Site. At that meeting, the Proposed Plan was presented, as well as a summary of detailed information included in the Remedial Investigation and Feasibility Study (RI/FS) reports and other related documents for the Site. Comments from the public comment period, including comments from state agencies, have been included in this document, in the Responsiveness Summary.

D. Basis for the ROD Amendment

Under Section 117 of CERCLA, 42 U.S.C. § 9617, and pursuant to Section 300.435(c)(2)(ii) of the NCP, 40 CFR § 300.435(c)(2)(ii) (55 Fed. Reg. 8666, 8852 (March 1990)), EPA is required to publish a ROD Amendment when fundamental changes are made to a final remedial action plan as described in a ROD. EPA is making these changes to the ROD to: (1) take into account that current and future Site use will exclude residential uses; (2) establish cleanup standards that are appropriate for the Site; (3) account for technical data obtained since 1991; and (4) select a more cost-effective and appropriate remedy, given the changes to the Site's contamination profile.

EPA has conducted risk assessments to estimate the potential health and environmental risks posed by contaminants at the Site. The risk assessments considered the possible exposure risks from contaminants present in both soil and ground water. Results of the risk assessment are presented in detail in the Final Focused Feasibility Study of April 2000.

The VWP Site is an industrial facility. VWP, the owner of the Site, has agreed to land use controls preventing future residential use of the property (the one former residence on the Site has been removed). Moreover, VWP has submitted an application to rezone the property to "planned industrial" (or a similar, non-residential designation). Therefore, EPA evaluated two scenarios in which individuals might be exposed to the soil: (1) potential current and future exposure to workers, and (2) potential current and future exposure to Site visitors. A person from one of these groups could become exposed by inadvertently ingesting soil, breathing in soil particles, or through skin contact with the contaminated soils. This baseline risk assessment did not evaluate past exposures.

EPA assessed these potential risks by: (1) identifying the chemicals present in the soil; (2) characterizing the population potentially exposed to these contaminants; and (3) evaluating the potential health effects resulting from exposure to the contaminated soil. EPA uses protective assumptions and very high safety factors when performing these assessments to ensure that public health is protected.

EPA considers two types of risk: cancer risk and non-cancer risk. Cancer risk is reported as the chance that a person exposed to a chemical will get cancer from exposure during a 30-year period. For example, a cancer risk of one in one million would mean that there is one chance in a million that a person would get cancer because of exposure to the chemical for 30 years. Risks greater than one in ten thousand generally mean that some action must take place at a Site.

Non-cancer risks are measured by what is called a Hazard Index (HI). The HI for a Site is calculated according to the types and amounts of chemicals at a Site and the types of exposures that may occur. If the HI is less than one (1), it is extremely unlikely that a non-cancer health reaction could occur. An HI above one means that adverse effects could happen. The higher the value of the HI, means the greater the chances that adverse effects will occur. Non-cancer risks greater than one generally mean that some action has to be taken at a Site. Non-cancer risks include skin irritation and rashes, eye irritation, nausea, and diarrhea.

At the VWP Site, cancer risks associated with average exposure to soils were 3×10^{-7} which is below levels requiring action to protect off-site residents. Based on land-use controls, there will be no future on-site residents, only on-site workers and visitors. Once the Site is remediated to meet the revised cleanup standards for soil, the theoretical cancer risk for on-site workers and visitors will be less than one in one hundred thousand. This level of risk is within the range of acceptable risks used by both EPA and Cal-EPA.

Hazard indices associated with average exposure to ground water exceeded levels requiring action to protect off-site residents. Arsenic, which is considered carcinogenic if ingested, was not detected in off-site ground water; hexavalent chromium, which is not considered carcinogenic if ingested, was detected in off-site ground water. Impacted off-site water supply wells were replaced with a clean water supply beginning in 1990.

EPA also performed a preliminary risk assessment for potential risks to ecological receptors, such as wildlife or fish. The evaluation indicated that there are no aquatic communities, wetlands, or endangered or threatened species in the Site vicinity. Based on these results, a detailed ecological risk assessment was not required.

It is important to emphasize that the ROD standards for VWP were promulgated based upon potential residential usage of the property and the high concentrations of pollutants. The lower concentrations, lower contaminated soil volumes, and the commitment from the property owner, VWP, to place restrictive covenants on the property and to work with Stanislaus County to rezone the property to "planned industrial" (or a similar, non-residential designation) are the factors that require a change to the ROD, and thus the need for this ROD amendment. Based on the human health and preliminary ecological risk assessment, cleanup standards are established

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to be protective of on-site workers, visitors, and ground water quality.

It is EPA's current judgment that the preferred revised remedial alternative identified in the FFS is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

E. Selected Remedy

The following section describes the modifications to the 1991 ROD.

Containment of contaminated soil has been, and will continue to be, achieved through different processes. The ROD of 1991 proposed an excavation, chemical fixation, and on-site disposal option for the cleanup of soil contaminated with the contaminants of concern. In this case, EPA believes that soil excavation and removal is a superior option since the affected soil mass will be permanently removed from the Site and land reuse options will be improved. It is expected that this excavation will also reduce the arsenic and hexavalent chromium available to leach into the ground water. However, during the excavation activity, a potential will exist for arsenic and hexavalent chromium to leach into the ground water. Therefore, to continue the protectiveness of the remedy, it is expected that the ground water pump-and-treat system will continue to operate until the soil and ground water cleanup standards are met.

New Institutional Controls

An important consideration to the cleanup standard is the planned land use or zoning of the property, and the agreed-to restrictive covenants between VWP and DTSC. VWP has agreed to seek rezoning of the property. The Site is currently zoned A-2-10 (general agriculture) in Stanislaus County. This allows one residence for every 10 acres of land. Through a restrictive covenant VWP will not be allowed to divide the parcel that currently comprises the Site. In addition, the need for other restrictions including restrictions on further excavations will be considered. Rezoning of the property to a "planned commercial" (or similar) designation would prevent the construction of residences on the property. This would change exposure routes, potential receptors, and the cleanup standards for the contaminants of concern. It is anticipated that this new land use restriction will be developed with the local governing bodies in accordance with local, county, and state regulations. The cleanup standards and remedies put forth in this document reflect the new "planned commercial" zoning.

F. Remedial Action Objectives

The Remedial Action Objectives (RAOs) describe what the proposed Site cleanup is expected to accomplish. The RAOs for the soil clean up program at the Site remain the same as in the ROD. They are to:

- Protect human health and the environment; and
- · Protect ground water quality based on the potential for arsenic and/or hexavalent

chromium in the soils to contaminate the ground water.

EPA has proposed revised soil cleanup standards for the Site. These are 25 mg/kg for arsenic, and 4 mg/kg for hexavalent chromium for all soil. The 1991 ROD presented cleanup levels of 2 mg/kg for arsenic and 4 mg/kg for hexavalent chromium in surface soils. The 1991 cleanup standard for arsenic corresponded to a concentration at or below background levels, and was intended to be protective of human health if the Site was used for residential purposes. The revised cleanup standards were selected to be protective of human health for Site use for "planned commercial" purposes, and are based on the results of a Site-specific health risk assessment. Soil cleanup standards of 25 mg/kg for arsenic and 4 mg/kg for hexavalent chromium are consistent with the revised Site-specific cleanup standard recommended by EPA in an August 26, 1994 letter prepared by EPA entitled "Proposed Soil Cleanup Standards, Valley Wood Preserving Superfund Site" and a March 1997 Memorandum for Record prepared by EPA, entitled "Soil Cleanup Standards, Valley Wood Preserving Superfund Site." The standards have been based upon risk calculations for an industrial facility at this location. The State of California concurs with these soil cleanup standards.

Contaminant	Soil Class	Depth, below ground surface	Leachate Test or Soil Concentration	Cleanup Standard
Arsenic	surface	0-4 feet	Soil Concentration	2 ppm
Arsenic	subsurface	4 ft to water table	Leachate Test	5 ppb
Hex. Chromium	surface	0-4 ft	Soil Concentration	4 ppm
Hex. Chromium	subsurface	4 ft to water table	Leachate Test	5 ppb

Table 1: Original Soil Cleanup Levels, 1991 ROD

Table 2: Revised Soil Cleanup Levels, 2003 ROD Amendment

Contaminant	Soil Class	Depth, below ground surface	Leachate Test or Soil Concentration	Cleanup Standard*
Arsenic	surface	0 ft to water table	Soil Concentration	25 mg/kg
Hex. Chromium	surface	0 ft to water table	Soil Concentration	4 mg/kg

* 1 ppm is almost exactly equal to 1 mg/kg; mg/kg does not depend on temperature and other factors

G. Evaluation of Alternatives under NCP Criteria

1. Summary of Cleanup Alternatives

EPA considered several alternatives to reduce the risk from potential exposure to soil and to protect ground water. Each of the alternatives was compared against the nine criteria established in the NCP.

Alternative 1 – No Action

Estimated Cost = \$0 (net present value)

In this alternative no action is taken to clean up the soil at the Site. EPA is required to consider a No Action alternative to serve as a baseline for comparison with other remedial alternatives. There is no cost associated with this alternative. It would provide the least overall protection to human health and the environment. The No Action alternative does not meet EPA remedial action objectives and does not comply with either state or federal requirements.

Alternative 2 – Excavation and Off-site Disposal EPA's Preferred Alternative

Estimated Cost = \$295,000 (2000 net value)

Excavation and Off-site Disposal is EPA's Preferred Alternative. It consists of excavating soil containing arsenic and/or hexavalent chromium at levels greater than the Site cleanup standards. The excavated soil would then be transported to an approved landfill for disposal. The excavated areas would be backfilled with clean soil.

This alternative can be easily implemented and would be the most effective in the long term. It would meet all of the remedial action objectives and can be done in compliance with all state and federal requirements. There would be a slight, temporary risk to the on-site workers involved in the excavations due to the potential of becoming exposed to contaminated soil. However, all workers would be trained according to California health and safety guidelines and would use appropriate protective clothing to reduce the potential of exposure.

The costs for this alternative were estimated to be \$295,000 (year 2000 capital cost). There are no annual maintenance costs associated with this alternative. It is estimated that it would take approximately 3 months to implement this solution.

Alternative 3 - Fixation and Capping Estimated Costs = \$362,000 (2000 net value)

This alternative consists of excavating soil containing arsenic and/or hexavalent chromium at levels greater than the Site cleanup standards, treating the soil with cement-like chemicals so that the arsenic and/or hexavalent chromium will be trapped in the soil (i.e., "fixing" the soil), and replacing the fixed soil back into the excavated areas. The areas of fixed and replaced soil would be covered with asphalt to seal them in place.

The excavated soil would be fixed with the treatment chemicals in a treatment system which would be brought on Site. The treated soil would then be tested according to EPA and California requirements before being placed back into the excavation. A cap would be placed over the treated areas to seal all of the treated soil in place and reduce the possibility that people would be

exposed to it in the future.

This alternative can be implemented, as excavation and fixation are proven technologies. It would meet all of the remedial action objectives if the cap were properly maintained. The work can be completed in compliance with all State and Federal requirements. There would be a slight risk to the on-site workers involved in the excavation and fixation due to the potential of becoming exposed to contaminated soil. However, all workers would be trained according to California health and safety guidelines and would use appropriate protective clothing to reduce the potential of exposure. This alternative would be effective in the long term if the cap and land use restrictions were maintained. The local government would become involved to restrict future building and excavation activities.

The total costs for this alternative were estimated to be \$362,000 in year 2000 dollars. Of this amount, it was estimated that \$21,000 (30-year value cost in 2000) would be required to maintain the cap. It is estimated that it would take approximately 4 months to implement this solution.

2. Nine NCP Criteria

A Starty

To select a remedy, EPA used the nine criteria set forth in the NCP and CERCLA Section 121 to evaluate each remediation alternative and compare them against each other. The nine evaluation criteria are:

- 1. Overall Protection of Human Health and the Environment
- 2. Compliance with ARARs
- 3. Long-term Effectiveness and Permanence
- 4. Reduction of Toxicity, Mobility, or Volume through Treatment
- 5. Short-term Effectiveness
- 6. Implementability
- 7. Cost
- 8. State Acceptance
- 9. Community Acceptance

Of the above criteria, numbers 1 and 2 are considered Threshold Criteria, denoting that both criteria must be met for a remedy to be considered. The criteria numbered 3 through 7 above are considered Primary Balancing Criteria, reflecting that they are used for further evaluating the remedial alternatives. The criteria numbered 8 and 9 are considered during the final remedy selection process. With an evaluation based upon these criteria, EPA's preferred alternative is *Alternative 2*, Excavation and Off-site Disposal.

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Alternative 1 (No Action) provides the least protection to human health and the environment, does not meet State or Federal requirements, and does not meet the remedial action objectives. Thus, Alternative 1 cannot be selected.

Alternative 2 (Excavation and Off-site Disposal) and Alternative 3 (Fixation and Capping) can both be implemented to satisfy the Threshold Criteria. The Final Focused Feasibility Study of April 2000 lists the ARARs for this Site. They include the Clean Air Act, the Safe Drinking Water Act, and the Resource Conservation and Recovery Act, among others. Excavation and disposal activities trigger the RCRA Subtitle C ARARs since those actions are considered treatment, storage, and/or disposal. In addition, Alternative 2 and Alternative 3 meet the remedial action objectives and share equal short-term effectiveness.

Alternative 2 is ranked higher than Alternative 3 in long-term effectiveness because contaminated soil will be removed from the Site. Alternative 3 will require continual maintenance of the asphalt cap and the monitoring of on-site activities in order to remain effective. Alternatives 2 and 3 will require institutional controls to remain effective.

Alternative 2 is ranked higher than Alternative 3 in the reduction in toxicity, mobility, and volume. Alternative 2 would reduce the toxicity and volume of the contaminated soil on Site whereas Alternative 3 would not. Also, Alternative 3 would reduce the chemical mobility, but would increase the volume of contaminated soil on Site. On the other hand, Alternative 2 would reduce chemical mobility by placing the contaminated soil in an approved landfill. Alternative 3 would reduce the mobility but would result in an increase in volume of contaminated soil. Alternative 2 and Alternative 3 are equal in terms of implementability, but Alternative 2 is ranked higher than Alternative 3 in terms of cost. Alternative 2 was accepted by the community, based on comments received during the public comment period.

The Final Focused Feasibility Study for the Site provides a more detailed evaluation of each alternative with respect to seven of the nine criteria (except state and community acceptance).

Based on the information currently available, EPA believes that the Preferred Alternative, Alternative 2, meets the Threshold Criteria and meets, or exceeds, the other alternatives in terms of the Balancing Criteria.

EPA expects the Preferred Alternative to satisfy the statutory requirements in CERCLA Section 121(b): 1) to be protective of human health and the environment; 2) to comply with state and federal guidelines and regulations; 3) to be cost effective; 4) to utilize permanent solutions and alternative treatment technologies to the maximum extent practicable; and 5) to satisfy the preference for treatment as a principal element.

3. Support Agency Acceptance

EPA and the State of California regulatory agencies (DTSC and CVRWQCB) have discussed the changes set forth in this Amendment. The CVRWQCB disagreed with the revised soil standards that EPA proposed in April 2000. Since then, DTSC and CVRWQCB have taken active roles in

the decision to revise the standards. Both agencies now concur with the final cleanup standards for soil that are included in this document.

4. Public Participation Activities

EPA held a thirty-day public comment period from May 4 through June 3, 2000. A public meeting was held in Turlock on May 17, 2000, where EPA presented the revised preferred alternative and members of the community had an opportunity to ask questions and comment. All comments received have been included in the Administrative Record for the Site, and are summarized in the attached Response Summary. EPA provided this opportunity to encourage. maximum public participation in the Amendment process for the Site, as required by 40 C.F.R. § 300.435(c)(2)(ii).

H. STATUTORY DETERMINATIONS

EPA believes that the soil remedy as modified by this Amendment remains fully protective of human health and the environment, complies with all State and Federal requirements that are applicable or relevant and appropriate to this remedial action, and is cost-effective. In addition, the soil remedy satisfies the statutory preference for remedies that employ treatment that permanently and significantly reduce toxicity, mobility, and volume of the hazardous substances located at a Site, consistent with Section 121(b)(1) of CERCLA, 42 U.S.C. § 9621(b)(1).

PART 3: RESPONSIVENESS SUMMARY

A revised soil cleanup plan, termed the Valley Wood Preserving Superfund Site Proposed Plan (the Proposed Plan) was issued in May 2000. The Proposed Plan described EPA's preferred remedial alternatives for soil cleanup at the Site. In accordance with Section 117(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, 42 U.S.C. § 9617(a), EPA announced the Proposed Plan in order to solicit public input. Public comments were requested in writing from May 4, 2000 through June 3, 2000; however, it was emphasized that comments would also be accepted by mail, fax, or over the phone during that 30-day period. In addition, EPA held a public meeting on May 17, 2000 at the Veterans of Foreign Wars Hall in Turlock, California. The purpose of this public meeting was to discuss the Proposed Plan and obtain additional public comments.

A. Summary of Comments Received

1. Comments from Community Members, in italics; EPA response follows

Q: Why is this cleanup taking so long?

A: There is a formal process that EPA must follow. Many of our steps are legally required and may not be waived. On this project, there have also been additional delays due to litigation, funding issues, changes in actions, additional Site characterization, interim systems, and other investigations. Finally, the process of engineering, approving, testing, and running an innovative ground water remediation system also requires a great deal of time.

Q: Why is EPA changing its mind?

A: We are choosing to implement a remedy that is appropriate for a practical land reuse by changing the cleanup standards and controls. The original standards were based upon residential use, and required standards to include the possibility of children and the elderly on the Site for extended periods of time. Sites that are not residential, but instead industrial, have different standards. For example, it is assumed that industrial workers will not sleep overnight at the Site, or make mud pies in the yard. Also, it is important to note that environmental approaches have changed in the last 10-12 years. Improved sampling techniques allow more thorough analyses, with less uncertainty.

Q: What is EPA doing with the soil, and where is the soil going?

A: Contaminated soil that has been excavated must be taken to an approved landfill for proper disposal. Such soil may not be reused. Examples of nearby approved landfills are Forward in Stockton and Chem Waste in Kettleman Hills.

Q: What are the current risks?

A: The primary risk remains contaminated ground water. The remedy in place continues to improve the ground water, with the goal of returning that water to its beneficial use. Residents affected by the ground water contamination have had deeper wells installed by VWP, allowing the residents access to clean water. By being in contact with the shallow ground water, soil contamination continues to be a source of ground water contamination and a principal threat. Both arsenic and hexavalent chromium have the potential to be human carcinogens. At this Site, inhalation and ingestion are the primary pathways for human health concerns, although both contaminants are eye and skin irritants at very high concentrations.

Q: What are the risks to neighbors?

A: For non-carcinogenic hazard, the pathway of greatest concern is ingestion of contaminated ground water. Therefore, it is important to continue to obtain drinking water from the proper, non-contaminated wells. For carcinogenic risks, the cancer risk is based upon a 30-year continual average exposure. For neighbors, that cancer risk was calculated in the year 2000 to be less than 3 in 1 million for adults, and less than 9 in 1 million for children. Both levels of risk are below the levels required for protective actions.

Q: What are the risks to workers and visitors?

A: Based on the new cleanup levels, the theoretical cancer risk will be less than I in 100,000.

Q: What is the difference in soil volume for this Proposed Plan versus the old one?

A: The old plan estimated a contaminated volume of 15,000 cubic yards. The new plan estimates a volume of 1,600 cubic yards, based upon the remediation efforts to date.

Q: When will everything be completed?

A: For soil, the cleanup action will require between 6 to 12 months after beginning the work. Based upon the current remedy and pace, the ground water cleanup is expected to require several more years.

Q: Why are you changing the remedy?

A: Subsequent to issuing the ROD in 1991, EPA learned that the cleanup standards for arsenic were below background. Also, residential use is no longer planned for the Site, and EPA found the ROD cleanup level for arsenic in surface soils to be overly conservative for an industrial site. Moreover, since the old remedy was to backfill with the fixated soil, it would leave unsightly mounds of material all over the Site. Finally, this new remedy is considered to be more protective of the neighborhood and the future Site workers, since the contaminated material will be shipped off-site.

Q: How will the workers be protected?

A: All workers on this and similar hazardous waste projects are required to have the OSHA 40hour Hazardous Waste certification. This training requires knowledge of safety hazards and proper protective measures. Certainly, workers in the field will be required to wear the proper Personal Protective Equipment (PPE). PPE for this project is anticipated to include air masks and other breathing apparatus, hard hats, steel-toed and steel-shanked boots, in addition to either disposable or easily decontaminated protective clothing. The Site will continue to be secured during the cleanup and removal efforts. After the cleanup, there should be no contaminated soil, and therefore no exposure. At that time, the risks should be identical to a normal construction site.

Q: What alternatives were considered?

A: As shown in the Proposed Plan, three alternatives were considered. They are no action, fixation and capping, and the chosen action, excavation and off-site disposal.

Q: What are the cleanup standards for ground water?

A: As established by the 1991 ROD, the ground water cleanup standards are 50 ppb for hexavalent chromium and 16 ppb for arsenic.

Q: How can you be sure that these soil levels are protective of ground water quality?

A: The ground water cleanup and monitoring will continue after the soil cleanup. EPA believes that this soil cleanup will allow the ground water cleanup to proceed faster by removing the pollution source. Therefore, EPA believes that by removing this pollution source, which is capable of entering the ground water, the remaining ground water cleanup will proceed faster and more efficiently.

2. Comments from State Agencies, in italics; EPA comments follow

Q: The State feels that EPA has not demonstrated that the proposed standards meet the State's Applicable or Relevant and Appropriate Requirements (ARARs) for protection of ground water. In particular, the State feels that the leaching test should still be required, and the State also argues for more stringent cleanup standards.

A: EPA and the State have discussed this issue at length since the issuance of the Proposed Plan in 2000. EPA provided additional data supporting the proposed soil cleanup standard for arsenic and eliminating the use of the leaching test at this Site. In addition, EPA believes that for this Site, the leaching tests are not a reliable estimator of either present or future contamination levels. On August 16, 2002, the State concurred with EPA on the selected remedy described in this ROD Amendment. The new soil cleanup levels have been established at 25 mg/kg for arsenic and 4 mg/kg for hexavalent chromium. No leaching tests shall be required.

Q: The state wants assurances that the current monitoring and treatment system will continue, in order to achieve cleanup levels in ground water.

A: EPA intends to continue the current ground water treatment system, but some modifications may be necessary. For instance, unused, unproductive, and/or unnecessary wells shall receive permission to be abandoned per local regulatory guidelines. This will lessen the potential for vandalism, illegal dumping, and damage from equipment and livestock. Leaking or improperly screened wells shall also be repaired or abandoned in order to eliminate faulty data.

Q: The lower standards imply that the contaminated soil levels will be greater than the 1,600 cubic yard quantity mentioned in the Proposed Plan. Should the Proposed Plan be revised to reflect this?

A: The 1,600 cubic yard number is an estimate, and the best guess of EPA at that time. However, EPA believes that the contaminated soils are in localized areas, and mostly at or near the western portion of the property. Thus, EPA does expect the affected soil volume to increase, but the new soil volume is not expected to be anywhere near the 15,000 cubic yards previously estimated.

Q: The State has several requirements and concerns regarding any future Work Plans for the cleanup at the Site.

A: EPA will require a Work Plan for the removal effort at the Site. EPA will actively seek out comments and feedback from the State before any Work Plan is approved. EPA will also attempt to obtain concurrence from the State on any Work Plan, in order to assure that those concerns have been addressed.

Q: The State is concerned about the high levels of sulfates (up to 1070 mg/L) present in some locations.

In the May 2003 sampling, the level of maximum sulfate concentrations in ground water was 351 mg/L. Localized treatments are being discussed as a method to bring those concentrations below the 250 mg/L secondary MCL for California. EPA will continue monitoring sulfate in the groundwater and will take appropriate actions if necessary.

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Soil Remedy UAO Valley Wood Preserving Superfund Site

ATTACHMENT 3



Soil Remediation Work Plan

Valley Wood Preserving Site Turlock, California

Prepared for:

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July 12th, 2004

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SOIL REMEDIATION WORK PLAN Valley Wood Preserving Site Turlock, California

1.0 INTRODUCTION

The purpose of this Work Plan is to provide details on how the soil remediation will be implemented at the Valley Wood Preserving Site, Turlock, California (Site). This Work Plan has been prepared by Geomatrix Consultants, Inc. on behalf of Valley Wood Preserving, Inc. As presented in the Focused Feasibility Study (Geomatrix, April 2000) and the Proposed Plan (EPA, May 2000), the proposed soil remediation consists of excavating soil containing arsenic and hexavalent chromium above the Site cleanup standards (25 milligrams per kilogram (mg/kg) for arsenic and 4 mg/kg for hexavalent chromium), transporting the excavated soil that exceeds the Site cleanup standards to an approved landfill for disposal, then backfilling the excavated areas with clean fill. Details on how this will be implemented are presented in this Work Plan.

2.0 SITE BACKGROUND

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The Site is a former wood preserving facility occupying 14.4 acres at 2237 South Golden State Boulevard in Turlock, California (see Figure 1). The Site is bounded by South Golden State Boulevard to the east, a vineyard to the north, a poultry farm to the south, and agricultural/ residential lots to the west. A 6-foot-high fence surrounds the Site.

Several phases of Site characterization performed over the period from 1985 to 2004 have resulted in the identification of soil requiring remediation to meet cleanup standards established by the EPA.

3.0 **PROJECT ORGANIZATION**

The Site Owner, VWP, will be the overall project coordinator. Mr. Bob Schmidt of VWP will be the project point of contact. VWP will directly retain qualified, licensed subcontractors and personnel to perform earthwork activities, materials sampling, laboratory analytical services, and transport services. VWP proposes to contract with GeoAnalytical Laboratories, Inc. of Modesto, California, for laboratory services. This is the lab which VWP has contracted with for many years. A list of other subcontractors and their respective California licenses will be provided to the U.S. Environmental Projection Agency (EPA) in advance of the work. VWP, or its contractors, will contract with disposal facilities to receive materials removed from the

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Site. Before work at the Site commences, VWP will be responsible for ensuring that all subcontractors and personnel retained for the work are qualified to perform work at hazardous waste sites and that subcontractors and personnel will comply with the Site-Specific Health and Safety Plan (SSHSP).

Montgomery Watson Harza (MWH) has prepared a plan change form to the existing SSHSP, specifically addressing the soil remediation effort. MWH will also assist with project oversight and quality assurance/quality control as necessary, assist with regulatory agency communications, and prepare the Remedial Action Completion Report.

VWP plans to use the following disposal facilities:

- Class 2 materials (soil, asphalt or concrete) Forward Landfill, in Stockton, California (or equivalent).
- California Hazardous Waste or RCRA Hazardous Waste (soil, asphalt, concrete, gravel, or cinder block) Chemical Waste Management facility in Kettlemen City, California (or equivalent).

The U.S. EPA, Region 9, is the regulatory lead for the project. As such, the EPA has enforcement authority, and is responsible for ensuring that the project is completed according to the approved Work Plan. The EPA's point of contact is Mr. Frederick Schauffler, Branch Chief.

4.0 WORK PLAN

Details of how the soil remediation will be implemented are presented below in approximate chronological order. A Site Plan is presented on Sheet G-1 of this document with a smaller scale plan of the proposed excavation areas presented on Sheet G-2. A summary of analytical soil data is presented in Table 1. Soil boring locations are presented on Figure 2. Figure 3 shows proposed excavation boundary confirmation sample locations. Table 2 lists proposed excavation boundary confirmation samples. Table 3 lists proposed excavation stockpile samples and Table 4 lists estimated disposal volumes. Figure 4 shows proposed excavation stockpile locations in the Work Zone, Decontamination Area, and Truck Loading Area. Figures 5 and 6 are flow charts showing the stockpile characterization process for determining disposal options for area A7-1. Figure 7 is a project construction schedule.



4.1 UNDERGROUND AND ABOVEGROUND UTILITY IDENTIFICATION

Prior to initiating excavation activities, the proposed work areas will be cleared for both underground and aboveground utilities. Underground Service Alert (USA) will be contacted to identify utilities. VWP personnel will verify the locations of all utilities in the work areas.

4.2 STAKE OUT EXCAVATION BOUNDARIES

The excavation boundaries will be staked out in the field by appropriately qualified personnel, relative to the sample locations shown on Sheet G-2.

4.3 MOVE GROUNDWATER REMEDIATION SYSTEM

The groundwater treatment system will be shut down and moved in advance of the soil remediation effort. Equipment will be stored in the Former Equipment Rental Building or in the Pole Shed Barn (see Sheet G-1). Once the excavation is complete and backfilled, an assessment will be made by EPA whether the groundwater treatment system needs to be reassembled and returned to service.

4.4 **PRE-EXCAVATION PREPARATION**

To access underlying soil in the remediation areas, concrete and asphalt will need to be removed (see Items 10 and 14 on Sheets G-1 and G-2). Concrete and asphalt from within the proposed excavation areas, except for area A7-1, will be disposed off-site as hazardous listed waste. Concrete and asphalt from within, and concrete adjacent to, area A7-1 will be stock-piled, sampled and disposed off-site according to the sampling results criteria illustrated in Figures 5 and 6. If staining or veining is noted on concrete or asphalt from Area A7-1, a portion of the stained material will be included in the sample. Concrete and asphalt will be stored separately on the paved Stockpile Area shown on Figure 4. The specific location within the Stockpile Area will be determined in the field.

Gravel from beneath the former 660,000 gallon storage tank will be excavated and disposed off-site as hazardous listed waste. The cinder block wall surrounding the former 660,000 gallon storage tank will also be demolished and disposed off-site as hazardous listed waste.

4.5 EXCAVATED SOIL

Excavations will be completed in the areas shown on Sheets G-1 and G-2. Except for area A7-1, excavated soil will be disposed off-site as hazardous listed waste without any additional soil sampling. Soil from area A7-1 will be stockpiled on the paved Stockpile Area shown on Figure 4.

The following field procedures will be used during excavation work:

- VWP or designated representative will direct excavation activities.
- Soil will be excavated and handled with appropriate equipment to match work requirements, which may include excavators, backhoes, and/or loaders operated by properly trained personnel retained by VWP. The operator(s) will be 40-hour health and safety trained, per OSHA requirements.
- No one will enter the excavations at any time, so shoring of the excavations will not be required.
- Excavation sidewalls will be sloped sufficiently to prevent cave-in, as needed.
- Depths of the excavations will be no greater than the groundwater table, and no dewatering of the excavations will be required.
- Dust control measures (fine water spray) will be implemented during excavation and loading activities to minimize the generation of visible dust. Dust control will be implemented to ensure there will be no visible dust at the site perimeter.
- At the conclusion of each excavation, trained field personnel will verify that excavated areas and depths match those shown on Sheet G-2.
- Confirmatory soil samples will be taken, as discussed in Section 4.6.
- Excavation boundaries will be expanded if confirmation sampling data indicate expansion is required, as discussed in Section 4.6.
- Excavations will be secured with caution tape until they are backfilled.
- Workers will remain in the Work Zone shown on Figure 4 during excavation activities, and implement personal decontamination in the Decontamination Area (see Figure 4) when leaving the Work Zone. Only 40-hour trained personnel will enter the Work Zone.
- Equipment will be decontaminated in the Equipment Decontamination Area (see Figure 4) when leaving the Work Zone. Equipment decontamination procedures will consist of manually scraping/brushing off soil clods from the wheels, undercarriages, blades/buckets, and beds of trucks. The use of water to decontaminate equipment is not anticipated, as the soil is sandy and will be relatively dry.

4.6 **POST-EXCAVATION CONFIRMATION SAMPLING**

Excavation limits will be confirmed through the collection and analysis of soil samples once the proposed excavation has been completed. Confirmation samples will be collected from the excavation sidewalls at a rate of one sample per 200 square feet of excavation side wall. Each sample will comprise several representative subsamples taken from a single excavator bucket.



If visual staining of chromium or arsenic is noted in the excavation side walls, samples will be collected from the stained areas. For excavation areas A4-1 through A4-4, confirmation samples at the bottom of the excavation will be collected at the rate of one sample for every 200 square feet of bottom area. If visual staining of chromium or arsenic is noted in the bottom of the excavation, samples will be collected from the stained areas. Table 2 lists the samples to be collected, and Figure 3 shows their locations. The soil samples will be collected using an excavator bucket, as personnel will not be allowed into the excavation. The soil samples will be analyzed for total arsenic and hexavalent chromium according to EPA Methods 6010 and 7196A, respectively. Field duplicate samples will be collected at a rate of 1 duplicate per every 15 primary samples collected as directed by EPA. A synopsis of Laboratory QA/QC Procedures is presented in Appendix A, taken from the *Final Sampling and Analysis Plan Groundwater Pilot Study (SAP)* dated March 10, 1998 and amendment dated June 2, 2000.¹

If sample results indicate that any of the sample locations contain arsenic or hexavalent chromium at concentrations exceeding the Site cleanup standards, then the excavation will be enlarged, and additional samples will be collected at the new excavation boundary. This process will continue until all proposed excavation boundaries meet the Site cleanup standards.

The vertical extent of the deeper excavations will be defined by groundwater level. For areas designated for deeper excavation, confirmation samples will be collected from sidewalls only. Confirmation samples collected from the depth corresponding to the excavation bottom are not necessary in the deeper excavations, as the groundwater level is being used as the vertical boundary.

4.7 STOCKPILE HANDLING

Except for Area 7-1, excavated materials will be directly loaded into trucks, or temporarily stockpiled then loaded into trucks, and disposed off-site as hazardous listed waste. No additional sampling of these materials is required. For Area 7-1, stockpile handling will be dealt with as follows:

- The stockpile locations will be determined in the field, as directed by VWP or its representative. Stockpiles will not be moved unless directed by VWP or its representative.
- Stockpiles will be sloped sufficiently to prevent sloughing.

¹ Fluor Daniel GTI, Inc. March 10, 1998. Final Sampling and Analysis Plan, Groundwater Pilot Study and June 2000 Amendment.



- Stockpiles will be covered and secured with visquene and tires/rocks or hydromulchTM while waiting for analytical results.
- Soil, concrete and asphalt will be disposed of at an appropriate off-site facility according to the sampling results.

Soil, concrete, and asphalt that is characterized with arsenic and hexavalent chromium concentrations below the cleanup standards will be disposed at a Class 3 landfill. Soil, concrete, and asphalt stockpiles that are characterized with arsenic and/or hexavalent chromium above the cleanup standards will be off-hauled and disposed of according to their classifications.

Dust control measures (fine water spray) will be implemented when unloading materials to the Stockpile Area, consolidating the stockpiles, and reloading contaminated materials into trucks for transport.

Decontamination of the stockpile areas after the stockpiles have been removed will be completed by sweeping the pavement with brooms. As no excavation will be completed below the water table and soil at the site is sandy, it is anticipated that the stockpiled materials will be relatively dry. Swept soil will be combined with respective stockpiles, if possible. Any remaining soil swept from areas in which the stockpiles contained analytes above the cleanup standards will be similarly disposed of. Any remaining soil swept from areas in which the stockpiles did not contain analytes above the cleanup standards will be placed into the excavations.

4.8 STOCKPILE OFF-HAUL

The following procedures will be followed for materials from area A7-1 that require off-haul to an off-site location.

- Trucks arriving to load soil for off-haul will wait in a designated "clean area" until needed.
- Trucks will enter the Work Zone and be loaded adjacent to the stockpiles. Personnel will clear any soil clods from trucks adjacent to stockpile areas before leaving the area. The need for decontaminating trucks with water is not anticipated, as the soil will be relatively dry.
- Windows to the truck cab will be kept closed during loading.
- A portable scale may be used to weigh trucks before leaving the site to ensure compliance with Department of Transportation (DOT) weight limits.
- Trucks will leave the Work Zone and move to a separate designated area for tarping and manifesting. VWP or a designated representative will inspect trucks for proper labeling. VWP will sign manifests as the generator.



For areas other than area A7-1, the same procedures will be followed except that trucks will be direct-loaded from the excavation rather than from stockpiles. Table 4 summarizes estimated disposal volumes. It is estimated that between 175 and 200 20-ton trucks will be required to off-haul excavated material.

4.9 EXCAVATION BACKFILLING

VWP will retain properly trained operators to backfill the excavations using soil that meets cleanup criteria. Backfill materials will be certified by the supplier, by means of independent laboratory analysis, to be below the cleanup goals for arsenic and hexavalent chromium. The EPA will be provided with a certified copy for approval of the proposed backfill materials at least two weeks prior to the start of backfill operation. Additional analysis may be required depending on the source of the fill materials. Backfill will be placed into the excavations and rough-graded to match adjacent elevations; it is anticipated that approximately 3,500 tons of soil will be required to backfill the excavations. Excavation areas will not be resurfaced with asphalt or concrete at this time. Backfilling will not occur until confirmation data indicate that soil exceeding the site cleanup goals has been excavated. In order to address concerns regarding elevated concentrations of arsenic in groundwater, VWP proposes to add a thin layer of calcium peroxide over the base of each excavation that extends to groundwater prior to backfilling. This may facilitate the deposition of mobile arsenic as a less soluble form, adsorbed to ferric hydroxide and manganese oxy-hydroxides formed by the oxidation of manganous and ferrous ions by the peroxide.

5.0 STOCKPILE SAMPLING PLAN

Stockpiled soil, asphalt, and concrete from area A7-1 will be sampled to characterize the materials for off-site disposal. Materials will be sampled and analyzed at a frequency of one sample per approximately 100-cubic-yard volume, as indicated on Table 3. Each sample will be composited from material derived from four randomly selected locations within the approximately 100-cubic-yard volume. Individual soil samples will be collected in either two 4-oz or one 8-oz glass jars. The analytical laboratory will be instructed to homogenize and composite each set of four individual samples (following appropriate laboratory procedures) into one sample for chemical analyses. Individual asphalt and concrete samples will be collected in 1-gallon capacity zip-lock bags. It is assumed that reasonably small, intact pieces (complete thickness of asphalt or concrete) will be available in the stockpiles for collection; if not, equipment available at the Site can be used to break up the asphalt and concrete to generate smaller pieces. Once at the laboratory, the individual samples will be ground up and composited into a single sample for analyses using appropriate laboratory procedures. Samples will be initially analyzed for total arsenic and hexavalent chromium according to EPA Methods 6010 and 7196A, respectively. Additional solubility analyses using the toxicity characterization leaching procedure (TCLP) or California waste extraction test (Cal WET) procedure will be conducted, as necessary, according to the flow chart presented on Figures 5 and 6. If solubility analyses are necessary for hexavalent chromium, then new samples will be collected from the same locations and will be analyzed, due to the 24-hour holding time for the samples.

6.0 HEALTH AND SAFETY

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MWH has developed a plan change form to the existing SSHSP, specifically addressing the soil remediation effort. The following bullets outline the general health and safety precautions that will need to be taken during construction activities:

- All personnel working in the Work Zone will be 40-hour health and safety trained, per OSHA.
- Operator breathing zone air monitoring will be performed. Perimeter air monitoring will not be performed; visual boundary inspections will be completed to check for visible dust.
- Level D personal protective gear will be worn.
- Dust control (e.g., water spray) will be implemented during excavation activities and stockpile loading to reduce generation of visible dust and ensure no visible dust at the site perimeter.
- Work Zone, Decontamination Areas, and Truck Manifesting Areas will be designated at the Site as shown on Figure 4.
- Personal decontamination procedures will consist of washing boots and hands when leaving the contamination areas. Wash water will be stored temporarily in a small water tank. The water will be processed through the groundwater treatment system if it is replaced, or tested and disposed of, as appropriate.

7.0 SCHEDULE

Figure 7 shows the proposed construction schedule. Pending the EPA's written approval of this Work Plan and issuance of the appropriate community notification by July 30, 2004, the work items outlined in this Work Plan can be initiated at the end of August 2004. Fieldwork is anticipated to be complete by the beginning of October 2004. Final reporting will be completed in October 2004. Adherence to this schedule is dependent on contractor availability and timely regulatory approval.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX 75 Hawthorne Street San Francisco, CA 94105

Bob Schmidt Valley Wood Preserving, Inc. P.O. Box 1805 Turlock, CA 95380 Fax No. (209) 632-8349

Subject: Unilateral Administrative Order 9-2004-17 Valley Wood Preserving Superfund Site, Turlock, California

Dear Mr. Schmidt:

Attached is a Unilateral Administrative Order ("Order") issued by the U.S. Environmental Protection Agency ("EPA") to Valley Wood Preserving, Inc. to conduct the Remedial Design and Remedial Action ("RD/RA") for the soil remedy selected in the September 2003 ROD Amendment for the Valley Wood Preserving Superfund site ("Valley Wood Site"). The Order directs Valley Wood Preserving, Inc. to conduct the soil remedy and to reimburse EPA for its oversight costs.

The Order requires Valley Wood Preserving, Inc. to inform EPA whether it will comply with the Order within 10 days of its effective date. See Order §VII. Section XXVIII of the Order provides Valley Wood Preserving, Inc. with the opportunity to confer with EPA regarding compliance with and implementation of the Order. Should you wish to arrange such a conference with EPA, please contact Bethany Dreyfus at (415) 972-3886.

Sincerely,

selet adams

Elizabeth J. Adams, Chief Site Cleanup Branch Superfund Division, Region IX

Attachment

cc: Kenneth B. Finney, Esq.