

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 7  
901 N. 5<sup>TH</sup> STREET  
KANSAS CITY, KANSAS 66101**

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ENVIRONMENTAL PROTECTION  
AGENCY-REGION VII  
REGIONAL HEARING CLERK

**In the Matter of:** )  
 )  
HIGHWAY OO LEAD SITE )  
 )  
Madison, St. Francois, and St. Genevieve )  
Counties, Missouri )  
 )  
 )  
MISSOURI HIGHWAYS AND )  
TRANSPORTATION COMMISSION )  
 )  
Respondent )  
 )  
 )  
 )  
 )  
Proceedings under Sections 104, 107, 106(a) )  
and 122 of the Comprehensive Environmental )  
Response, Compensation, and Liability Act of 1980 )  
(42 U.S.C. §§ 9604, 9606(a), 9607, and 9622). )  
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**Docket No.** CERCLA-07-2007-0010

**ADMINISTRATIVE  
SETTLEMENT AGREEMENT  
AND ORDER ON CONSENT**

**ADMINISTRATIVE SETTLEMENT AGREEMENT AND  
ORDER ON CONSENT FOR REMOVAL ACTION**

## TABLE OF CONTENTS

I.	Jurisdiction and General Provisions.....	1
II.	Parties Bound .....	2
III.	Definitions.....	2
IV.	EPA's Findings of Fact .....	4
V.	EPA's Conclusions of Law and Determinations.....	5
VI.	Settlement Agreement And Order.....	6
VII.	Designation of Contractor, Project Coordinator, and On-Scene Coordinator .....	6
VIII.	Work to be Performed.....	7
IX.	Submissions Requiring EPA Approval.....	10
X.	Site Access .....	11
XI.	Access to Information .....	12
XII.	Record Retention .....	13
XIII.	Compliance with Other Laws .....	13
XIV.	Emergency Response and Notification of Releases.....	14
XV.	Authority of EPA's Project Coordinator.....	14
XVI.	Payment of Response Costs .....	15
XVII.	Dispute Resolution.....	16
XVIII.	Force Majeure .....	16
XIX.	Stipulated Penalties.....	17
XX.	Covenant Not to Sue by EPA.....	19
XXI.	Reservations of Rights by EPA.....	20
XXII.	Covenant Not to Sue by Respondent .....	21
XXIII.	Other Claims .....	21
XXIV.	Contribution.....	22
XXV.	Indemnification .....	22
XXVI.	Insurance .....	23
XXVII.	Modifications .....	23
XXVIII.	Additional Work .....	24
XXIX.	Notice of Completion of work .....	24
XXX.	Severability/Integration.....	24
XXXI.	Effective Date .....	25

## **I. JURISDICTION AND GENERAL PROVISIONS**

1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and the Missouri Highways and Transportation Commission ("Respondent"). This Settlement Agreement provides for the performance of a removal action by Respondent and the reimbursement of certain response costs incurred by the United States at or in connection with the Highway OO Lead Site ("Site") in Madison, St. Francois, and St. Genevieve Counties, Missouri. The objectives of the removal action are to remove and properly dispose of lead-contaminated material excavated as part of the Highway OO shoulder maintenance activities, and adjacent soils contaminated with lead as a result of contact or mixture with the excavated Highway OO shoulder material, from current locations on private and public lands where it may be causing a threat to human health or the environment.

2. This Order requires Respondent to conduct certain response actions as described in this Settlement Agreement to abate an imminent and substantial endangerment to the public health or welfare or the environment that may be presented by the actual or threatened release of hazardous substances at and/or from the Site.

3. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622, as amended ("CERCLA"). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2926 (1987), and was further delegated to the Regional Administrators on September 13, 1987, by EPA Delegation No. 14-14-C. This authority was subsequently delegated to the Director, Superfund Division, by EPA, Region VII Delegation No. R7-14-14C, dated January 1, 1995.

4. EPA has notified the State of Missouri (the "State") of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

5. EPA and Respondent recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondent in accordance with this Settlement Agreement do not constitute an admission of any liability. Respondent does not admit, and retains the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of facts, conclusions of law, and determinations in Sections IV and V of this Settlement Agreement. Respondent agrees to comply with and be bound by the terms of this Settlement Agreement and further agrees that it will not contest the basis or validity of this Settlement Agreement or its terms.

## **II. PARTIES BOUND**

6. This Settlement Agreement applies to and is binding upon EPA and upon Respondent and its successors and assigns. Any change in ownership or corporate status of Respondent including but not limited to any transfer of assets or real or personal property shall not alter Respondent's responsibilities under this Settlement Agreement.

7. Respondent shall ensure that its contractors, subcontractors, and representatives receive a copy of this Settlement Agreement and comply with this Settlement Agreement. Respondent shall be responsible for any noncompliance with this Settlement Agreement.

## **III. DEFINITIONS**

8. Unless otherwise expressly provided herein, terms used in this Settlement Agreement which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

a. "Action Memorandum" shall mean the EPA Action Memorandum relating to the Site signed in November, 2006, by the Director, Superfund Division, EPA, Region 7, and all attachments thereto. The Action Memorandum is attached as Appendix B.

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. In computing any period of time under this Settlement Agreement where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.

d. "Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXXI.

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

f. "Future Response Costs" or "Oversight Costs" shall mean all costs including but not limited to direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement including but not limited to payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Paragraph 39 (costs and attorneys fees and any monies paid to secure access,

including the amount of just compensation), Paragraph 49 (emergency response), and Paragraph 73 (work takeover). Future Response Costs shall also include all Interim Response Costs.

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

h. "Interim Response Costs" shall mean all costs, including direct and indirect costs, (1) paid by the United States in connection with the Site between August 20, 2006 and the Effective Date, and (2) incurred prior to the Effective Date but paid after that date.

i. "MDNR" shall mean the Missouri Department of Natural Resources and any successor departments or agencies of the State.

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

k. "Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral.

l. "Parties" shall mean EPA and Respondent.

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

n. "Section" shall mean a portion of this Settlement Agreement identified by a Roman numeral.

o. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto. In the event of conflict between this Settlement Agreement and any provision of any other agreement, order, appendix, or writing, the terms and conditions of this Settlement Agreement shall control.

p. "Site" shall mean the Highway OO Lead Site, consisting of lead-contaminated material excavated from the shoulders of Missouri Highway OO by Missouri Department of Transportation and/or its contractor and deposited in various locations within Madison, St. Francois, and St. Genevieve Counties in Missouri, and adjacent areas contaminated with lead as a result of contact or mixture with the excavated Highway OO shoulder material. The Site includes but is not limited to the piles of lead-contaminated material deposited at the locations depicted generally on the map attached as Appendix C.

q. "Statement of Work" or "SOW" shall mean the Statement of Work for implementation of the removal action as set forth in Appendix A to this Settlement Agreement, and any modifications made thereto in accordance with this Settlement Agreement.

r. "Waste Material" shall mean any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and any "hazardous waste" under State or Federal law.

s. "Work" shall mean all activities Respondent is required to perform under this Settlement Agreement, including the SOW set forth in Appendix A.

#### **IV. EPA'S FINDINGS OF FACT**

9. Madison and St. Francois Counties are located in the Old Lead Belt area of Southeastern Missouri. The Old Lead Belt was the largest lead-producing region in the United States from 1907 to 1953.

10. Historic operations mined for lead, copper, cobalt, nickel, iron, zinc, silver, and pyrite, which left behind large tailings and chat piles ("mine waste"). The mine waste remains contaminated with lead and other heavy metals.

11. Mine waste has migrated from the piles through natural processes as well as mechanical transport to adjacent land, surface water, residential yards and driveways. Pursuant to CERCLA, EPA is in the process of stabilizing many of the mine waste piles in Madison and St. Francois Counties, and cleaning up residential yards contaminated with lead and other heavy metals.

12. Mine waste has been used as fill for roadbeds and for traction control in the winter. Many roads in southeastern Missouri were, and still are, used for hauling the ore and metals concentrates via truck. These practices have resulted in elevated levels of lead and other heavy metals in many road rights-of-way in Madison and St. Francois Counties.

13. Missouri Highways and Transportation Commission is a constitutionally-created commission, which is responsible for and supervises the construction, improvement, and

maintenance of all state highways and bridges in Missouri. Missouri Highways and Transportation Commission controls the Missouri Department of Transportation (“MoDOT”), which is a department of the executive branch of the government of the State of Missouri.

14. In spring 2006, MoDOT conducted shoulder work along Highway OO in Madison and St. Francois Counties. The work involved excavating material from the shoulders of the highway to allow for better drainage and to prepare for resurfacing.

15. MoDOT deposited the excavated material (“waste piles”) in various locations in Madison, St. Francois, and St. Genevieve Counties.

16. In June 2006, EPA sampled one of the waste piles located within 100 feet of a residential property. Field sampling indicated an average lead concentration of 1,859 parts per million (“ppm”). A second property was screened in July 2006. The waste piles at this property were also within 100 feet of a residence and the average lead concentration was 1,362 ppm. Homeowners at both locations indicated that they used a portion of the waste piles as fill in their yards.

17. Lead is a metal and a constituent of D008 hazardous waste. Lead is classified by the EPA as a probable human carcinogen and is a cumulative toxicant. The early effects of lead poisoning are nonspecific and difficult to distinguish from the symptoms of minor seasonal illnesses. Lead poisoning causes decreased physical fitness, fatigue, sleep disturbance, headache, aching bones and muscles, digestive symptoms (particularly constipation), abdominal cramping, nausea, vomiting, and decreased appetite. With increased exposure, symptoms include anemia, pallor, a “lead line” on the gums, and decreased handgrip strength. The central nervous system effects include severe headaches, convulsions, coma, delirium, and possibly death. The kidneys can also be damaged after long periods of exposure to lead, with the loss of kidney function and progressive azotemia. Reproductive effects in women include decreased fertility, increased rates of miscarriage and stillbirth, decreased birth weight, premature rupture of the membrane, and/or preterm delivery. A significant amount of lead that enters the body is stored in the bone for many years and can be considered an irreversible health effect. Children are particularly susceptible to the effects of lead.

## **V. EPA’S CONCLUSIONS OF LAW AND DETERMINATIONS**

18. Based on the Findings of Fact set forth above and the Administrative Record supporting this removal action, EPA has determined that:

a. The Highway OO Lead Site is a “facility” as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. The contamination found at the Site, as identified in the Findings of Fact above, includes “hazardous substances” as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. The Respondent is a “person” as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. The Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is liable for performance of response action and for response costs incurred and to be incurred at the Site.

e. The conditions at the Site constitute an actual or threatened “release” of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The actual or threatened release of hazardous substances from the Site may present an imminent and substantial endangerment to public health, welfare, or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a), and 40 C.F.R. § 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (“NCP”).

g. The removal action required by this Settlement Agreement is necessary to protect the public health, welfare, or the environment, and, if carried out in compliance with the terms of this Settlement Agreement, will be considered consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

## **VI. SETTLEMENT AGREEMENT AND ORDER**

19. Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby Ordered and Agreed that Respondent shall comply with all provisions of this Settlement Agreement including but not limited to all attachments to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

## **VII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR, AND ON-SCENE COORDINATOR**

20. Respondent shall retain one or more contractors to perform the Work and shall notify EPA of the name(s) and qualifications of such contractor(s) within ten (10) days of the Effective Date. Respondent shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least ten (10) days prior to commencement of such Work. EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by the Respondent. If EPA disapproves of a selected contractor, Respondent shall retain a different contractor and shall notify EPA of that contractor's name and qualifications within ten (10) days of EPA's disapproval.



21. Within ten (10) days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondent required by this Settlement Agreement and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within ten (10) days following EPA's disapproval. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Settlement Agreement shall constitute receipt by Respondent.

22. EPA has designated J. Heath Smith as its Project Coordinator. Except as otherwise provided in this Settlement Agreement, Respondent shall direct all submissions required by this Settlement Agreement by certified or registered mail to Mr. Smith at the United States Environmental Protection Agency, Region 7, 901 N. 5<sup>th</sup> Street, Kansas City, Kansas 66101, telephone (573) 783-4526, facsimile (573) 783-4539.

23. EPA and Respondent shall have the right, subject to Paragraph 21, to change their respective designated Project Coordinators. Respondent shall notify EPA five (5) days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notice.

#### **VIII. WORK TO BE PERFORMED**

24. Respondent shall perform, at a minimum, all actions necessary to implement the Statement of Work and Action Memorandum.

25. Work Plan and Implementation.

a. Within thirty (30) days after the Effective Date, Respondent shall submit to EPA for approval a Work Plan for performing the removal action in accordance with the attached SOW and Action Memorandum. The Work Plan shall provide a description of and an expeditious detailed schedule for the actions required by this Settlement Agreement.

b. Respondent shall implement the Work Plan as approved in writing by EPA in accordance with the schedule approved by EPA.

c. Respondent shall not commence any Work except in conformance with the terms of this Settlement Agreement. Respondent shall not commence implementation of the Work Plan developed hereunder until receiving written EPA approval.

26. Health and Safety Plan. Within thirty (30) days after the Effective Date, Respondent shall submit for EPA review and comment a plan that ensures the protection of the public health and safety during performance of on-site work under this Settlement Agreement. This plan shall be prepared in accordance with EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning. Respondent shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the pendency of the removal action.

27. Quality Assurance and Sampling.

a. As part of the Work Plan, Respondent shall submit to EPA for review and approval a Quality Assurance Project Plan ("QAPP") for all sampling and monitoring activities to be undertaken as part of this Settlement Agreement. The QAPP shall be prepared in accordance with the attached SOW, "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001), and "EPA Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/600/R-98/018, February 1998). All sampling and analyses performed pursuant to this Settlement Agreement shall conform to EPA direction, approval, and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation, and chain of custody procedures. Respondent shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance. Respondent shall follow, as appropriate, "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1, 1990), as guidance for QA/QC and sampling. Respondent shall only use laboratories that have a documented Quality System that complies with ANSI/ASQC E-4 1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), and "EPA Requirements for Quality Management Plans (QA/R-2) (EPA/240/B-01/002, March 2001)," or equivalent documentation as determined by EPA. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program ("NELAP") as meeting the Quality System requirements.

b. Upon request by EPA, Respondent shall have such a laboratory analyze samples submitted by EPA for QA monitoring. Respondent shall provide to EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

c. Upon request by EPA, Respondent shall allow EPA or its authorized representatives to take split and/or duplicate samples. Respondent shall notify EPA not less than fourteen (14) days in advance of any sample collection activity, unless shorter notice is agreed to by EPA. EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow Respondent to take split or duplicate samples of any samples it takes as part of its oversight of Respondent's implementation of the Work.

28. Post-Removal Site Control. Within thirty (30) days of completion of on-site construction, Respondent shall submit a Post-Removal Site Control Plan for EPA review and approval in accordance with the attached SOW, and consistent with Section 300.415(I) of the NCP and OSWER Directive No. 9360.2-02. Upon EPA approval, Respondent shall implement such controls and shall provide EPA with documentation of all post-removal site control arrangements.

29. Reporting.

a. Respondent shall submit monthly written progress reports to EPA concerning actions undertaken pursuant to this Settlement Agreement by the first day of every month beginning with the first full month after the date of receipt of EPA's approval of the Work Plan until submission of the Removal Action Report, unless otherwise directed in writing by EPA's Project Coordinator. These reports shall address the information required in the SOW.

b. Within thirty (30) days after completion of on-site construction, Respondent shall submit for review and approval a Removal Action Report in accordance with the attached SOW, summarizing the actions taken to comply with this Settlement Agreement. The Removal Action Report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports."

c. Respondent shall submit one paper copy of all plans, reports or other submissions required by this Settlement Agreement, the attached SOW, or any approved work plan to EPA's Project Coordinator, and one paper copy to Greg Bach, MDNR Hazardous Waste Program, P.O. Box 176, Jefferson City, Missouri 65102-0176. Respondent shall also submit electronic copies of databases and spreadsheets containing location information and/or analytical data.

30. Off-Site Shipments.

a. Respondent shall, prior to any off-site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to the Project Coordinator. However, this notification requirement shall not apply to any off-Site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

(1). Respondent shall include in the written notification the following information: (a) the name and location of the facility to which the Waste Material is to be shipped; (b) the type and quantity of the Waste Material to be shipped; (c) the expected schedule for the shipment of the Waste Material; and (d) the method of transportation. Respondent shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

(2). The identity of the receiving facility and state will be determined by Respondent following the award of the contract for the removal action. Respondent shall provide the information required by this Paragraph as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

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

### **IX. SUBMISSIONS REQUIRING EPA APPROVAL**

31. After review of any plan, report, or other item which is required to be submitted for approval pursuant to this Settlement Agreement, EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission with modifications; (c) disapprove, in whole or in part, the submission, directing Respondent to resubmit the document after incorporating EPA's

comments; (d) disapprove the submission and assume responsibility for performing all or any part of the response activities; or (e) any combination of the above.

32. 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.

33. Upon receipt of a notice of disapproval, Respondent shall, within thirty (30) days or such other time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other item for approval.

34. Notwithstanding the receipt of a notice of disapproval, Respondent shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission. Implementation of any non-deficient portion of a submission shall not relieve Respondent of any liability for stipulated penalties under Section XIX (Stipulated Penalties).

35. In the event that a resubmitted plan, report or other item, or portion thereof, is disapproved or modified by EPA due to a material defect, Respondent shall be deemed to have failed to submit such plan, report, or other item in a timely and adequate manner, unless Respondent invokes the procedures of Section XVII (Dispute Resolution), and EPA's action is overturned pursuant to that Section.

36. The provisions of Section XVII (Dispute Resolution) and Section XIX (Stipulated Penalties) shall govern the implementation of the Work, and accrual and payment of any stipulated penalties during dispute resolution. If EPA's disapproval is upheld, stipulated penalties shall accrue for such violation from the date on which the initial submission was required, as provided in Section XIX (Stipulated Penalties).

37. All plans, reports, and other items required to be submitted to EPA under this Settlement Agreement shall, upon approval by EPA, be enforceable under this Settlement Agreement. In the event EPA approves a portion of a plan, report, or other item required to be submitted to EPA under this Settlement Agreement, the approved portion shall be enforceable under this Settlement Agreement.

#### **X. SITE ACCESS**

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

39. Where any action under this Settlement Agreement is to be performed in areas owned by or in possession of someone other than Respondent, Respondent shall use its best efforts to obtain all necessary access agreements within thirty (30) days after the Effective Date, or as otherwise specified in writing by EPA's Project Coordinator. The access agreements shall also provide for access by EPA, the State, and their representatives, including contractors. Respondent shall immediately notify EPA if after using its best efforts is unable to obtain such agreements. For purposes of this Paragraph, "best efforts" is defined as an initial visit, a follow-up telephone call, and a certified letter from Respondent to the present owner of the property requesting an access agreement to permit Respondent and EPA, including its authorized representatives, access to the property to conduct the activities required under this Settlement Agreement. Respondent shall detail in a log its efforts to obtain access, including the time and dates of the initial visit, the telephone call, the date of the response by the property owner or the date EPA was notified of the property owner's failure to respond. EPA may then assist Respondent in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate. Respondent shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XVI (Payment of Response Costs).

40. Notwithstanding any provision of this Settlement Agreement, EPA retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

## **XI. ACCESS TO INFORMATION**

41. Respondent shall provide to EPA, upon request, copies of all documents and information within its possession or control or that of its contractors or agents relating to activities at the Site or to the implementation of this Settlement Agreement 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 who have knowledge of relevant facts concerning the performance of the Work.

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

43. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondent asserts such a privilege in lieu of providing documents, it shall provide EPA with the following: (a) the title of the document, record, or information; (b) the date of the document, record, or information; (c) the name and title of the author of the document, record, or information; (d) the name and title of each addressee and recipient; (e) a description of the contents of the document, record, or information; and (f) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

44. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

## **XII. RECORD RETENTION**

45. Until ten (10) years after Respondent's receipt of EPA's notification pursuant to Section XXIX (Notice of Completion of Work), Respondent shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until ten (10) years after Respondent's receipt of EPA's notification pursuant to Section XXIX (Notice of Completion of Work), Respondent shall also instruct its contractors and agents to preserve all documents, records, and information of whatever kind, nature, or description relating to performance of the Work.

46. At the conclusion of this document retention period, Respondent shall notify EPA at least ninety (90) days prior to the destruction of any such records or documents, and, upon request by EPA, Respondent shall deliver any such records or documents to EPA. Respondent may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege, it shall provide EPA with the following: (a) the title of the document, record, or information; (b) the date of the document, record, or information; (c) the name and title of the author of the document, record, or information; (d) the name and title of each addressee and recipient; (e) a description of the subject of the document, record, or information; and (f) the privilege asserted by Respondent. However, no documents, reports, or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

47. Respondent hereby certifies individually that to the best of its knowledge and belief after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any records, documents, or other information (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by EPA or the State or the filing of suit against it regarding the Site and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

## **XIII. COMPLIANCE WITH OTHER LAWS**

48. Respondent shall perform all actions required pursuant to this Settlement Agreement in accordance with all applicable local, state, and federal laws and regulations except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 6921(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-Site actions required pursuant to this Settlement Agreement shall, to the extent practicable as determined by EPA considering the exigencies of the situation, attain applicable or relevant and appropriate requirements ("ARARs") under federal environmental or state environmental or facility site-specific laws.

#### **XIV. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES**

49. In the event of any action or occurrence during performance of the Work which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action. Respondent shall take these actions in accordance with all applicable provisions of this Settlement Agreement including but not limited to the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondent shall also immediately notify the Project Coordinator or, in the event of his/her unavailability, the Regional Duty Officer, Emergency Planning and Response Branch, EPA Region 7, (913) 281-0991, of the incident or Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondent shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVI (Payment of Response Costs).

50. In addition, in the event of any release of a hazardous substance from the Site, Respondent shall immediately notify EPA's Project Coordinator at (573) 783-4526, and the National Response Center at (800) 424-8802. Respondent shall submit a written report to EPA within seven (7) days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to and not in lieu of reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, *et seq.*

#### **XV. AUTHORITY OF EPA'S PROJECT COORDINATOR**

51. EPA's Project Coordinator shall be responsible for overseeing Respondent's implementation of this Settlement Agreement. EPA's Project Coordinator shall have the authority vested in an On-Scene Coordinator (OSC) by the National Contingency Plan (NCP), including the authority to halt, conduct, or direct any Work required by this Settlement Agreement, or to direct any other removal action undertaken at the Site. Absence of EPA's Project Coordinator from the Site shall not be cause for stoppage of work unless specifically directed by EPA's Project Coordinator.



## **XVI. PAYMENT OF RESPONSE COSTS**

### **52. Payments for Future Response Costs.**

a. Respondent shall pay EPA all Future Response Costs, not to exceed a total of \$25,000, and not inconsistent with the NCP. On a periodic basis, EPA will send Respondent a bill requiring payment that includes an Itemized Cost Summary Report. Respondent shall make all payments within thirty (30) days of receipt of each bill requiring payment, except as otherwise provided in Paragraph 54 of this Settlement Agreement.

b. Respondent shall make all payments required by this Paragraph by check(s) made payable to "EPA Hazardous Substance Superfund," referencing the name and address of the party(ies) making payment and EPA Site/Spill ID number A7A5, and the EPA docket number for this action. Respondent shall send the check(s) to:

Mellon Bank  
Attn: Superfund Accounting  
EPA – Cincinnati Finance Office  
P.O. Box 371099M  
Pittsburgh, PA 15251.

c. At the time of payment, Respondent shall send notice that payment has been made to EPA's Project Coordinator, EPA Region 7, 901 N. 5<sup>th</sup> Street, Kansas City, Kansas 66101.

53. In the event that Future Response Costs are not made within thirty (30) days of Respondent's receipt of a bill, Respondent shall pay Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Section XIX.

54. Respondent may dispute all or part of a bill for Future Response Costs submitted under this Settlement Agreement if Respondent alleges that EPA has made an accounting error or if Respondent alleges that a cost item is inconsistent with the NCP. If any dispute over costs is resolved before payment is due, the amount due will be adjusted as necessary. If the dispute is not resolved before payment is due, Respondent shall pay the full amount of the uncontested costs to EPA as specified in Paragraph 52 on or before the due date. Within the same time period, Respondent shall pay the full amount of the contested costs into an interest-bearing escrow account. Respondent shall simultaneously transmit a copy of both checks to the persons listed in Paragraph 52(c) above. Respondent shall ensure that the prevailing party in the dispute shall receive the amount upon which they prevailed from the escrow funds plus interest within ten (10) days after the dispute is resolved.

## **XVII. DISPUTE RESOLUTION**

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

56. If Respondent objects to any EPA action taken pursuant to this Settlement Agreement, including billings for Future Response Costs, it shall notify EPA in writing of its objection(s) within ten (10) days of such action, unless the objection(s) has/have been resolved informally. EPA and Respondent shall have ten (10) days from EPA's receipt of Respondent's written objection(s) to resolve the dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA.

57. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by both parties, be incorporated into and become an enforceable part of this Settlement Agreement. If the Parties are unable to reach an agreement within the Negotiation Period, EPA Region 7's Regional Judicial Officer will issue a written decision on the dispute to Respondent. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Respondent's obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondent shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs.

## **XVIII. FORCE MAJEURE**

58. Respondent agrees to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure*. For purposes of this Settlement Agreement, a *force majeure* is defined as any event arising from causes beyond the control of Respondent or of any entity controlled by Respondent including but not limited to its contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement despite Respondent's best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work, increased cost of performance, or a failure to attain performance standards set forth in the Action Memorandum.

59. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondent shall immediately notify EPA orally when Respondent first knows that the event might cause a delay. Within five (5) days thereafter, Respondent shall provide to EPA a written explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to

be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondent's rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health, welfare, or the environment. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

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

#### **XIX. STIPULATED PENALTIES**

61. Respondent shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 62 and 63 for failure to comply with the requirements of this Settlement Agreement specified below, unless excused under Section XVIII (*Force Majeure*). "Compliance" by Respondent shall include completion of the activities under this Settlement Agreement or any work plan or other plan approved under this Settlement Agreement identified below in accordance with all applicable requirements of law, this Settlement Agreement, the attached SOW, and any plans or other documents approved by EPA pursuant to this Settlement Agreement and within the specified time schedules established by and approved under this Settlement Agreement.

#### 62. Stipulated Penalty Amounts – Work and Major Deliverables.

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraph 62(b):

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,000	1st through 14th day
\$2,000	15th through 30th day
\$3,000	31st day and beyond

b. Compliance Milestones:

- (1) Failure to submit the Work Plan in a timely or adequate manner,
- (2) Failure to submit the QAPP or HASP in a timely or adequate manner,
- (3) Failure to submit the Post-Removal Site Control Plan in a timely or adequate manner, and
- (4) Failure to submit the Removal Action Report in a timely or adequate manner.

63. Stipulated Penalty Amounts – Monthly Progress Reports and Other Noncompliance.

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

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

b. Compliance Milestones

- (1) Failure to submit a written Monthly Written Progress Report in a timely or adequate manner.
- (2) Any other violation of this Settlement Agreement other than those milestones identified in Paragraphs 62(b) and 63(b)(1).

64. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue (a) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondent of any deficiency; and (b) with respect to a decision by the EPA Region 7 Regional Judicial Officer, under Paragraph 57 of Section XVII (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA management official issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

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

66. All penalties accruing under this Section shall be due and payable to EPA within thirty (30) days of Respondent's receipt from EPA of a demand for payment of the penalties, unless Respondent invokes the dispute resolution procedures under Section XVII (Dispute Resolution). All payments to EPA under this Section shall be paid by check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to Mellon Bank, EPA – Cincinnati Finance Office, P.O. Box 371099M, Pittsburgh, PA 15251, shall indicate that the payment is for stipulated penalties, and shall reference the EPA Region and Site/Spill ID Number A7A5, the EPA Docket Number, and the name and address of the party(ies) making payment. Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s), shall be sent to EPA as provided in Paragraph 22.

67. The payment of penalties shall not alter in any way Respondent's obligation to complete performance of the Work required under this Settlement Agreement.

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

69. If Respondent fails to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties as well as Interest. Respondent shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 66. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this Settlement Agreement or of the statutes and regulations upon which it is based including but not limited to penalties pursuant to Sections 106(b) and 122(I) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(I), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 106(b) or 122(I) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Settlement Agreement. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

## **XX. COVENANT NOT TO SUE BY EPA**

70. In consideration of the actions that will be performed and the payments that will be made by Respondent under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, EPA covenants not to sue or to take administrative action against Respondent pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work and costs paid by Respondent pursuant to Section XVI. This covenant not to sue is conditioned upon the complete and satisfactory performance by Respondent of its obligations under this Settlement Agreement including but not limited to

payment of Response Costs pursuant to Section XVI. This covenant not to sue extends only to Respondent and does not extend to any other person.

## **XXI. RESERVATIONS OF RIGHTS BY EPA**

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

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

- a. claims based on a failure by Respondent to meet a requirement of this Settlement Agreement;
- b. liability for costs not included within the definitions of Past and Future Response Costs;
- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and
- g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

73. Work Takeover. In the event EPA determines that Respondent has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. Respondent may invoke the procedures set

forth in Section XVII (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by the United States in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Respondent shall pay pursuant to Section XVI (Payment of Response Costs). Notwithstanding any other provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

## **XXII. COVENANT NOT TO SUE BY RESPONDENT**

74. Respondent covenants not to sue and agrees not to assert any claims or causes of action against the United States or its contractors or employees with respect to the Work, Future Response Costs, or this Settlement Agreement, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the Missouri Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Site.

These covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 72 (b), (c), and (e-g), but only to the extent that Respondent's claim arises from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

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

## **XXIII. OTHER CLAIMS**

76. By issuance of this Settlement Agreement, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Settlement Agreement.

77. Except as expressly provided in Section XX (Covenant Not to Sue by EPA), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

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

#### **XXIV. CONTRIBUTION**

79. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and that Respondent is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work and costs paid by Respondent pursuant to Section XVI.

80. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), pursuant to which Respondent has, as of the Effective Date, resolved its liability to the United States for the Work and costs paid by Respondent pursuant to Section XVI.

81. Nothing in this Settlement Agreement precludes the United States or Respondent from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not parties to this Settlement Agreement. Nothing herein diminishes the right of the United States, pursuant to Sections 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2) and (3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection under Section 113(f)(2).

#### **XXV. INDEMNIFICATION**

82. Respondent shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from or on account of negligent or other wrongful acts or omissions of Respondent, its officers, directors, or employees, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondent agrees to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondent, its officers, directors, or employees, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a



party to any contract entered into by or on behalf of Respondent in carrying out activities pursuant to this Settlement Agreement. Neither Respondent nor any such contractor shall be considered an agent of the United States.

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

## **XXVI. INSURANCE**

84. At least seven (7) days prior to commencing any on-Site work under this Settlement Agreement, Respondent shall provide EPA with a certified record demonstrating that it is self-insured. Respondent shall ensure that its contractors or subcontractors maintain for the duration of this Settlement Agreement, comprehensive general liability insurance and automobile insurance with limits of one million dollars, combined single limit, and at least seven (7) days prior to commencing any on-Site work under this Settlement Agreement, shall provide EPA with certificates of such insurance and a copy of each insurance policy. In addition, for the duration of the Settlement Agreement, Respondent shall satisfy or shall ensure that its contractors or subcontractors satisfy all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondent in furtherance of this Settlement Agreement.

## **XXVII. MODIFICATIONS**

85. This Settlement Agreement may be modified by mutual agreement of Respondent and EPA. Except as provided in Paragraph 86 below, any such modification shall be in writing and shall be signed by authorized representatives of Respondent and EPA. Unless otherwise provided for in the modification, the effective date of any such modification shall be the date on which the written agreement or modification is signed by EPA after signature by the Respondent. All modifications shall be incorporated into and become a part of this Settlement Agreement.

86. The SOW, the Work Plan, and the schedule for deliverables under this Settlement Agreement may be modified by mutual written consent of the Project Coordinators for EPA and Respondent. If Respondent seeks permission to deviate from the SOW, Work Plan, or any schedules, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving written approval from EPA's Project Coordinator.

87. No informal advice, guidance, suggestion, or comment by EPA's Project Coordinator or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Settlement Agreement or to comply with all requirements of this Settlement Agreement unless it is formally modified.

## **XXVIII. ADDITIONAL WORK**

88. If EPA determines that additional work not included in an approved plan are necessary to meet the objectives set forth in Section I (Jurisdiction and General Provisions) of this Settlement Agreement, EPA will notify Respondent of that determination. The scope and substance of the Removal Action to be performed by Respondent is set forth in Section VIII of this Settlement Agreement, the attached SOW, and Action Memorandum. Respondent shall confirm its willingness to perform the additional work in writing to EPA within fifteen (15) days of receipt of the EPA notice or Respondent shall invoke the dispute resolution provisions of Section XVII of this Settlement Agreement. Subject to EPA resolution of any dispute, Respondent shall implement the additional tasks which EPA determines are necessary. Unless otherwise stated by EPA or unless Respondent invokes dispute resolution within thirty (30) days of receipt of notice from EPA that additional work is necessary to protect public health, welfare, or the environment, Respondent shall submit for approval by EPA a Work Plan for the additional work. The plan shall conform to the applicable requirements of Section VIII (Work To Be Performed) of this Settlement Agreement. Upon EPA's approval of the plan pursuant to Section IX, Respondent shall implement the plan for additional work in accordance with the provisions and schedule contained therein.

## **XXIX. NOTICE OF COMPLETION OF WORK**

89. When EPA determines, after EPA's review of the Removal Action Report, that all Work has been fully performed in accordance with this Settlement Agreement with the exception of any continuing obligations required by this Settlement Agreement including post-removal site control, payment of Future Response Costs, and record retention, EPA will provide written notice to Respondent. If EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the Work Plan if appropriate in order to correct such deficiencies. Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure by Respondent to implement the approved modified Work Plan shall be a violation of this Settlement Agreement.

## **XXX. SEVERABILITY/INTEGRATION**

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

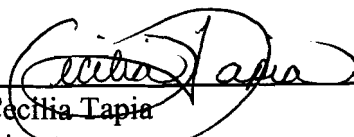
91. This Settlement Agreement and its appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations,

agreements, or understandings relating to the settlement other than those expressly contained in this Settlement Agreement.

**XXXI. EFFECTIVE DATE**

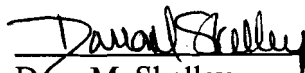
92. This Settlement Agreement shall become effective upon receipt by Respondent of a fully executed and file-stamped copy of this Settlement Agreement as shown by the date on the certified mail receipt.

IT IS SO ORDERED

  
\_\_\_\_\_  
Cecilia Tapia  
Director  
Superfund Division  
Region 7  
U.S. Environmental Protection Agency

Date: 12/8/06

For the United States Environmental Protection Agency

  
\_\_\_\_\_  
Dana M. Skelley  
Assistant Regional Counsel  
Region 7  
U.S. Environmental Protection Agency

Date: 12/6/06

In the Matter of Highway OO Lead Site

The undersigned representative of Respondent certifies that he is fully authorized to enter into the terms and conditions of this Settlement Agreement and to bind the Respondent, Missouri Highways and Transportation Commission, which he represents, to the terms of this document.

FOR THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION:

*Kevin Keith*  
Name: **Kevin Keith**  
Title: **Chief Engineer**

Date: 11/29/06

ATTEST: [Seal]

*Mari Ann Winters*  
Name: **Mari Ann Winters**  
Title: **Commission Secretary**

Approved as to Form:

*Gregory W. Schroeder*  
Name: **Gregory W. Schroeder**  
Title: **Senior Administrative Counsel**

Date: November 27, 2006

## APPENDIX A

### Statement of Work Highway OO Lead Site

#### **REMOVAL ACTION**

##### I. Purpose

This Removal Action Statement of Work (“SOW”) sets forth removal action requirements for the Highway OO Lead Site (“Site”). This SOW is an appendix to and is incorporated as part of the Administrative Settlement Agreement and Order on Consent (“Settlement Agreement”).

The Respondent shall conduct a removal action on the Site to remove and properly dispose of lead-contaminated material excavated as part of the Highway OO shoulder renovation project, and adjacent soils contaminated with lead as a result of contact or mixture with the excavated Highway OO shoulder material, from current locations on private and public lands, where it may be currently posing a threat to human health and the environment. This document will also serve as a guide for future Missouri Department of Transportation (“MoDOT”) projects in which it is anticipated that potentially lead-contaminated material will be excavated or disturbed.

The removal action shall comply with and be conducted in accordance with this SOW, the Settlement Agreement, and the Action Memorandum for the Site issued by EPA, Region VII in November, 2006, which is attached as Appendix B to the Settlement Agreement. Following completion of construction of the removal action, Respondent shall ensure that all post-removal actions needed to ensure the continued long-term integrity and effectiveness of the completed removal action as constructed by Respondent and approved by EPA are performed.

##### II. Work Plan

Within 30 days of the Effective Date of the Settlement Agreement, Respondent shall prepare and submit for EPA review and approval a Work Plan that describes the soil characterization, removal, and disposal activities, and a schedule for completion of those activities. The Work Plan shall address the following objectives and tasks of the removal action:

###### A. Management Chapter

A clear and concise description of the roles, relationships, and assignment of responsibilities among the Project Coordinator, Quality Assurance Officer, Construction Supervisor, and Construction Personnel.

B. Construction Chapter

1. The location of all waste piles generated during the Highway OO shoulder renovation project shall be documented, including latitude/longitude locational data. The physical setting shall be described as well as the proximity to populated areas (i.e., distance to nearest residential property). Any usage, movement, or spreading of the piles by the property owner shall be documented.
2. Waste piles in all locations identified above shall be analyzed for total lead. The waste piles shall also be analyzed to determine whether they may be characteristic hazardous waste using the Toxicity Characteristic Leaching Procedure ("TCLP"). The sampling shall be conducted in accordance with the Quality Assurance Project Plan ("QAPP"), Field Sampling Plan ("FSP"), and Health and Safety Plan ("HASP").
3. Waste piles, waste spread around or relocated from the piles, and adjacent soils in contact with or mixed with the waste piles, exceeding 400 parts per million ("ppm") total lead, or 5 mg/L TCLP lead shall be removed. Priority for soil removal shall be given to any pile with an adjacent residence where a child under 72 months of age resides.
4. Waste piles and adjacent soils removed which exceed TCLP lead of 5 mg/L shall be stabilized, treated, and reanalyzed. The process of TCLP analysis and stabilization/treatment shall be repeated until TCLP lead results indicate concentrations less than 5 mg/L.
5. All data shall be provided to EPA in both paper copy and in a Geographical Information System (GIS) format.
6. Disposal options include:
  - a. Treatment, if necessary, and disposal of the lead-contaminated material at a remediation waste management site designated pursuant to 40 C.F.R. Part 270, Subpart H.
  - b. Disposal of the material in a Subtitle C or D landfill, as applicable.
7. Respondent shall handle the waste material in a manner so that no prolonged and significant emissions of dust are present at the Site. Dust control shall be maintained by wetting dry or dusty waste materials or contaminated soils during handling to minimize

airborne dust. If, through inspection or otherwise, EPA determines that visible emissions of dust are present, EPA may modify this Work Plan to require the use of air monitoring equipment. If such monitoring indicates total suspended lead particulates exceed permissible exposure limits established by OSHA, removal and disposal activities shall cease until lead dust emissions are controlled and the suspended lead particulates meet exposure limits.

8. Respondent shall include provisions for run-on and run-off controls during construction, including location, frequency, and methods for collecting water samples which will ensure compliance with NPDES or other water quality standards.
9. Respondent shall include provisions addressing spill prevention and management.
10. Heavy equipment and operators for the project shall be described, along with the decontamination procedures for heavy equipment.
11. Respondent shall identify the method of transportation for any contaminated materials to be removed from the Site, manifesting requirements in accordance with federal and state Departments of Transportation requirements, and material quantity accounting procedures.
12. A description of how the removal action will comply with Applicable or Relevant and Appropriate Requirements (“ARARs”) and meet substantive permitting requirements. All removal and disposal activities shall conform to local, state, and federal requirements.
13. All sampling and soil excavation and disposal activities will be conducted consistent with applicable portions of EPA’s “Superfund Lead Contaminated Residential Sites Handbook,” OSWER 9285.7-50, August 2003.

**C. Quality Assurance Project Plan (“QAPP”) and Field Sampling Plan (“FSP”) Chapter**

1. A Quality Assurance Project Plan (“QAPP”) shall be developed for all chemical analysis. Chemical analysis shall be conducted for at least the following activities:

- a. Analysis to document lead concentrations in waste piles disposed on private and public land during the Highway OO shoulder renovation project.
  - b. Analysis to document potential usage of waste piles by homeowners.
  - c. TCLP analysis to determine whether or not the waste is to be considered a hazardous waste requiring stabilization/treatment prior to disposal.
  - d. Analysis to confirm complete removal of contaminated material from private or public lands.
  - e. Analysis of cover soils to ensure they meet maximum lead concentration specifications.
2. The QAPP shall describe the processes for obtaining analytical data of sufficient quality and quantity in order to characterize the waste piles and to allow EPA to evaluate if removal objectives have been met. The QAPP shall generally follow EPA's guidance, "EPA Requirements for Quality Management Plans (QA/R-2) EPA/240/B-01/002 March 2001" (<http://www.epa.gov/quality1/qs-docs/r2-final.pdf>). The QAPP shall also:
- a. Describe the approximate number, type, and location of samples and the types of analyses to be performed, and supporting rationales.
  - b. Include provisions for providing split samples to EPA, if and as requested by EPA.
  - c. Identify any laboratories which may be used for the analysis of the samples collected, the methods of sample collection and compositing, the analytical methods to be used, and detection limits for all analytes in all media sampled.
  - d. Include provisions for the collection and analysis of trip and/or field blank and duplicate samples and other aspects of quality assurance/quality control ("QA/QC").
3. The QAPP shall provide that all sample collection and analysis be performed in accordance with approved EPA methods where available, including the timing of sample extraction and analysis, and documentation of sample collection, handling, and analysis. Any proposed sampling scheme shall be capable of producing statistically



valid data and will generally conform to the following EPA guidance documents:

- a. EPA SOP 2012 Soil Sampling (<http://www.ert.org/products/2012.pdf>).
  - b. EPA SOP 2017 Waste Pile Sampling (<http://www.ert.org/products/2017.PDF>).
  - c. EPA Requirements for Quality Management Plans (QA/R-2) March 2001 (<http://www.epa.gov/quality1/qs-docs/r2-final.pdf>).
  - d. Removal Program Representative Sampling Guidance, Volume 1: Soil - Office of Emergency and Remedial Response, Publication 540/R-95/141, December, 1995 (<http://www.ert.org/products/SOIL-PT1.PDF>).
  - e. Superfund Lead-Contaminated Residential Sites Handbook (<http://www.epa.gov/superfund/programs/lead/products/handbook.pdf>).
4. Respondent shall prove, in advance, to EPA's satisfaction that each laboratory it uses is qualified to conduct the proposed work. The laboratory shall have and follow a quality assurance program.

### III. Health and Safety Plan ("HASP")

Within 30 days of the Effective Date of the Settlement Agreement, Respondent shall submit for EPA review and comment a HASP. The HASP shall meet or exceed the requirements of the Occupational Safety and Health Administration ("OSHA") and be prepared in accordance with 29 C.F.R. § 1910.120. The HASP will include at a minimum the following elements:

- A. Assessment of chemical and physical hazards at all relevant locations.
- B. Identification of Site control measures and required levels of protection and safety equipment.
- C. Field monitoring requirements.
- D. Equipment and personnel decontamination and residual management.
- E. Training and medical monitoring requirements.
- F. Emergency planning and emergency contacts.

#### IV. Post Removal Site Control Plan

Within 30 days of completion of on-site construction, Respondent shall submit for EPA review and approval a Post Removal Site Control Plan which provides for all inspection, operation, and maintenance measures necessary to ensure that lead-contaminated materials used as deep fill in road construction projects remain stabilized. Where materials are not covered by asphalt or concrete, the Plan shall provide for measures to ensure establishment of self-sustaining, self-regenerating, effective and permanent vegetative cover capable of stabilizing the soil surface from erosion. The Plan shall provide for inspection procedures to ensure that these areas meet these objectives. Upon approval by EPA, Respondent shall implement the Post Removal Site Control Plan.

#### V. Reporting

##### A. Monthly Progress Reports

Respondent shall submit monthly written progress reports to EPA concerning actions undertaken pursuant to the Settlement Agreement during the previous month. Monthly Progress Reports shall be submitted by the first day of every month beginning with the first full month after the date of receipt of EPA's approval of the Work Plan until submission of the Removal Action Report, unless otherwise directed in writing by EPA. These reports shall describe all significant developments during the preceding month including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

##### B. Removal Action Report

Within 30 days of completion of on-site construction, Respondent shall submit to EPA for review and approval a Removal Action Report. This Report shall serve as documentation of activities associated with the origination, characterization, and final disposition of materials. The Removal Action Report shall include:

1. Location, characterization and final disposition of piles including locational data (latitude/longitude).
2. Volume estimates.
3. Detailed site sketches.
4. Property owner name and contact information.
5. Copies of all access agreements.

6. Analytical data summaries.
7. Summaries of waste treatment and stabilization.
8. Copies of all relevant documentation generated during the removal action such as manifests, invoices, bills, contracts, and permits.
9. Good-faith estimate of total costs or a statement of actual costs incurred in complying with the Settlement Agreement.
10. The following certification signed by a person who supervised or directed the preparation of the Report:

“Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved with the preparation of this report, the information submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

**ENFORCEMENT ACTION MEMORANDUM**

SUBJECT: Request for Time-Critical Removal Action at the Highway OO Lead Site, Madison, St. Francois, and Ste. Genevieve Counties, Missouri

FROM: Heath Smith, On-Scene Coordinator *for Roh*  
Enforcement/Fund-Lead Removal Branch

THRU: Kenneth S. Buchholz, Branch Chief *for Roh*  
Enforcement/Fund-Lead Removal Branch

TO: Cecilia Tapia, Director  
Superfund Division

CERCLIS ID #: MON000705438  
Site ID#: A7A5  
Category of Removal: Time-Critical  
Nationally Significant/Precedent Setting: No

I. PURPOSE

The purpose of this Enforcement Action Memorandum (Action Memo) is to request approval for a Potentially Responsible Party (PRP) time-critical removal of lead-contaminated soils associated with the Highway OO Lead site (Site). The Site is a conglomeration of waste piles in the counties of Madison, St. Francois, and Ste. Genevieve in southeast Missouri. The primary objective of this action is to eliminate exposures to lead-bearing waste that is present at the Site. There are no significant or precedent-setting issues associated with this response action. The proposed work in this Action Memo will be performed at the expense of the responsible party.



## II. SITE CONDITIONS AND BACKGROUND

### A. Site Description

#### 1. Background

Madison and St. Francois Counties are located in the Old Lead Belt area of southeastern Missouri. The Old Lead Belt was the largest lead-producing region in the United States from 1907 to 1953. Historic operations mined for lead, copper, cobalt, nickel, iron, zinc, silver, and pyrite, leaving behind large tailings and chat piles (mine waste) contaminated with lead and other heavy metals.

Mine waste has migrated from the piles through natural processes as well as mechanical transport to adjacent land, surface water, residential yards and driveways. Pursuant to the Comprehensive Environmental Response, Compensation, and Liabilities Act of 1980 (CERCLA), the Environmental Protection Agency (EPA) is in the process of stabilizing many of the mine waste piles in Madison and St. Francois Counties, and cleaning up residential yards contaminated with lead and other heavy metals.

Mine waste has been used as fill for roadbeds and for traction control in the winter. Many roads in southeastern Missouri continue to be used for hauling the ore and metals concentrates via truck. These practices have resulted in elevated levels of lead and other heavy metals in many road rights-of-way in Madison and St. Francois Counties.

The Missouri Highways and Transportation Commission is a constitutionally-created commission, which is responsible for and supervises the construction, improvement, and maintenance of all state highways and bridges in Missouri. The Missouri Highways and Transportation Commission controls the Missouri Department of Transportation (MoDOT), which is a department of the executive branch of the state of Missouri.

In spring 2006, MoDOT conducted shoulder work along Highway OO in Madison and St. Francois Counties. The work involved excavating material from the shoulders of the highway to allow for better drainage and to prepare for resurfacing. MoDOT deposited the excavated material (waste piles) in various locations in Madison, St. Francois, and Ste. Genevieve Counties.

In June 2006, EPA sampled one of the waste piles located within 100 feet of a residential property. Sampling with a Field Portable X-Ray Fluorescent Spectrometer (FPXRF) revealed an average lead concentration of 1,859 parts per million (ppm). A second property was sampled with a FPXRF in July 2006. The waste piles at this property were also within 100 feet of a residence and the average lead concentration was 1,362 ppm. Homeowners at both locations indicated they used a portion of the waste piles as fill in their yards.

2. Physical Location

The Site is comprised of those locations where waste piles were deposited on private and public lands. At least fourteen locations have been documented in Madison, St. Francois, and Ste. Genevieve Counties in Missouri. See attached map.

3. Site Characteristics

The waste piles were deposited on private and public lands, some within 100 feet of a residence, where they may currently be posing threats to human health and the environment. The piles consist of approximately two to thirty tandem truck loads of material, which are exposed to the weather and are accessible to wind and water transport. Access to the waste piles is largely unrestricted. It is not known to what extent the piles may have been utilized by current property owners, although some property owners have indicated they moved or spread the material over a larger area.

4. Release or Threatened Release into the Environment of a Hazardous Substance or Pollutant or Contaminant

The primary contaminants of concern at the Site are lead and lead compounds. The EPA has documented total lead concentrations in waste piles at two residential properties exceeding 1,200 milligrams per kilogram (mg/kg), and it is expected that the waste piles in other locations will also contain elevated levels of lead. Some of these locations are near residences, where children may reside. Lead and lead compounds are hazardous substances (as defined by Section 101(14) of CERCLA, and listed at 40 C.F.R. § 302.4) and have been detected in the soils at the Site.

5. National Priorities List (NPL) Status

The Highway OO Lead Site is not currently listed, nor proposed for listing on the NPL.

6. Supporting Documentation

A map generally depicting the known locations of waste piles is attached. All reports of investigations, sampling and analysis, and other relevant documents regarding the contamination at the Site will be contained in the Site's Administrative Record.

B. Other Actions to Date

1. Previous Actions

There have been no previous EPA response actions at this Site to address the risks posed by lead contamination from these waste piles.

2. Current Action

There are no other current response actions being conducted by EPA with respect to the Site.

C. State and Local Actions to Date

1. State and Local Actions to Date

There have been no state or local actions to date.

2. Potential for State/Local Response

The EPA has discussed with the Missouri Highways and Transportation Commission its role in responding. There are no other state or local entities prepared to respond.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Section 300.415(b) of the National Contingency Plan (NCP) provides that the EPA may conduct a removal action when it determines there is a threat to human health or the environment based on one or more of the eight factors listed in Section 300.415(b)(2). The factors that justify a removal action at this Site are outlined below.

A. Threats to Public Health or Welfare

1. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, or pollutants, or contaminants. [40 C.F.R. § 300.415(b)(2)(i)]

Elevated concentrations (greater than 1,200 ppm) of lead have been found in the waste piles deposited in residential yards at the Site. Specifically, field screening with a FPXRF has indicated lead levels of 1,859 and 1,362 ppm in two separate waste piles located on residential properties at the Site.

Lead is a metal and a constituent of D008 hazardous waste. Lead is classified by the EPA as a probable human carcinogen and is a cumulative toxicant. The early effects of lead poisoning

are nonspecific and difficult to distinguish from the symptoms of minor seasonal illnesses. Lead poisoning causes decreased physical fitness, fatigue, sleep disturbance, headache, aching bones and muscles, digestive symptoms (particularly constipation), abdominal cramping, nausea, vomiting, and decreased appetite. With increased exposure, symptoms include anemia, pallor, a lead line on the gums, and decreased handgrip strength. The central nervous system effects include severe headaches, convulsions, coma, delirium, and possibly death. The kidneys can also be damaged after long periods of exposure to lead, with the loss of kidney function and progressive azotemia. Reproductive effects in women include decreased fertility, increased rates of miscarriage and stillbirth, decreased birth weight, premature rupture of the membrane, and/or preterm delivery. A significant amount of lead that enters the body is stored in the bone for many years and can be considered an irreversible health effect.

Children are more vulnerable to lead poisoning than adults. For children, lead can damage the central nervous system, kidneys and reproductive system. At higher levels, it can cause comas, convulsions and death. Even low levels of lead are harmful and are associated with decreased intelligence, impaired neurobehavioral development, decreased stature and growth, impaired hearing acuity, and possibly high blood pressure.

2. High levels of hazardous substances or pollutants or contaminants in soil largely at, or near, the surface that may migrate. [40 C.F.R. § 300.415(b)(2)(iv)]

Lead has been detected in the waste piles on residential properties at the Site above levels of concern. The contaminated material may migrate via airborne dusts, surface runoff, percolation into groundwater, mechanical transport, and by children and pets transporting soil/dust into their homes from the affected areas.

3. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released. [40 C.F.R. § 300.415(b)(2)(v)]

Weather conditions may cause the lead-contaminated material to migrate. High wind could cause the lead-contaminated material to migrate via airborne dust. Surface runoff from precipitation may cause the lead-contaminated material to migrate off-site.

#### IV. ENDANGERMENT DETERMINATION

The actual release of a hazardous substance at this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to the health of the public that comes in contact with the waste piles (or material originating from the waste piles) located at the Site, and to public welfare and the environment. Federal and state agencies are recommending that immediate response actions be taken to reduce potential exposure.



## V. PROPOSED ACTIONS AND ESTIMATED COST

### A. Proposed Actions

#### 1. Proposed Action Description

A removal action will be conducted at the Site to assess, remove, treat if necessary, and properly dispose of lead-contaminated material excavated as part of the Highway OO shoulder work by MoDOT, and adjacent soils contaminated with lead as a result of contact or mixture with the excavated Highway OO shoulder material, from current locations on private and public lands where it may pose a threat to human health and the environment.

a. The location of all waste piles generated during the Highway OO shoulder renovation project will be documented, including latitude/longitude locational data. The physical setting will be described as well as the proximity to populated areas (i.e., distance to nearest residential property). Any usage, movement, or spreading of the piles by the property owner will be documented.

b. Waste piles in all locations identified above will be analyzed for total lead. The waste piles will also be analyzed to determine whether they may be characteristic hazardous waste using the Toxicity Characteristic Leaching Procedure (TCLP). The sampling will be conducted in accordance with a Quality Assurance Project Plan, Field Sampling Plan, and Health and Safety Plan developed for these activities.

c. Waste piles, waste spread around or relocated from the piles, and adjacent soils in contact with or mixed with the waste piles, exceeding 400 ppm total lead, or 5 micrograms per liter (mg/L) TCLP lead will be removed. Priority for soil removal will be given to any pile with an adjacent residence where a child under 72 months of age resides.

d. Waste piles and adjacent soils removed which exceed TCLP lead of 5 mg/L will be stabilized, treated, and reanalyzed. The process of TCLP analysis and stabilization/treatment will be repeated until TCLP lead results indicate concentrations less than 5 mg/L.

e. Excavated waste will be disposed at an off-site location to be determined later in accordance with all applicable requirements.

f. All sampling and soil excavation and disposal activities will be conducted consistent with applicable portions of EPA's Superfund Lead Contaminated Residential Sites Handbook, Office of Solid Waste and Emergency Response publication number 9285.7-50, August 2003.

2. Contribution to Remedial Performance

The removal actions described in this Action Memorandum will be consistent with any future remedial actions that may be taken at this Site.

3. Applicable or Relevant and Appropriate State Requirements (ARARs)

Section 300.415(i) of the National Contingency Plan provides that removal actions under Section 104 of CERCLA shall, to the extent practical considering the exigencies of the situation, attain ARARs under federal environmental or facility-siting laws. The following specific ARARs have been identified for this action:

- a. Subtitle D, Sections 1008 and 4001, et seq. of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6907 and 6941, et seq., state or Regional Solid Waste Plans, and implementing federal and state regulations. All excavated soil disposed in a sanitary landfill will comply with Subtitle D requirements. If other disposal alternatives are used, Subtitle D of RCRA may be applicable or relevant and appropriate.
- b. Occupational Safety and Health Act, 29 C.F.R. Part 1910.
- c. Subtitle C, Section 1002, et seq. of RCRA, 42 U.S.C. § 6901, et seq., 40 C.F.R. Part 260, et seq., and implementing federal and state regulations for contaminated soil that exhibit the characteristic of toxicity and are considered RCRA hazardous waste.

Subtitle C of RCRA is potentially applicable for the removal of soil contaminated with lead from smelter emissions fallout or lead of unknown origin. However, solid waste or soil contaminated with solid waste from the extraction, beneficiation, or the processing of ores is exempt from the requirements of RCRA, Subtitle C pursuant to the Beville Amendment, Section 3001(b)(3)(A) of RCRA, 42 U.S.C. § 6921(b)(3)(A), and implementing regulations at 40 C.F.R. § 261.4(b)(7).

- d. Department of Transportation (DOT) regulations at 49 C.F.R. Parts 107, 171-177, may be relevant and appropriate for transportation of the contaminated soil to the disposal location.
- e. National Pollution Discharge Elimination System storm water discharge regulations at 40 C.F.R. Part 122, may be relevant and

appropriate for management of storm water runoff from a repository.

The EPA has requested potential state ARARs. When received, these ARARs will be evaluated per the EPA guidance on consideration of ARARs during removal actions.

4. Project Schedule

Response activities are anticipated to take approximately three to six months to complete.

5. Post-Removal Site Controls

If necessary to ensure the effectiveness and integrity of the removal action after completion, and if not covered by other applicable permits or requirements, post-removal site controls will be implemented. Post-removal site controls may consist of providing amendments to ensure that the lead-contaminated material and cover material remains in place.

B. Estimated Costs:

Missouri Highways and Transportation Commission will implement and complete the proposed work described in this Enforcement Action Memorandum pursuant to an Administrative Settlement Agreement and Order on Consent and a Statement of Work. The costs associated with this removal action are estimated to be approximately \$400,488. The extramural costs outlined below will cover EPA expenses that are incurred while overseeing the responsible party.

Extramural Costs:

Removal Costs	\$21,000
Contingency	<u>4,000</u>
Removal Ceiling	\$25,000

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Conditions at this Site will continue to pose a threat to public health and the environment should response actions be delayed or not taken.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

Missouri Highways and Transportation Commission has agreed to perform this removal action pursuant to an Administrative Settlement and Order on Consent.

Intramural Costs:

EPA Direct	\$ 5,000
EPA Indirect Costs (50.69% of all costs)	<u>15,308</u>
Subtotal Intramural Costs	\$20,308
Total Project Costs	\$45,508


*Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.*

IX. RECOMMENDATION

This decision document represents the selected removal action for the Highway OO Lead Site, Madison, St. Francois, Ste. Genevieve Counties, Missouri. The removal action was developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP.

Conditions at the Highway OO Lead Site meet NCP Section 300.415(b) criteria for a removal action and I recommend your approval of the proposed PRP-lead removal action. The removal project ceiling will be \$25,000. This amount comes from the Regional Removal Allowance.

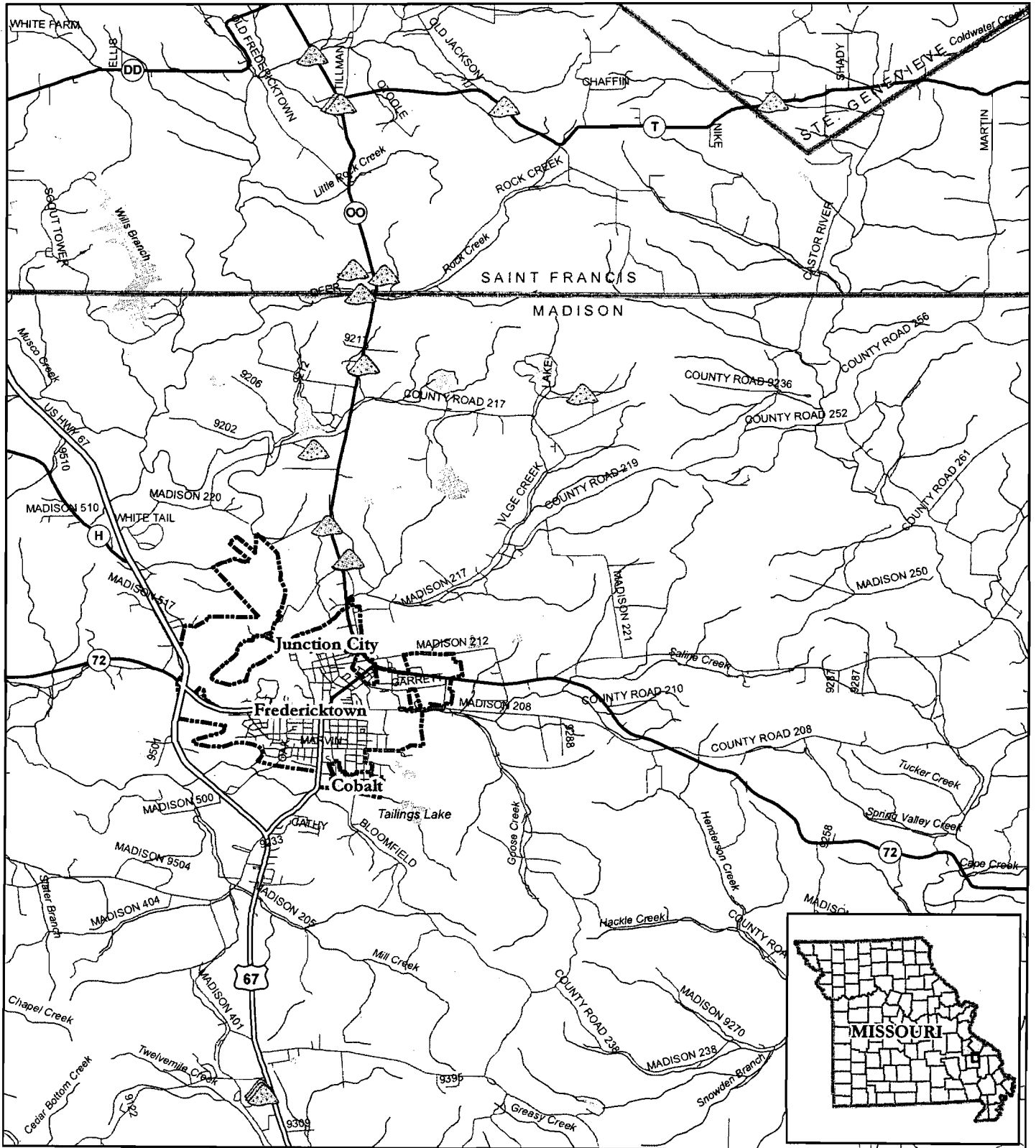
Approved:

  
\_\_\_\_\_  
Cecilia Tapia, Director  
Superfund Division

12/8/00  
\_\_\_\_\_  
Date

Enclosures: Map

# Highway 00 Lead



Administrative Boundaries and Transportation: GDT (2005)  
 Missouri DOT Piles (Lead-Containment Road Debris Piles): EPA 2006  
 Waterbodies: National Hydrology Dataset

The Environmental Protection Agency does not guarantee the accuracy, completeness, or timeliness of the data used in this map, and shall not be liable for any loss or injury resulting from reliance upon the information shown.

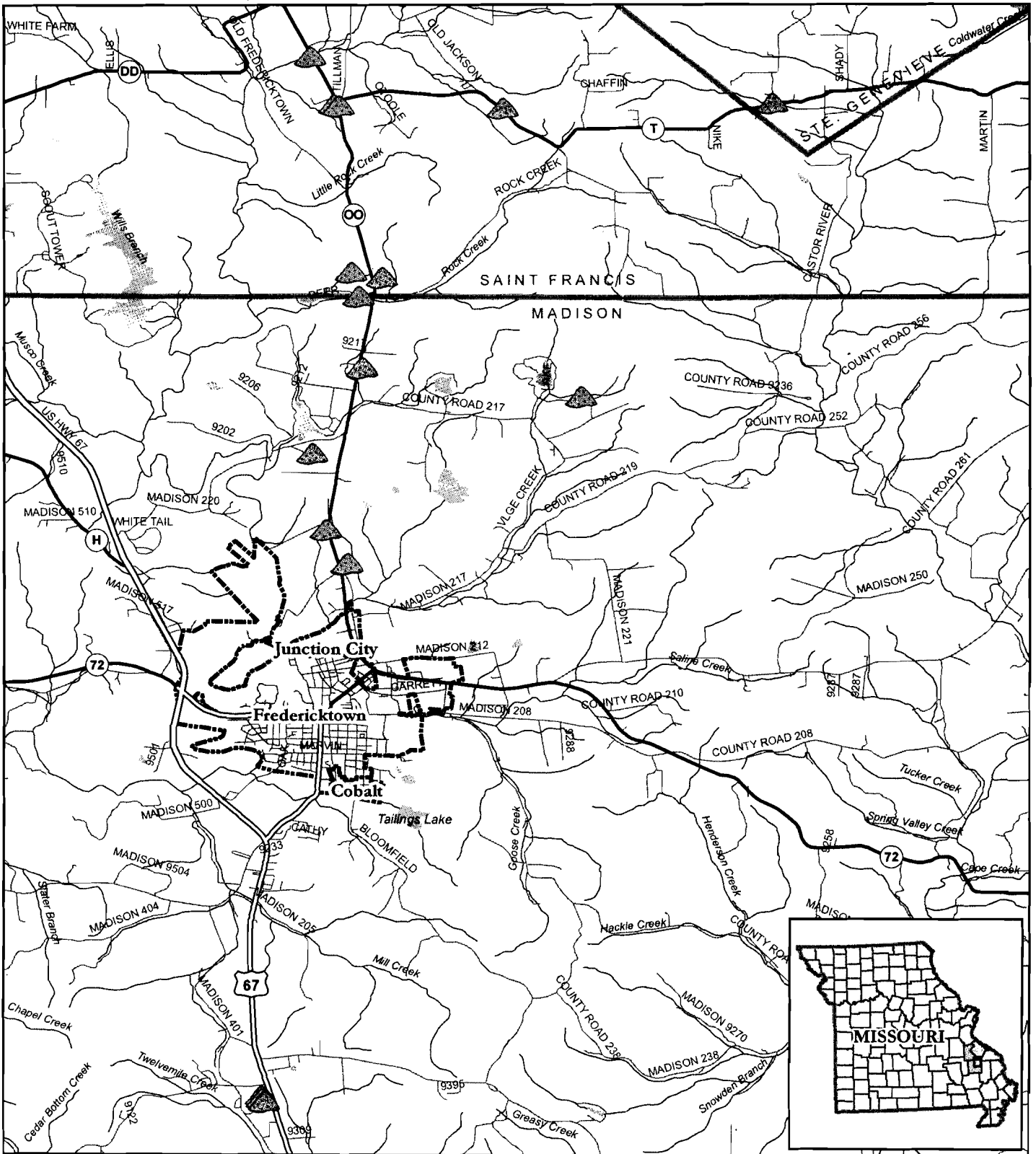
WRN# 06-262 CJM  
 August 25, 2006



- Lead Road Debris Piles
- County Boundary
- City Boundary
- Waterbody
- Stream
- State Highway
- U.S. Highway
- Streets



# Highway 00 Lead



Administrative Boundaries and Transportation: GDT (2005)  
 Missouri DOT Piles (Lead-Containment Road Debris Piles): EPA 2006  
 Waterbodies: National Hydrology Dataset

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WRN# 06-282 CjM  
 August 25, 2006



- Lead Road Debris Piles
- County Boundary
- City Boundary
- Waterbody
- Stream
- State Highway
- U.S. Highway
- Streets

