



## TABLE OF CONTENTS

I.	JURISDICTION AND GENERAL PROVISIONS.....	1
II.	PARTIES BOUND .....	1
III.	DEFINITIONS.....	1
IV.	FINDINGS OF FACT.....	3
V.	CONCLUSIONS OF LAW AND DETERMINATIONS.....	5
VI.	ORDER .....	7
VII.	OPPORTUNITY TO CONFER.....	7
VIII.	EFFECTIVE DATE.....	7
IX.	NOTICE OF INTENT TO COMPLY .....	7
X.	DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR, AND ON- SCENE COORDINATOR.....	8
XI.	WORK TO BE PERFORMED .....	9
XII.	QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS .....	14
XIII.	PROPERTY REQUIREMENTS .....	15
XIV.	ACCESS TO INFORMATION .....	16
XV.	RETENTION OF RECORDS.....	18
XVI.	COMPLIANCE WITH OTHER LAWS.....	18
XVII.	EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES .....	19
XVIII.	PAYMENT OF RESPONSE COSTS.....	19
XIX.	ENFORCEMENT/WORK TAKEOVER .....	20
XX.	RESERVATIONS OF RIGHTS BY EPA .....	21
XXI.	OTHER CLAIMS .....	21
XXII.	INSURANCE.....	21
XXIII.	FINANCIAL ASSURANCE .....	22
XXIV.	MODIFICATION .....	25
XXV.	DELAY IN PERFORMANCE .....	26
XXVI.	ADDITIONAL REMOVAL ACTIONS.....	26
XXVII.	NOTICE OF COMPLETION OF WORK.....	26
XXVIII.	ADMINISTRATIVE RECORD .....	27
XXIX.	SEVERABILITY .....	27

## I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Order (Order) is issued under the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act, (CERCLA), 42 U.S.C. § 9606(a). This authority was delegated to the Administrator of the United States Environmental Protection Agency (EPA) by Executive Order No. 12580, 52 Fed. Reg. 2923 (Jan. 23, 1987), and further delegated to the Regional Administrators by EPA Delegation Nos. 14-14-A and 14-14-B. This authority was further redelegated by the Regional Administrator of EPA Region 7 to the Director, Superfund Division by Regional Directive Number R7- 014-14-C.
2. This Order pertains to property located in the northwestern portion of Caney, Montgomery County, Kansas that includes residences, schools and day care centers, near the American Zinc, Lead and Smelter Site and the Owens Zinc Smelter. The boundaries of the Site are estimated to be defined by the aerial extent of impact from historical smelting operations, as illustrated in the depositional frequencies shown on the map, Attachment A. This Order requires Respondent to conduct a removal action described herein 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 or from the Site.
3. The EPA has notified the State of Kansas (the State) of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

## II. PARTIES BOUND

4. This Order applies to and is binding upon Respondent and its successors, and assigns. Any change in ownership or control of the Site or change in the corporate or partnership 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 Order.
5. Respondent is liable for implementing all activities required by this Order.
6. Respondent shall provide a copy of this Order to each contractor hired to perform the Work required by this Order and to each person representing Respondent with respect to the Site or the Work, and shall condition all contracts entered into hereunder upon performance of the Work in conformity with the terms of this Order. Respondent or its contractors shall provide written notice of the Order to all subcontractors hired to perform any portion of the Work required by this Order. Respondent shall nonetheless be responsible for ensuring that their contractors and subcontractors perform the Work in accordance with the terms of this Order.

## III. DEFINITIONS

7. Unless otherwise expressly provided in this Order, terms used in this Order that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in attachments to or documents incorporated by reference into this Order, the following definitions shall apply:

“Action Memorandum” shall mean the EPA Action Memorandum relating to the Site, attached as Attachment B.

“Affected Property” shall mean residential properties, schools and day care centers contaminated with lead, not owned by Respondent, that Respondent may be required to obtain access to conduct this removal action.

“CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675.

“Day” or “day” shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

“Effective Date” shall mean the effective date of this Order as provided in Section VIII.

“EPA” shall mean the United States Environmental Protection Agency and its successor, department, agencies, or instrumentalities.

“EPA Hazardous Substance Superfund” shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

“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. Rates are available online at <http://www2.epa.gov/superfund/superfund-interest-rates>.

“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.

“Order” shall mean this Unilateral Administrative Order and Attachments A - C. In the event of conflict between this Order and any Attachment, this Order shall control.

“Paragraph” shall mean a portion of this Order identified by an Arabic numeral or an upper or lower case letter.

“Parties” shall mean EPA and Respondent.

“RCRA” shall mean the Resource Conservation and Recovery Act, also known as the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992.

“Respondent” shall mean Blue Tee Corporation.

“Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in monitoring and supervising Respondent’s performance of the Work to determine whether such performance is consistent with the requirements of this Order, including costs incurred in reviewing deliverables submitted pursuant to this Order, as well as costs incurred in overseeing implementation of this Order, including, but not limited to, payroll costs, contractor costs, travel costs and laboratory costs.

“Section” shall mean a portion of this Order identified by a Roman numeral.

“Site” shall mean the Caney Residential Superfund Site, located in the northwestern portion of Caney, Montgomery County, Kansas that includes residences, schools and day care centers, near the American Zinc, Lead and Smelter Site and the Owens Zinc Smelter. The boundaries of the Site are estimated to be defined by the aerial extent of impact from historical smelting operations, as illustrated in the depositional frequencies shown on the map, Attachment A. The actual boundaries of the Site are not fully characterized and shall be determined during the removal action for this Site.

“State” shall mean the State Kansas.

“Statement of Work” or “SOW” shall mean the document describing the activities Respondent must perform to implement the removal action pursuant to this Order, as set forth in Attachment C, and any modifications made thereto in accordance with this Order.

“United States” shall mean the United States of America and each department, agency and instrumentality of the United States, including EPA.

“Waste Material” shall mean (a) any “hazardous substance” under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (b) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (c) any “solid waste” under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

“Work” shall mean all activities Respondent is required to perform under this Order, except those required by Section XV (Retention of Records).

#### IV. FINDINGS OF FACT

8. Respondent, Blue Tee Corporation (Blue Tee) is a corporation incorporated in the State of Delaware with its principal office in New York, New York. Blue Tee is a successor corporation to the American Zinc, Lead, and Smelting Company (AZLS).

9. The Site, located in the northwestern portion of Caney, Montgomery County, Kansas includes residences, schools and day care centers, near the American Zinc, Lead and Smelter Site and the Owens Zinc Smelter. The boundaries of the Site are estimated to be defined by the aerial extent of impact from historical smelting operations, as illustrated in the depositional frequencies shown on the map, Attachment A. The actual boundaries of the Site are not fully characterized and shall be determined during the removal action for this Site.

10. The discovery and use of natural gas in the early 1900's led to the development of zinc and lead smelting operations in southeast Kansas which included Caney, Kansas. Two smelters were located in Caney, Kansas, both of which were owned and/or operated by AZLS.
11. AZLS owned the Northwest  $\frac{1}{4}$  of Section 7, Township 35 South, Range 14 East in Caney, Montgomery, Kansas and operated a lead and zinc ore smelting operation at the Site from approximately 1907 to 1920.
12. AZLS was granted a lease by the Owens Zinc Co. (Owens Zinc) to construct, maintain and operate a smelter, the "Owens Plant", on the north side of Caney from at least August 12, 1915 to September 30, 1916, with options to extend the lease to June 30, 1926. Also, AZLS was granted a lease by Owens Zinc to construct, maintain and operate smelting furnaces, the "American Plant", on the north side of Caney from at least August 12, 1915 to September 30, 1916, with options to extend the lease to June 30, 1926. The legal description for the Owens Plant and the American Plant were the west one half ( $\frac{1}{2}$ ) of the southwest quarter ( $\frac{1}{4}$ ) of the southeast quarter ( $\frac{1}{4}$ ) of Section One (1) Township Thirty Five (35), Range Thirteen (13), in Montgomery County, Kansas.
13. EPA documented in its draft Action Memorandum for this Site that smelter waste (i.e., slag, ash retort debris, etc.) can still be seen at the surface in the area near the two former smelters in Caney, Kansas.
14. In an Integrated Assessment dated March 12, 2015, Kansas Department of Health and Environment documented elevated lead levels from samples taken in four residential yards in Caney, Kansas. Soil samples results for lead at residences were 3,751 and 5,100 milligrams per kilogram (mg/kg) at 1202 North State Street, 529 mg/kg and 500 mg/kg at 1180 North State Street, 336 mg/kg and 320 mg/kg at 1101 North Spring Street, 1,677 mg/kg at 1106 North Wood, 2,843 mg/kg at 1111 North Wood, and 550 mg/kg at 1005 North State Street.
15. In June 2015, EPA initiated a Removal Site Evaluation (RSE). The EPA sampled properties in accordance with the Superfund Lead Contaminated Residential Sites Handbook (OSWER 9285.7-50). Sampling results identified 81 residential properties with at least one soil sample that exceeded 400 mg/kg for lead. Soil sample results were as high as 2,937 mg/kg for lead. Further sampling is required for soils in order to determine if additional residents are exposed to the health risks posed by lead. An additional 59 residences had lead contamination only in the "drip zone", the immediate perimeter around the house or other building. Approximately 150 residential properties have not been screened because the residents denied access or could not be contacted. In 2015, an additional 86 residences were vacant and must be sampled when ownership is determined and access is obtained.
16. The health based screening level for residents in Kansas is 400 mg/kg as expressed in its RSK manual and is also the site specific cleanup level EPA developed for this Site. EPA used the Integrated Exposure Uptake Biokinetic Model for Lead in Children to develop a site specific cleanup level of 418 mg/kg at this site that was reduced to 400 mg/kg by EPA in its September 2, 2015 memorandum by EPA's Toxicologist.

17. The actual or potential releases may be occurring via airborne dusts, surface runoff, percolation into groundwater, construction activity, by children transporting soils/dusts into their homes after playing in their yards, and tracked into residences or the school by foot. There is also a significant threat of release caused by wind-blown surface soils resulting in a risk of exposure to children and adults who reside at the Site and attend church or school at the Site.

18. Elevated concentrations (greater than 400 mg/kg) of lead have been found within 100 feet of residential locations at the Site. Children playing in and around the contaminated areas have the highest potential to be exposed.

19. Lead is toxic to humans and animals via oral, dermal and respiratory exposure routes. Chronic exposure to even low levels of lead has been linked to the existence of developmental disabilities and delays in brain growth and decline in IQ in children and can inhibit normal physical growth. Lead poisoning in children can have residual cognitive deficits that can still be detected in adulthood. Lead has been shown to produce various diseases that affect brain function. Symptoms develop following prolonged exposure and include dullness, irritability, poor attention span, chronic pain, constipation, vomiting convulsions, coma and death. The EPA has determined that lead is a probable human carcinogen. Central nervous system effects include severe headaches, convulsions, coma, delirium and possibly death. Exposure to lead also causes reproductive effects in both men and women. Human exposure through ingestion may result in adverse health effects such as damage to the central nervous system, peripheral nervous system, and kidney and blood disorders.

20. Children are more vulnerable to lead poisoning than adults. For children, exposure to 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, and impaired hearing acuity.

21. The Site is not listed or proposed for the National Priorities List (NPL) pursuant to CERCLA § 105, 42 U.S.C. § 9605.

## V. CONCLUSIONS OF LAW AND DETERMINATIONS

22. Based on the Findings of Fact set forth above, and the administrative record, the EPA has determined that:

- a. The Caney Residential Yards Superfund Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
- b. Respondent, Blue Tee Corporation (Blue Tee), is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
- c. Respondent, Blue Tee, is a liable party pursuant to:
  - (1) Section 107(a)(1) of CERCLA, 42 U.S.C. § 9601(a)(1) as a current owner and/or operator at the facility;

(2) Section 107(a)(2) of CERCLA, 42 U.S.C. §9601(a)(2) as a person who at the time of disposal of hazardous substances owned or operated the facility; and

(3) Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3) as a person who arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment of hazardous substances at the facility, within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).

d. The lead contamination in soils in residential properties found at the Site, as identified in the Findings of Fact above, includes a “hazardous substance” as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

e. The conditions described in the Findings of Fact above constitute an actual and/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 conditions at the Site may constitute a threat to public health or welfare or the environment, based on the factors set forth in Section 300.415(b)(2) of the NCP. These factors include, but are not limited to, the following:

(1) actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances; this factor is present at the Site due to the existence of lead;

(2) high levels of hazardous substances in soils largely at or near the surface, that may migrate; this factor is present at the Site due to the existence of lead;

(3) weather conditions that may cause hazardous substances to migrate or be released; this factor is present at the Site due to the existence of lead; and

(4) the unavailability of other appropriate federal or state response mechanisms to respond to the release;

g. The conditions described in the Findings of Fact above may constitute an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from the facility within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

h. The removal actions required by this Order are necessary to protect the public health, welfare, or the environment.

## VI. ORDER

23. Based upon the Findings of Fact, Conclusions of Law and Determinations set forth above, and the administrative record, Respondent is hereby ordered to comply with all provisions of this Order and any modifications to this Order, including all attachments to this Order and all documents incorporated by reference into this Order.

## VII. OPPORTUNITY TO CONFER

24. Within five days after receipt of this Order, Respondent may, in writing, request a conference with the EPA to discuss this Order, including its applicability, the factual findings and the determinations upon which it is based, the appropriateness of any actions Respondent is ordered to take, or any other relevant and material issues or contentions that Respondent may have regarding this Order.

25. Respondent may appear in person or by an attorney or other representative at the conference. A teleconference may be scheduled at Respondent's request in lieu of a personal appearance. Any such conference shall be held within five business days after the conference is requested. Respondent may also submit written comments or statements of position on any matter pertinent to this Order no later than five days after the conference or within 10 days after this Order is signed if Respondent does not request a conference. This conference is not an evidentiary hearing, does not constitute a proceeding to challenge this Order, and does not give Respondent a right to seek review of this Order. Any request for a conference or written comments or statements should be submitted to:

Denise L. Roberts, Senior Assistant Regional Counsel  
Office of Regional Counsel  
U.S. Environmental Protection Agency  
11201 Renner Blvd.  
Lenexa, Kansas 66219

## VIII. EFFECTIVE DATE

26. This Order shall be effective five days after the Order is signed by the Director of the Superfund Division or his/her delegate unless a conference is requested or written materials are submitted in accordance with Section VII (Opportunity to Confer). If a conference is requested or written materials are submitted, this Order shall be effective on the later of the 10<sup>th</sup> day after the day of the conference, or the 10<sup>th</sup> day after written materials, if any, are submitted, unless the EPA determines that the Order should be modified based on the conference or written materials. In such event, the EPA shall notify Respondent, within the 10 day period that EPA intends to modify the Order. The modified Order shall be effective five days after it is signed by the Director of the Superfund Division or his/her delegate.

## IX. NOTICE OF INTENT TO COMPLY

27. On or before the effective date, Respondent shall notify the EPA in writing of Respondent's irrevocable intent to comply with this Order. Such written notice shall be sent to

the EPA as provided in Paragraph 25. Respondent's written notice shall describe, using facts that exist on or prior to the Effective Date, any "sufficient cause" defense asserted by such Respondent under Sections 106(b) and 107(c)(3) of CERCLA, 42 U.S.C. §§ 9606(b) and 9607(c)(3). The absence of a response by the EPA to the notice required by this Paragraph shall not be deemed to be acceptance of Respondent's assertions. Failure of Respondent to provide such notification within this time period shall, as of the Effective Date, be treated as a violation of this Order by such Respondent.

X. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR, AND ON-SCENE COORDINATOR

28. Selection of Contractors, Personnel. All Work performed under this Order shall be under the direction and supervision of qualified personnel. Within 10 days after the Effective Date, and before the Work outlined below begins, Respondent shall notify EPA in writing of the names, titles and qualifications of the personnel, including contractors, subcontractors, consultants and laboratories to be used in carrying out such Work. If, after the commencement of the Work, Respondent retains additional contractor(s) or subcontractor(s), Respondent shall notify the EPA of the name(s) and qualification(s) of such contractor(s) or subcontractor(s) retained to perform the Work at least 10 days prior to commencement of Work by such additional contractor(s) or subcontractor(s). The EPA retains the right, at any time, to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If the EPA disapproves of a selected contractor or subcontractor, Respondent shall retain a different contractor or subcontractor and shall notify the EPA of that contractor's or subcontractor's name and qualifications within 10 days after the EPA's disapproval. With respect to any proposed contractor, Respondent shall demonstrate that the proposed contractor demonstrates compliance with ASQ/ANSI E4:2014 "Quality management systems for environmental information and technology programs – Requirements with guidance for use" (American Society for Quality, February 2014), by submitting a copy of the proposed contractor's Quality Management Plan (QMP). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, Reissued May 2006) or equivalent documentation as determined by the EPA. The qualifications of the persons undertaking the Work for Respondent shall be subject to the EPA's review for verification that such persons meet minimum technical background and experience requirements.

29. Within 10 days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of the Work required by this Order and shall submit to the EPA the designated Project Coordinator's name, address, telephone number, email address and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during the Work. The EPA retains the right to disapprove of the designated Project Coordinator. If the EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify the EPA of that person's name, address, telephone number, email address and qualifications within 10 days following the EPA's disapproval. Respondent shall have the right to change their Project Coordinator, subject to the EPA's right to disapprove. Respondent shall notify the EPA 10 days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notification. Communications between Respondent and the Project Coordinator, and all documents concerning the activities performed pursuant to this Order, shall be directed to the

Project Coordinator. Receipt by Respondent's Project Coordinator of any notice or communication from the EPA relating to this Order shall constitute receipt by Respondent.

30. The EPA has designated Mike Davis of the Emergency Response & Removal South Branch, Region 7, as its On-Scene Coordinator (OSC). EPA will notify Respondent of a change of its designated OSC. Communications between Respondent and the EPA, and all documents concerning the activities performed pursuant to this Order, shall be directed to the OSC in accordance with Paragraph 35.a(1).

31. The OSC shall be responsible for overseeing Respondent's implementation of this Order. The OSC shall have the authority vested in a Remedial Project Manager (RPM) and an OSC by the NCP, including the authority to halt, conduct or direct any Work required by this Order, or to direct any other response action when s/he determines that conditions at the Site constitute an emergency situation or may present a threat to public health or welfare or the environment. Absence of the OSC from the Site shall not be cause for stoppage or delay of Work.

#### XI. WORK TO BE PERFORMED

32. Respondent shall perform, at a minimum, all actions necessary to implement the Scope of Work (SOW), attached hereto as Attachment C. The actions to be implemented generally include, but are not limited to, the following:

- a. Obtaining access to residential properties;
- b. Sampling residential properties to determine if lead is present in shallow soils at concentrations that exceed the removal action criteria of 400 mg/kg;
- c. Excavation of contaminated soils;
- d. Stabilization of soils on-site, if necessary;
- e. Disposal of excavated contaminated materials; and
- f. Restoration of residential properties following excavation, and post removal site controls, as necessary.

33. For any regulation or guidance referenced in the Order, the reference will be read to include any subsequent modification, amendment, or replacement of such regulation or guidance. Such modifications, amendments, or replacements apply to the Work only after Respondent receives notification from EPA of the modification, amendment, or replacement.

34. Work Plan and Implementation.

- a. Within thirty (30) days after the Effective Date, in accordance with Paragraph 35 (Submission of Deliverables), Respondent shall submit to EPA for review and approval a draft work plan for performing the removal actions (the Removal Work Plan) in accordance with the SOW. The draft Removal Work Plan

shall provide a description of, and an expeditious schedule for, the Work required by this Order.

b. EPA may approve, disapprove, require revisions to, or modify the draft Removal Work Plan in whole or in part. If EPA requires revisions, Respondent shall submit a revised draft Removal Work Plan within fifteen days after receipt of EPA's notification of the required revisions. Respondent shall implement the Removal Work Plan as approved in writing by EPA in accordance with the schedule approved by the EPA. Once approved, or approved with modifications, the Removal Work Plan, the schedule and any subsequent modifications shall be incorporated into and become fully enforceable under this Order.

c. Upon approval or approval with modifications of the Removal Work Plan, Respondent shall commence implementation of the Work in accordance with the schedule included therein. Respondent shall not commence or perform any Work except in conformance with the terms of this Order. Respondent shall notify the EPA at least 48 hours prior to performing any Work on-site pursuant to the EPA-approved Removal Work Plan.

d. Unless otherwise provided in this Order, any additional deliverables that require EPA approval under the SOW or Removal Work Plan shall be reviewed and approved by the EPA in accordance with this Paragraph.

e. Any non-compliance with any EPA-approved plans, reports, specifications, schedules or other deliverables shall be considered a violation of the requirements of this Order. Determinations of non-compliance shall be made by the EPA. Approval of the Removal Work Plan shall not limit EPA's authority under the terms of this Order to require Respondent to conduct activities consistent with this Order to accomplish the Work outlined in this Section.

35. Submission of Deliverables.

a. General Requirements for Deliverables.

- (1) Except as otherwise provided in this Order, Respondent shall direct all submissions required by this Order to:

Mike Davis, On-Scene Coordinator  
Emergency Response & Removal South Branch  
U.S. Environmental Protection Agency - Region 7  
8600 NE Underground Rd, Pillar 253  
Kansas City, Missouri 64161

- (2) Respondent shall submit all deliverables required by this Order, the SOW or any approved work plan to EPA in accordance with the schedule set forth in such plan.

(3) Respondent shall submit all deliverables in hard copy and electronic form. Technical specifications for sampling and monitoring data and spatial data are addressed in Paragraph 35.b. All other deliverables shall be submitted to the EPA in the form specified by the OSC. If any deliverable includes maps, drawings or other exhibits that are larger than 8.5 x 11 inches, Respondent shall also provide the EPA with paper copies of such exhibits.

b. Technical Specifications for Deliverables.

(1) Sampling and monitoring data should be submitted in Scribe Electronic Data Deliverable (EDD) format. Other delivery methods including Excel or Access may be allowed if electronic direct submission presents a significant burden.

(2) Spatial data, including spatially-referenced data and geospatial data, should be submitted: (a) in the ESRI File Geodatabase format; and (b) as unprojected geographic coordinates in decimal degree format using North American Datum 1983 (NAD83) or World Geodetic System 1984 (WGS84) as the datum. If applicable, submissions should include the collection method(s). Projected coordinates may optionally be included but must be documented. Spatial data should be accompanied by metadata, and such metadata should be compliant with the Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata and its EPA profile, the EPA Geospatial Metadata Technical Specification. An add-on metadata editor for ESRI software, the EPA Metadata Editor (EME), complies with these FGDC and EPA metadata requirements and is available at <https://edg.epa.gov/EME/>.

(3) Each file must include an attribute name for each site unit or sub-unit submitted. Consult <http://www.epa.gov/geospatial/policies.html> for any further available guidance on attribute identification and naming.

(4) Spatial data submitted by Respondent does not, and is not intended to, define the boundaries of the Site.

36. Sampling and Analysis Plan. Within 30 days after the Effective Date, Respondent shall submit a Sampling and Analysis Plan to the EPA for review and approval. This plan shall consist of a Field Sampling Plan (FSP) and a Quality Assurance Project Plan (QAPP) that is consistent with the SOW, the Removal Work Plan, the NCP applicable guidance documents, including, but not limited to, "Guidance for Quality Assurance Project Plans (QA/G-5)" EPA/240/R-02/009 (December 2002), "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" EPA 240/B-01/003 (March 2001, reissued May 2006), and "Uniform Federal Policy for Quality Assurance Project Plans, Parts 1-3 EPA/505/B-04/900A-900C (March 2005). Upon its approval by EPA, the Sampling and Analysis Plan shall be incorporated into and become enforceable under this Order.

37. Health and Safety Plan. Within 30 days after the Effective Date, Respondent shall submit for EPA review and comment a Health and Safety Plan that ensures the protection of on-site workers and the public during performance of on-site Work under this Order. This plan shall be prepared in accordance with "OSWER Integrated Health and Safety Program Operating Practices for OSWER Field Activities," Pub. 9285.0-OIC (Nov. 2002), available on the NSCEP database at <http://www.epa.gov/nscep/index.html>, and "EPA's Emergency Responder Health and Safety Manual," OSWER Directive 9285.3-12 (July 2005 and updates), available at <http://www.epaossc.org/HealthSafetyManual/manual-index.htm>. 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 actions.

38. Community Involvement Plan. The EPA will prepare a community involvement plan in accordance with EPA guidance and the NCP. If requested by the EPA, Respondent shall participate in community involvement activities, including participation in: (a) the preparation of information regarding the Work for dissemination to the public, with consideration given to including mass media and/or Internet notification, and (b) public meetings that may be held or sponsored by EPA to explain activities at or relating to the Site. Respondent's support of EPA's community involvement activities may include providing online access to initial submissions and updates of deliverables to: (a) any community advisory groups, (b) any technical assistance grant recipients and their advisors, and (c) other entities to provide them with a reasonable opportunity for review and comment. All community involvement activities conducted by Respondent at EPA's request are subject to EPA's oversight. Upon EPA's request, Respondent shall establish a community information repository at or near the Site to house one copy of the administrative record.

39. Post-Removal Site Control. In accordance with the Removal Work Plan schedule, or as otherwise directed by EPA, Respondent shall submit a proposal for Post-Removal Site Controls (PRSCs) which shall include, but not be limited to the PRSCs described in the SOW. Upon EPA approval, Respondent shall either conduct Post-Removal Site Control activities, or obtain a written commitment from another party for conduct of such activities, until such time as EPA determines that no further Post-Removal Site Control is necessary. Respondent shall provide EPA with documentation of all Post-Removal Site Control commitments.

40. Progress Reports. Respondent shall submit a written progress report to EPA concerning actions undertaken pursuant to this Order on a monthly basis, or as otherwise requested by EPA, from the date of receipt of EPA's approval of the Removal Work Plan until issuance of Notice of Completion of Work pursuant to Section XXVII, unless otherwise directed in writing by the OSC. These reports shall describe all significant developments during the preceding period, 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.

41. Final Report. Within sixty (60) days after completion of all Work required by this Order, with the exception of any continuing obligations required by this Order, including post-removal

site controls, reimbursement of Response Costs, and records retention, Respondent shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Order. EPA will review and approve the final report in accordance with Section XXVII (Notice of Completion of Work). The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP, "OSC Reports." The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Order, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal actions (e.g., manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a responsible corporate official of a Respondent or Respondent's Project Coordinator: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than 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".

42. Off-Site Shipments.

a. Respondent may ship hazardous substances, pollutants, and contaminants from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondent will be deemed to be in compliance with CERCLA § 121(d)(3) and 40 C.F.R. § 300.440 regarding a shipment if Respondent obtains a prior determination from EPA that the proposed receiving facility for such shipment is acceptable under the criteria of 40 C.F.R. § 300.440(b).

b. Respondent may ship Waste Material from the Site to an out-of-state waste management facility only if, prior to any shipment, they provide written notice to the appropriate state environmental official in the receiving facility's state and to the OSC. This notice requirement will not apply to any off-Site shipments when the total quantity of all such shipments will not exceed ten cubic yards. The written notice must include the following information, if available: (1) the name and location of the receiving facility; (2) the type and quantity of Waste Material to be shipped; (3) the schedule for the shipment; and (4) the method of transportation. Respondent shall also notify the state environmental official referenced above and the OSC of any major changes in the shipment plan, such as a decision to ship the Waste Material to a different out-of-state facility. Respondent shall provide the notice after the award of the contract for the removal action and before the Waste Material is shipped.

c. Respondent may ship Investigation Derived Waste (IDW) from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), 40 C.F.R. § 300.440, EPA's "Guide to Management of Investigation Derived Waste," OSWER 9345.3-03FS (Jan. 1992), and any IDW-specific requirements contained in the Action Memorandum. Wastes shipped off-Site to a laboratory for characterization, and RCRA hazardous wastes that meet the requirements for an exemption from RCRA under 40 C.F.R. § 261.4(e) shipped off-Site for treatability studies, are not subject to 40 C.F.R. § 300.440.

## XII. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS

43. Respondent shall use quality assurance, quality control, and other technical activities and chain of custody procedures for all samples consistent with "EPA Requirements for Quality Assurance Project Plans (QA/R5)," EPA/240/B-01/003 (March 2001, reissued May 2006), "Guidance for Quality Assurance Project Plans (QA/G-5)," EPA/240/R-02/009 (December 2002), and "Uniform Federal Policy for Quality Assurance Project Plans," Parts 1-3, EPA/505/B-04/900A-900C (March 2005).

### 44. Access to Laboratories.

a. Respondent shall ensure that the EPA personnel and its authorized representatives are allowed access at reasonable times to all laboratories utilized by Respondent pursuant to this Order. In addition, Respondent shall ensure that such laboratories shall analyze all samples submitted by the EPA pursuant to the QAPP for quality assurance, quality control, and technical activities that will satisfy the stated performance criteria as specified in the QAPP and that sampling and field activities are conducted in accordance with EPA's "Field Operations Group Operational Guidelines for Field Activities" (<http://www.epa.gov/region8/qa/FieldOperationsGroupOperationalGuidelinesForFieldActivities.pdf>) and "EPA QA Field Activities Procedure" (<http://www.epa.gov/irmpoli8/policies/2105-p-02.pdf>). Respondent shall ensure that the laboratories they utilize for the analysis of samples taken pursuant to this Order meet the competency requirements set forth in the EPA's "Policy to Assure Competency of Laboratories, Field Sampling, and Other Organizations Generating Environmental Measurement Data under Agency-Funded Acquisitions" (<http://www.epa.gov/fem/pdfs/fem-lab-competency-policy.pdf>) and that the laboratories perform all analyses using the EPA-accepted methods. Accepted EPA methods consist of, but are not limited to, methods that are documented in the EPA's Contract Laboratory Program (<http://www.epa.gov/superfund/programs/clp/>), SW 846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (<http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm>), "Standard Methods for the Examination of Water and Wastewater" (<http://www.standardmethods.org/>), 40 C.F.R. Part 136, "Air Toxics - Monitoring Methods" (<http://www.epa.gov/ttnamti1/airtox.html>)." However, upon approval by the EPA, Respondent may use other appropriate analytical method(s), as long as: (i) quality assurance/quality control (QA/QC) criteria are contained in the

method(s) and the method(s) are included in the QAPP; (ii) the analytical method(s) are at least as stringent as the methods listed above; and, (iii) the method(s) have been approved for use by a nationally recognized organization responsible for verification and publication of analytical methods, e.g., EPA, ASTM, NIOSH, OSHA, etc. Respondent shall ensure that all laboratories they use for analysis of samples taken pursuant to this Order have a documented Quality System that complies with ASQ/ANSI E4:2014 “Quality management systems for environmental information and technology programs – Requirements with guidance for use” (American Society for Quality, February 2014), and “EPA Requirements for Quality Management Plans (QA/R-2)” EPA/240/B-01/002 (March 2001, reissued May 2006), or equivalent documentation as determined by the EPA. The EPA may consider Environmental Response Laboratory Network (ERLN) laboratories, laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP), or laboratories that meet International Standardization Organization (ISO 17025) standards or other nationally recognized programs (<http://www.epa.gov/fem/accredit.htm>) as meeting the Quality System requirements. Respondent shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Order are conducted in accordance with the procedures set forth in the QAPP approved by EPA.

b. Upon request, Respondent shall provide split or duplicate samples to the EPA or its authorized representatives. Respondent shall notify the EPA not less than seven days in advance of any sample collection activity. In addition, the EPA shall have the right to take any additional samples that the EPA deems necessary. Upon request, the EPA shall provide to Respondent split or duplicate samples of any samples it takes as part of EPA’s oversight of Respondent’s implementation of the Work.

c. Respondent shall submit to the EPA, in the next monthly progress report as described in Paragraph 40 (Progress Reports), copies of the results of all sampling and/or tests or other data obtained or generated by or on behalf of Respondent with respect to the Site and/or the implementation of this Order.

### XIII. PROPERTY REQUIREMENTS

45. Agreements Regarding Access and Non-Interference. Respondent shall, with respect to any Non-Respondent Owner’s Affected Property, use best efforts to secure from such Non-Respondent Owner an agreement, enforceable by Respondent and the EPA, providing that such Non-Respondent Owner; (i) provide EPA, Respondent, and their representatives, contractors, and subcontractors with access at all reasonable times to such Affected Property to conduct any activity regarding the Order, including those activities listed in Paragraph 45.a (Access Requirements); and (ii) refrain from using such Affected Property in any manner that the EPA determines will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material, or interfere with or adversely affect the implementation, integrity, or protectiveness of the removal action.

a. Access Requirements. The following is a list of activities for which access is required regarding the Affected Property:

- (1) Monitoring the Work;
- (2) Verifying any data or information submitted to the EPA;
- (3) Conducting investigations regarding contamination at or near the Site;
- (4) Obtaining samples;
- (5) Assessing the need for, planning, implementing, or monitoring response actions;
- (6) Assessing implementation of quality assurance and quality control practices as defined in the approved quality assurance quality control plan as provided in the SOW as defined in the approved QAPP;
- (7) Implementing the Work pursuant to the conditions set forth in Section XIX (Enforcement/Work Takeover);
- (8) Inspecting and copying records, operating logs, contracts or other documents maintained or generated by Respondent or their agents, consistent with Section XIV (Access to Information); and
- (9) Assessing Respondent's compliance with the Order.

46. Best Efforts. As used in this Section, "best efforts" means the efforts that a reasonable person in the position of Respondent would use so as to achieve the goal in a timely manner, including the cost of employing professional assistance and the payment of reasonable sums of money to secure access and/or use restriction agreements, as required by this Section. If, within 30 days after the Effective Date, Respondent is unable to accomplish what is required through "best efforts" it shall notify the EPA, and include a description of the steps taken to comply with the requirements. If the EPA deems it appropriate, it may assist Respondent or take independent action in obtaining such access and/or use restrictions. The EPA reserves the right to seek payment from Respondent for all costs, including cost of attorneys' time, incurred by the United States in obtaining such access or agreements to restrict land, water or other resource use.

47. Notwithstanding any provision of this Order, the EPA retains all of its access authorities and rights, as well as all of its rights to require land, water or other resource use restrictions, including enforcement authorities related thereto under CERCLA, RCRA, and any other applicable statute or regulations.

#### XIV. ACCESS TO INFORMATION

48. Respondent shall provide to EPA, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as "Records") within Respondent's possession or control or that of

its contractors or agents relating to activities at the Site or to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence or other documents or information regarding the Work. Respondent shall also make available to EPA, for purposes of investigation, information gathering or testimony, their employees, agents or representatives with knowledge of relevant facts concerning the performance of the Work.

49. Privileged and Protected Claims.

a. Respondent may assert that all or part of a Record requested by the EPA is privileged or protected as provided under federal law, in lieu of providing the Record, provided Respondent complies with Paragraph 49.b and except as provided in Paragraph 49.c.

b. If Respondent asserts a claim of privilege or protection, it shall provide the EPA with the following information regarding such Record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each recipient; a description of the Record's contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a Record, Respondent shall provide the Record to the EPA in redacted form to mask the privileged or protected portion only. Respondent shall retain all Records that they claim to be privileged or protected until the EPA has had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in Respondent's favor.

c. Respondent may make no claim of privilege or protection regarding: (1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological or engineering data, or the portion of any other Record that evidences conditions at or around the Site; or (2) the portion of any Record that Respondent is required to create or generate pursuant to this Order.

50. Business Confidential Claims. Respondent may assert that all or part of a Record provided to the EPA under this Section or Section XV (Retention of Records) is business confidential 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). Respondent shall segregate and clearly identify all Records or parts thereof submitted under this Unilateral Administrative Order for which Respondent asserts business confidentiality claims. Records submitted to the EPA determined to be confidential by the EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to the EPA, or if the EPA has notified Respondent that the Records 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 Records without further notice to Respondent.

51. Notwithstanding any provision of this Order, the EPA retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

## XV. RETENTION OF RECORDS

52. During the pendency of this Order and for a minimum of 10 years after Respondent's receipt of the EPA's notification pursuant to Section XXVII (Notice of Completion of Work), Respondent shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in its possession or control, or that come into its possession or control, that relate in any manner to its liability under CERCLA with respect to the Site. Respondent must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above, all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to the performance of the Work, provided, however, that Respondent (and its contractors and agents) must retain, in addition, copies of all data generated during performance of the Work and not contained in the aforementioned Records required to be retained. Each of the above r

53. Record retention requirements shall apply regardless of any corporate retention policy to the contrary.

54. At the conclusion of this document retention period, Respondent shall notify the EPA at least 90 days prior to the destruction of any such Records, and, upon request by the EPA, and except as provided in Paragraph 50, Respondent shall deliver any such Records to the EPA.

55. Within 10 days after the Effective Date, Respondent shall submit a written certification to EPA's OSC 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 (other than identical copies) relating to its potential liability regarding the Site since notification of its potential liability by the United States, and that it has fully complied with any and all EPA requests for information regarding the Site 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. If Respondent is unable to so certify, it shall submit a modified certification that explains in detail why it is unable to certify in full with regard to all Records.

## XVI. COMPLIANCE WITH OTHER LAWS

56. Nothing in this Order limits Respondent's obligations to comply with the requirements of all applicable 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 Order shall, to the extent practicable, as determined by the EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements (ARARs) under federal environmental or state environmental or facility siting laws. Respondent shall identify ARARs in the Removal Work Plan subject to EPA approval.

57. No local, state or federal permit shall be required for any portion of the Work conducted entirely on-site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Work), including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where

any portion of the Work that is not on-site requires a federal or state permit or approval, Respondent shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. This Order is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

## XVII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

58. Emergency Response. If any event occurs during performance of the Work that causes or threatens to cause a release of any Waste Material on, at or from the Site that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action to prevent, abate or minimize such release or threat of release. Respondent shall take these actions in accordance with all applicable provisions of this Order, including, but not limited to, the Health and Safety Plan. Respondent shall also immediately notify the OSC or, in the event of his/her unavailability, the Regional Duty Officer (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 the EPA takes such action instead, the EPA reserves the right to pursue cost recovery.

59. Release Reporting. Upon the occurrence of any event during performance of the Work that Respondent is required to report pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-To-Know Act (EPCRA), 42 U.S.C. § 11004, Respondent shall immediately orally notify the OSC, or, in the event of his/her unavailability, the Regional Duty Officer at (913) 281-0991, and the National Response Center at (800) 424-8802. This reporting requirement is in addition to, and not in lieu of, the reporting required by CERCLA § 103 or EPCRA § 304.

60. For any event covered under this Section, Respondent shall submit a written report to the EPA within seven days after the onset of such event, setting forth the action or event that occurred and the measures taken, and to be taken, to mitigate any release or threat of release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release or threat of release.

## XVIII. PAYMENT OF RESPONSE COSTS

61. Upon EPA's written demand, Respondent shall pay the EPA all Response Costs incurred or to be incurred in connection with this Order. On a periodic basis, the EPA will send Respondent a bill requiring payment of all Response Costs incurred by the United States with respect to this Order that includes a SCORPIOS summary, which includes direct and indirect costs incurred by the EPA, its contractors and the Department of Justice.

62. Respondent shall make all payments within 30 days after receipt of each written demand requiring payment. Payment shall be made to the EPA by Fedwire Electronic Funds Transfer (EFT) to:

Federal Reserve Bank of New York  
ABA = 021030004  
Account = 68010727  
SWIFT address = FRNYUS33  
33 Liberty Street  
New York NY 10045  
Field Tag 4200 of the Fedwire message should read "D 68010727 Environmental  
Protection Agency"

and shall reference Site/Spill ID Number B7A3 and the EPA docket number for this action.

63. At the time of payment, Respondent shall send notice that payment has been made to:
- Mike Davis, On-Scene Coordinator
  - Emergency Response & Removal South Branch
  - U.S. Environmental Protection Agency – Region 7
  - 8600 NE Underground Road, Pillar 253
  - Kansas City, Missouri 64161

and to the EPA Cincinnati Finance Office by email at [cinwd\\_acctsreceivable@epa.gov](mailto:cinwd_acctsreceivable@epa.gov), or by mail to:

EPA Cincinnati Finance Office  
26 W. Martin Luther King Drive  
Cincinnati, Ohio 45268

Such notice shall reference Site/Spill ID Number B7A3 and EPA docket number for this action.

64. In the event that the payments for Response Costs are not made within 30 days after Respondent's receipt of a written demand requiring payment, Respondent shall pay Interest on the unpaid balance. The Interest on Response Costs shall begin to accrue on the date of the written demand 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. Respondent shall make all payments required by this Paragraph in the manner described in Paragraphs 61 and 62.

#### XIX. ENFORCEMENT/WORK TAKEOVER

65. Any willful violation, or failure or refusal to comply with any provision of this Order may subject Respondent to civil penalties of up to \$57,907 per violation per day, as provided in Section 106(b)(1) of CERCLA, 42 U.S.C. § 9606(b)(1), and the Civil Monetary Penalty Inflation Adjustment Rule, 69 Fed. Reg. 7121, 40 C.F.R. Part 19.4. In the event of such willful violation, or failure or refusal to comply, the EPA may carry out the required actions unilaterally, pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, and/or may seek judicial enforcement of this Order pursuant to Section 106 of CERCLA, 42 U.S.C. § 9606. In addition, nothing in this Order shall limit the EPA's authority under Section XXIII (Financial Assurance). Respondent may also

be subject to punitive damages in an amount up to three times the amount of any costs incurred by the United States as a result of such failure to comply, as provided in Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3).

## XX. RESERVATIONS OF RIGHTS BY EPA

66. Nothing in this Order shall limit the power and authority of the 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 in this Order shall prevent the EPA from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law. The EPA reserves the right to bring an action against Respondent under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States related to this Order or the Site.

## XXI. OTHER CLAIMS

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

68. Nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

69. Nothing in this Order shall be deemed to constitute preauthorization of a claim within the meaning of Section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2), or 40 C.F.R. § 300.700(d).

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

## XXII. INSURANCE

71. No later than 10 days before commencing any on-site Work, Respondent shall secure, and shall maintain for the duration of this Order, commercial general liability insurance with limits of two million dollars, for any one occurrence, and automobile insurance with limits of two million dollars, combined single limit, naming the EPA as an additional insured with respect to all liability arising out of the activities performed by or on behalf of Respondent pursuant to this Order. Within the same time period, Respondent shall provide the EPA with certificates of such insurance and a copy of each insurance policy. Respondent shall submit such certificate and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Order, Respondent shall satisfy, or shall ensure that their contractors or subcontractors

satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing Work on behalf of Respondent in furtherance of this Order. If Respondent demonstrates by evidence satisfactory to the EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in a lesser amount, then, with respect to that contractor or subcontractor, Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

### XXIII. FINANCIAL ASSURANCE

72. In order to ensure completion of the Work, Respondent shall secure financial assurance, initially in the amount of six million dollars ("Estimated Cost of the Work"). The financial assurance must be one or more of the mechanisms listed below, in a form substantially identical to the relevant sample documents available under the "Financial Assurance-Orders" category in the Cleanup Enforcement Model Language and Sample Documents Database at <http://cfpub.epa.gov/compliance/models/>, and satisfactory to the EPA. Respondent may use multiple mechanisms if they are limited to trust funds, surety bonds guaranteeing payment, and/or letters of credit.

- a. A trust fund: (1) established to ensure that funds will be available as and when needed for performance of the Work; (2) administered by a trustee that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency; and (3) governed by an agreement that requires the trustee to make payments from the fund only when the Superfund Division Director advises the trustee in writing that; (i) payments are necessary to fulfill the affected Respondent's obligations under the Order; or (ii) funds held in trust are in excess of the funds that are necessary to complete the performance of Work in accordance with this Order;
- b. A surety bond, issued by a surety company among those listed as acceptable sureties on federal bonds as set forth in Circular 570 of the U.S. Department of the Treasury, guaranteeing payment or performance in accordance with Paragraph 76 (Access to Financial Assurance);
- c. An irrevocable letter of credit, issued by an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency, guaranteeing payment in accordance with Paragraph 76 (Access to Financial Assurance);
- d. A demonstration by Respondent that it meets the relevant financial test criteria of 40 C.F.R. § 264.143(f) and reporting requirements of this Section for the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state or tribal environmental obligations financially assured through the use of a financial test or guarantee; or
- e. A guarantee to fund or perform the Work executed by one or more of the following: (1) a direct or indirect parent company of a Respondent; or (2) a

company that has a “substantial business relationship” (as defined in 40 C.F.R. § 264.141(h)) with a Respondent; provided, however, that any company providing such a guarantee must demonstrate to EPA’s satisfaction that it meets the relevant financial test criteria of 40 C.F.R. § 264.143(f) and reporting requirements of this Section for the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee.

73. Standby Trust. If Respondent seeks to establish financial assurance by using a surety bond, a letter of credit, or a corporate guarantee, Respondent shall at the same time establish and thereafter maintain a standby trust fund, which must meet the requirements specified in Paragraph 72.a, and into which payments from the other financial assurance mechanism can be deposited if the financial assurance provider is directed to do so by the EPA pursuant to Paragraph 77 (Access to Financial Assurance). An originally signed duplicate of the standby trust agreement must be submitted, with the other financial mechanism, to the EPA in accordance with Paragraph 74. Until the standby trust fund is funded pursuant to Paragraph 77 (Access to Financial Assurance), neither payments into the standby trust fund nor annual valuations are required.

74. Within 30 days after the Effective Date, Respondent shall submit to the EPA proposed financial assurance mechanisms in draft form in accordance with Paragraph 72 for EPA’s review. Within 60 days after the Effective Date, or 30 days after EPA’s approval of the form and substance of Respondent’ financial assurance, whichever is later, Respondent shall secure all executed and/or otherwise finalized mechanisms or other documents consistent with the EPA-approved form of financial assurance and shall submit such mechanisms and documents to the Regional attorney and OSC:

Denise L. Roberts, Senior Assistant Regional Counsel  
Office of Regional Counsel  
U.S. Environmental Protection Agency - Region 7  
11201 Renner Blvd  
Lenexa, Kansas 66219

Mike Davis, On-Scene Coordinator  
Emergency Response & Removal South Branch  
U.S. Environmental Protection Agency – Region 7  
8600 NE Underground Road, Pillar 253  
Kansas City, Missouri 64161

75. If Respondent provides financial assurance by means of a demonstration or guarantee under Paragraph 71.72.d or 71.72.e, Respondent shall also comply, and shall ensure that their guarantors comply, with the other relevant criteria and requirements of 40 C.F.R. § 264.143(f) and this Section, including: (a) the initial submission to the EPA of required documents from the affected entity’s chief financial officer and independent certified public accountant no later than 90 days after the Effective Date; (b) the annual resubmission of such documents within 90 days after the close of each such entity’s fiscal year; and (c) the notification to the EPA no later than

30 days, in accordance with Paragraph 76, after any such entity determines that it no longer satisfies the financial test criteria and requirements set forth at 40 C.F.R. § 264.143(f)(1). For purposes of this Section, references in 40 C.F.R. Part 264, Subpart H, to: (1) the terms “current closure cost estimate,” “current post-closure cost estimate,” and “current plugging and abandonment cost estimate” include the Estimated Cost of the Work; (2) “the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates” mean the sum of all environmental obligations (including obligations under CERCLA, RCRA, and any other federal, state, or tribal environmental obligation) guaranteed by such company or for which such company is otherwise financially obligated, in addition to the Estimated Cost of the Work under this Order; (3) the terms “owner” and “operator” include each Respondent making a demonstration or obtaining a guarantee under Paragraph 71.72.d or 71.e and (4) the terms “facility” and “hazardous waste management facility” include the Site.

76. Respondent shall diligently monitor the adequacy of the financial assurance. If Respondent becomes aware of any information indicating that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, Respondent shall notify the EPA of such information within 30 days. If the EPA determines that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, the EPA will notify the affected Respondent of such determination. Respondent shall, within 30 days after notifying the EPA or receiving notice from the EPA under this Paragraph, secure and submit to the EPA for approval a proposal for a revised or alternative financial assurance mechanism that satisfies the requirements of this Section. Respondent shall follow the procedures of Paragraph 77 in seeking approval of, and submitting documentation for, the revised or alternative financial assurance mechanism. Respondent’s inability to secure and submit to the EPA financial assurance in accordance with this Section shall in no way excuse performance of any other requirements of this Order, including, without limitation, the obligation of Respondent to complete the Work in accordance with the terms of this Order.

77. Access to Financial Assurance.

a. If the EPA determines that Respondent (1) has ceased implementation of any portion of the Work, (2) is seriously or repeatedly deficient or late in their performance of the Work, or (3) is implementing the Work in a manner that may cause an endangerment to human health or the environment, the EPA may issue a written notice (“Performance Failure Notice”) to both Respondent and the financial assurance provider regarding the affected Respondent’s failure to perform. Any Performance Failure Notice issued by the EPA will specify the grounds upon which such notice was issued and will provide Respondent a period of 10 days within which to remedy the circumstances giving rise to the EPA’s issuance of such notice. If, after expiration of the 10-day period specified in this Paragraph, Respondent has not remedied to the EPA’s satisfaction the circumstances giving rise to the issuance of the relevant Performance Failure Notice, then, in accordance with any applicable financial assurance mechanism, the EPA may at any time thereafter direct the financial assurance provider to immediately: (i) deposit any funds assured pursuant to this Section into the

standby trust fund; or (ii) arrange for performance of the Work in accordance with this Order.

b. If the EPA is notified by the provider of a financial assurance mechanism that it intends to cancel the mechanism, and the affected Respondent fails to provide an alternative financial assurance mechanism in accordance with this Section at least 30 days prior to the cancellation date, the EPA may, prior to cancellation, direct the financial assurance provider to deposit any funds guaranteed under such mechanism into the standby trust fund for use consistent with this Section.

78. Modification of Amount, Form, or Terms of Financial Assurance. Respondent may submit, on any anniversary of the Effective Date or following Respondent's request for, and the EPA's approval of, another date, a request to reduce the amount, or change the form or terms, of the financial assurance mechanism. Any such request must be submitted to the EPA individual(s) referenced in Paragraph 74, and must include an estimate of the cost of the remaining Work, an explanation of the basis for the cost calculation, a description of the proposed changes, if any, to the form or terms of the financial assurance, and any newly proposed financial assurance documentation in accordance with the requirements of Paragraphs 71 and 72 (Standby Trust). The EPA will notify Respondent of its decision to approve or disapprove a requested reduction or change. Respondent may reduce the amount of the financial assurance mechanism, or make any other change, only in accordance with the EPA's approval. Within 30 days after receipt of the EPA's approval of the requested modifications pursuant to this Paragraph, Respondent shall submit to the EPA individual(s) referenced in Paragraph 73 all executed and/or otherwise finalized documentation relating to the amended, reduced, or alternative financial assurance mechanism. Upon the EPA's approval, the Estimated Cost of the Work shall be deemed to be the estimate of the cost of the remaining Work in the approved proposal.

79. Release, Cancellation, or Discontinuation of Financial Assurance. Respondent may release, cancel or discontinue any financial assurance provided under this Section only: (a) after receipt of documentation issued by EPA certifying completion of the Work; or (b) in accordance with EPA's written approval of such release, cancellation, or discontinuation.

#### XXIV. MODIFICATION

80. The OSC may make modifications to any plan or schedule or to the SOW in writing or by oral direction. Any oral modification will be memorialized in writing by the EPA within five days, but shall have as its effective date the date of the OSC's oral direction. Any other requirements of this Order may be modified in writing by signature of the Director, Superfund Division, Region 7.

81. If Respondent seeks permission to deviate from any approved Work Plan or schedule, Respondent's Project Coordinator shall submit a written request to the EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving approval from the OSC pursuant to Paragraph 79.

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

#### XXV. DELAY IN PERFORMANCE

83. Respondent shall notify the EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone and email to the OSC within 48 hours after Respondent first knew or should have known that a delay might occur. Respondent shall adopt all reasonable measures to avoid or minimize any such delay. Within seven days after notifying EPA by telephone and email, Respondent shall provide to EPA written notification fully describing the nature of the delay, the anticipated duration of the delay, any justification for the delay, all actions taken or to be taken to prevent or minimize the delay or the effect of the delay, a schedule for implementation of any measures to be taken to mitigate the effect of the delay, and any reason why Respondent should not be held strictly accountable for failing to comply with any relevant requirements of this Order. Increased costs or expenses associated with implementation of the activities called for in this Order is not a justification for any delay in performance.

84. Any delay in performance of this Order that, in the EPA's judgment, is not properly justified by Respondent under the terms of Paragraph 83 shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondent's obligations to fully perform all obligations under the terms and conditions of this Order.

#### XXVI. ADDITIONAL REMOVAL ACTIONS

85. Unless otherwise stated by the EPA, within 30 days of receipt of notice from the EPA that additional removal actions are necessary to protect public health, welfare or the environment, Respondent shall submit for approval by the EPA a Work Plan for the additional removal actions. The Work Plan shall conform to the applicable requirements of Section XI (Work to Be Performed) of this Order. Upon EPA's approval of the Work Plan pursuant to Section XI, Respondent shall implement the Work Plan for additional removal actions in accordance with the provisions and schedule contained therein. This Section does not alter or diminish the OSC's authority to make oral modifications to any plan or schedule pursuant to Section XXIV (Modification).

#### XXVII. NOTICE OF COMPLETION OF WORK

86. When the EPA determines, after EPA's review of the final report, that all Work has been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, including reimbursement of Response Costs, and Record Retention, the EPA will provide written notice to Respondent. If the EPA determines that any Work has not been completed in accordance with this Order, the 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 within 10 days after receipt of the EPA notice. The modified Work Plan

shall include a schedule for correcting such deficiencies. Within 10 days after receipt of written approval of the modified Work Plan, 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 Order.

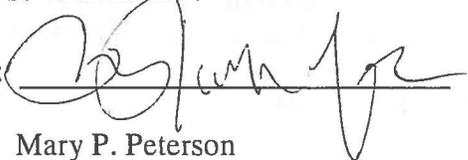
#### XXVIII. ADMINISTRATIVE RECORD

87. EPA has established an administrative record that contains the documents that form the basis for the issuance of this order. To make an appointment to review the administrative record, please contact Melissa Yocum, U.S. Environmental Protection Agency - Region 7, 11201 Renner Boulevard, Lenexa, Kansas 66219 or at (913) 551-7061.

#### XXIX. SEVERABILITY

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

It is so ORDERED.

BY: 

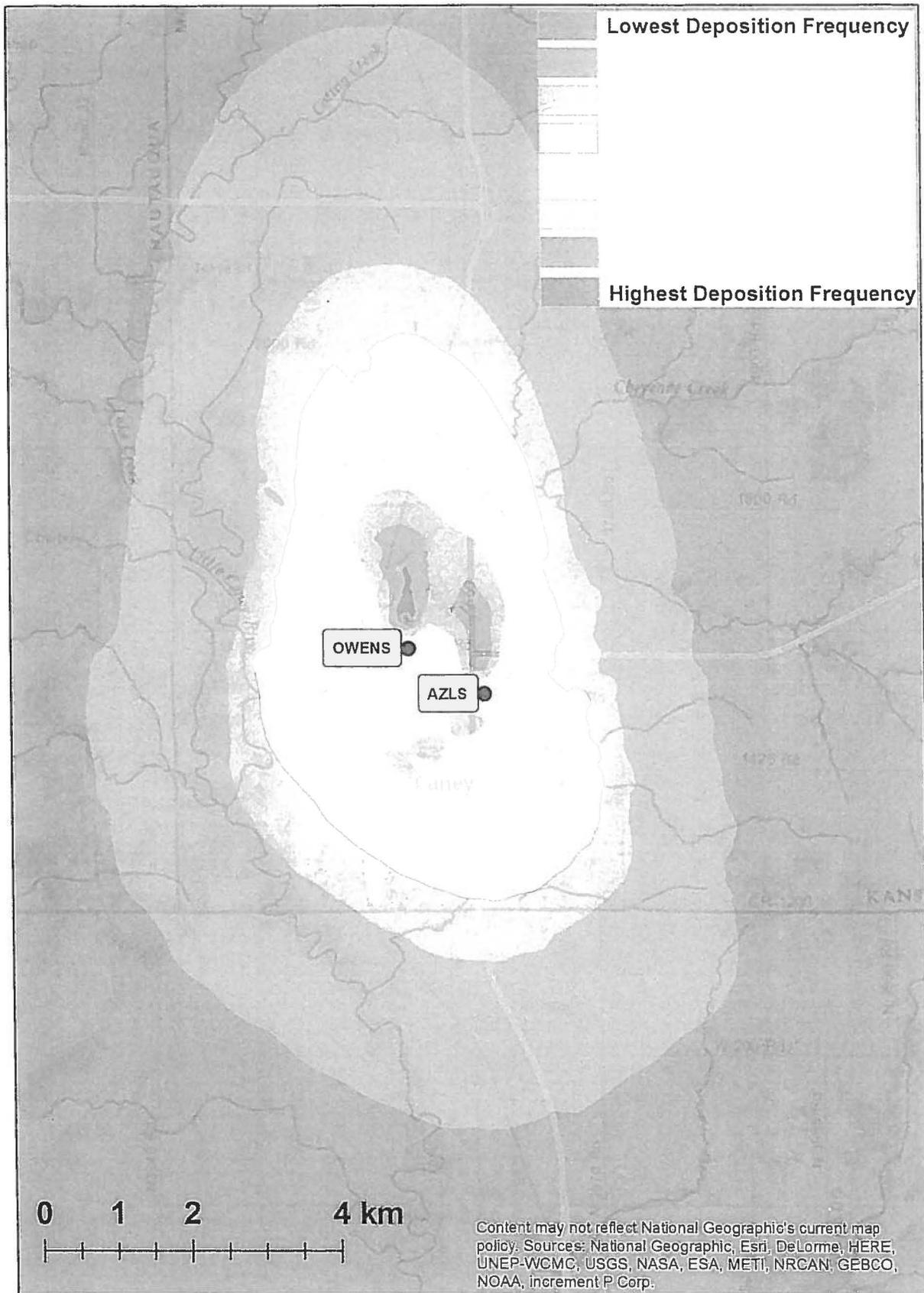
Mary P. Peterson  
Director  
Superfund Division

DATE: 8-4-16

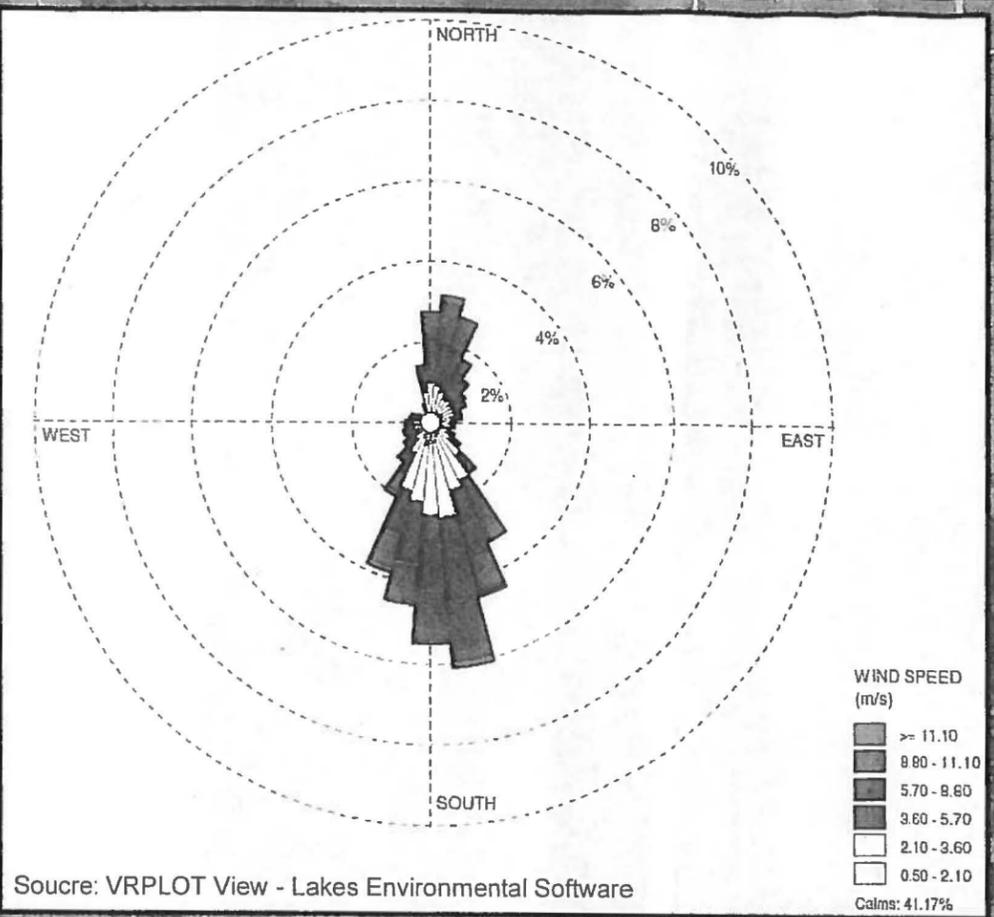
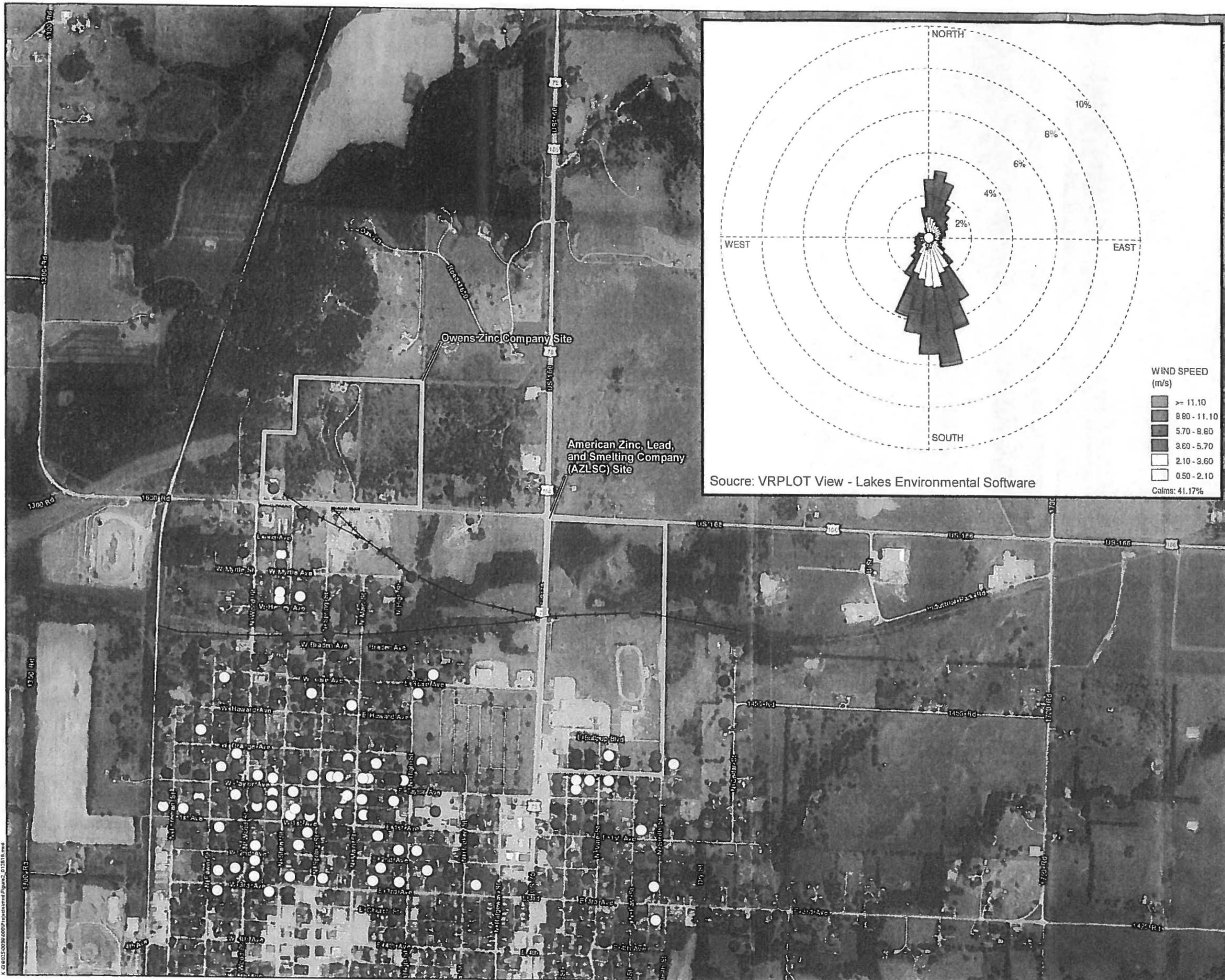
---

# Attachment A

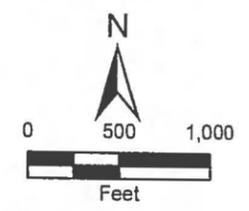








- Legend**
- Indicates property with no sampled cell exceeding 400 mg/kg of lead (including drip zone and/or road easement)
  - Indicates property with sampled cell exceeding 400 mg/kg of lead (just in drip zone and/or road easement)
  - Indicates property with at least one sampled cell exceeding 400 mg/kg of lead (excluding drip zone and/or road easement)
  - Railroad
  - ▭ Property of interest
  - m/s Meters per second
  - mg/kg Milligrams per kilogram



Source ESRI, ArcGIS Online, World Basemap, 2010

Caney Residential Yards Site  
Caney, Kansas

**Figure 2**  
Site Layout Map





---

# Attachment B



**ACTION MEMORANDUM**

**SUBJECT:** Request for a Time-Critical Removal Action and Emergency Exemption from the 12-Month and \$2 Million Statutory Limits at the Caney Residential Yards Site, Montgomery County, Kansas

**FROM:** *for* Michael B. Davis, On-Scene Coordinator  
Planning and Preparedness South Section

**THRU:** *for* Adam Ruiz, Chief  
Planning & Preparedness South Section  
Kenneth S. Buchholz, Acting Chief  
Emergency Response & Removal South Branch

**TO:** Mary P. Peterson, Director  
Superfund Division

Site ID#: B7A3

**I. PURPOSE**

The purpose of this Action Memorandum is to request and document approval and funding of the proposed removal action, and request an emergency exemption from the 12-month and \$2 million statutory limit(s) on removal actions for the Caney Residential Yards Site (Site). This removal action will provide for excavation and removal of soils that exceed 400 parts per million (ppm) at residential properties, schools, and day care facilities in Caney, Kansas. This site-specific residential soil removal action level for lead is based on exposure to young children (< 84 months), calculated using the Integrated Exposure Uptake Biokinetic Model (IEUBK), because the Site will not be placed on the National Priorities List (NPL) and long-term remedial work is not anticipated at the Site.

The primary objective of this action is to eliminate or reduce potential ingestion exposure due to the presence of lead and other heavy metals in soils at the Site. The proposed actions satisfy the criteria for removal actions under section 300.415(b)(2) of the National Contingency Plan (NCP). This action also meets the emergency criteria for exemption from statutory limits of removal actions of section 104(c)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9604(c)(1). It is necessary because the EPA needs to eliminate or reduce potential ingestion exposure due to the presence of lead and other heavy metals in soils at the Site. It is anticipated that the excavation of affected residential properties will extend beyond the 12-month statutory limit for removal actions and conducted in a phased approach as funding allows.

H: SUPR/ERNB /Buchholz\ 2016\ Caney Residential Yards Action Memo

PPSS	PPSS	ERSB	CNSL	CNSL	SUPR	SUPR	SUPR
M. Davis	Ruiz	Buchholz	Roberts	Sanders	Bishop	Jackson	Peterson
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>			
			7/29/16	8/5 7/28/16			

## II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID#: KSN000706287  
SSID #: B7A3 (RV00)  
REMOVAL CATEGORY: Time-Critical  
NATIONALLY SIGNIFICANT: No

### A. Site Description

#### 1. Removal site evaluation

The Site consists of areas of high concentrations of lead contamination from historical smelting operations in the City of Caney, Kansas. The U.S. Environmental Protection Agency (EPA) and the Kansas Department of Health and Environment (KDHE) have documented high levels of heavy metal contamination in soils and waste at the Site. Two former lead and zinc smelter facilities are located in Caney, KS. The site includes properties near the Owen Zinc site and the American Zinc, Lead and Smelting (AZLS) site. The AZLS site (EPA ID # KSD984971986) was the subject of a potentially responsible party (PRP) non-time critical removal action that was completed in 2000 with EPA oversight. The removal action documentation for the AZLS site is available in the EPA administrative record. The Owen Zinc site (KDHE ID # C306300193) was the subject of a PRP-lead cleanup under KDHE oversight, which was completed in 2004.

In response to a citizen complaint, KDHE conducted an Integrated Site Evaluation (“ISE”) in February 2013, to determine if hazardous substances were present at a residential property on North State St., which is directly south of the Owens Zinc Site. KDHE’s sampling identified elevated levels of lead in surficial soil at the residence. KDHE determined that a soil removal action was warranted and, in a letter dated March 15, 2015, KDHE referred the Site to EPA for a time-critical removal action consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

In June 2015, EPA initiated a Removal Site Evaluation (RSE) to resample the property on North State St. in accordance with the Superfund Lead Contaminated Residential Sites Handbook (OSWER 9285.7-50), and with the EPA Standard Operating Procedure 4230.19A entitled Soil Sampling at Lead-Contaminated Residential Sites. The EPA sampled additional properties in an effort to determine the extent to which lead contamination is present in residential yards proximal to historic smelter facilities in Caney. During the RSE, EPA sampled surficial soil at 278 residences located near former smelting operations. The sampling results identified eighty-one (81) of the residential properties had at least one soil sample that exceeded 400 parts per million (ppm) for lead. An additional fifty-nine (59) properties had lead contamination only in the “drip zone,” or the immediate perimeter around the house or other building on the property. Several properties along the boundaries of the target sampling area had at least one soil sample that exceeded 400 ppm lead, so additional residential sampling will be required to delineate the extent of contamination. Approximately 150 properties have not been screened because the residents denied access or were unable to be contacted. An additional 86 properties were vacant during the RSE, and must be sampled when ownership is determined and access is obtained. The EPA will continue efforts to assess these properties, in addition to expanding the target assessment area to delineate the extent of contamination as discussed.

## **2. Physical location**

The Caney Residential Yards site is located in and around Caney, Kansas, in the southwestern corner of Montgomery County. According to the 2013 Census, the population of Caney was 2,140, making it the fourth most populous city in Montgomery County. The county seat is located in Independence, Kansas. The former AZLS smelter is located on the east side of Caney, and the former Owens Zinc smelter is located on the north. Caney gets its name from the Little Caney River, which is located east of the City and flows south into Copan Lake, just across the border in Copan, Oklahoma.

## **3. Site characteristics**

The discovery and use of natural gas in the early 1900s led to the development of zinc and lead smelting operations in southeast Kansas. Caney was founded in 1869, and grew quickly due to discovery of substantial natural gas supplies. Inexpensive natural gas brought energy intensive businesses to Caney in the early 1900's, including smelters, brick factories, and glass works, until gas pressures began to drop significantly in 1911-1912, and Caney industries began to close. The smelter operations continued until approximately 1920, as American Zinc and Lead Smelting Company was, at the time, a fully integrated mining and smelting company with operations across the Tri-State Mining District (Kansas, Missouri, and Oklahoma). Smelter waste (i.e., slag, ash, retort debris, etc.) can still be seen at the surface in areas proximal to the former smelters in Caney. Areas immediately to the south and west of the former Owens Zinc smelter and AZLS smelter, respectively, are primarily residential and commercial.

## **4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant**

Lead, a hazardous substance as defined by Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, has been released into the soil at the Site. The term "release," as defined in CERCLA Section 101(22), means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.

The primary contaminants of concern at this Site are lead and lead compounds. The EPA evaluated the potential bioavailability of six surface soil samples from across the Site in June 2006. More specifically, an in vitro bioaccessibility assay (IVBA) was performed to characterize the relative bioavailability (RBA) of lead in surface soil. The reported bioaccessibility results range from 67% to 86%. These results were used in the IEUBK to develop a site specific cleanup goal for soil. A removal response for residential properties exceeding 400 mg/kg is necessary due to the likely elevated bioavailability of lead in surface soil which presents an imminent and substantial endangerment to children residing at or frequenting residential properties. This level is consistent with the guidance discussed in the EPA's Office of Solid Waste and Emergency Response (OSWER) "Superfund Lead-Contaminated Residential Sites Handbook," dated August 2003.

The EPA has currently identified approximately 81 residential properties which exceed the action level of 400 mg/kg and will be included in the removal action. A residential property is defined in the "Superfund Lead Contaminated Residential Sites Handbook" OSWER 9285.7-50, page 19 (August 2003), as any area with high accessibility to sensitive populations, and includes properties containing single- and multi-family dwellings, apartment complexes, vacant lots in residential areas, schools,

daycare centers, community centers, playgrounds, parks, green ways, and any other areas where children may be exposed to site-related contamination media. The Handbook defines sensitive populations as young children (those under the age of seven, who are most vulnerable to lead poisoning) and pregnant women.

**5. NPL Status**

The Site was evaluated for inclusion on the National Priorities List (NPL). A Remedial Assessment Decision was completed on March 24, 2015, indicating that no further remedial action is planned because the Site does not qualify for listing on the NPL.

**6. Maps, pictures and other graphic representations**

A map of the Site depicting historical smelter facilities and impacted residential properties is attached. All sampling data has been compiled in a web-based geographic information system which may be accessed online, through a password protected portal at <https://epa.maps.arcgis.com/home/signin.html>.

**B. Other Actions to Date**

**1. Previous actions**

See subparagraph III.A.1 above, "Removal Site Evaluation."

**2. Current actions**

There are no current EPA removal actions occurring at the Site. Removal assessment activities are ongoing and will continue during this removal action. All additional site-sampling activities will be conducted in accordance with the approved Quality Assurance Project Plan.

**C. State and Local Authorities' Roles**

**1. State and local actions to date**

The EPA is closely coordinating with KDHE. KDHE, EPA, and the Agency for Toxic Substances and Disease Registry (ATSDR) are communicating regularly on issues concerning the Site. EPA has coordinated closely with Caney City officials on a wide variety of issues related to the assessment and proposed removal actions at this Site, and continue to coordinate closely with local officials, State and Federal partners, and affected residents.

**2. Potential for continued state/local response**

State and local authorities have indicated that they lack the resources to conduct the response action provided for herein at the Site.

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

**A. Threats to Public Health or Welfare**

Section 300.415(b) of the NCP provides that the EPA may conduct a removal action when it determines that there is a threat to human health or welfare or the environment based on one or more of the eight factors listed in 40 CFR § 300.415(b)(2). The factors that justify a removal action at the Site are outlined as follows:

**300.415(b)(2)(i) -- Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, or pollutants, or contaminants.**

Elevated concentrations (greater than 400 ppm) of lead have been found within 100 feet of residential locations at the Site. Children playing in and around the contaminated areas have the highest potential to be exposed.

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. Alcohol and physical exertion may precipitate these symptoms. The radial nerve is affected most severely causing weakness in the hands and wrists. 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 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 pre-term delivery. Reproductive effects in men include erectile dysfunction, decreased sperm count, abnormal sperm shape and size, and reduced semen volume. Lead exposure is associated with increases in blood pressure and left ventricular hypertrophy. A significant amount of lead that enters the body is stored in 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, and impaired hearing acuity.

**300.415(b)(2)(iv) – High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.**

Lead has been detected in surface soils above the proposed removal action level of 400 mg/kg for residential properties. Lead-contaminated soils may migrate via airborne dusts, surface runoff, percolation into groundwater, construction activity, by children transporting soils/dusts into their homes after playing in the affected areas, and tracked in by foot.

**300.415(b)(2)(v) –Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.**

Lead contaminated soils exist at the surface. High winds will cause the lead contaminated dust to migrate and excessive precipitation will result in the erosion and run-off of lead contaminated soils from this site. These weather related factors will result in more extensive contamination of residential properties, creeks and streams.

**300.415(b)(2)(vii) – The availability of other appropriate federal or state response mechanisms to respond to the release.**

The EPA has explored other mechanisms to respond to this release of hazardous substances at the Site and none have been identified.

**IV. ENDANGERMENT DETERMINATION**

The actual release of hazardous substances at and from the Site, if not addressed by implementing the removal action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

**V. EXEMPTION FROM STATUTORY LIMITS**

There is an immediate risk to public health or welfare or the environment. This response action includes excavating contaminated soils in yards, thereby reducing the potential for exposure to lead. Although excavation and replacement of soils can occur quickly, restoration activities at similar NPL lead smelting sites have taken longer than 12 months to complete. Of the 278 properties sampled thus far, 81 properties have been identified that meet the removal action criteria of this Memorandum, which comprises approximately 29% of the properties sampled. Approximately 150 properties within the current target assessment area remain to be screened, and the target assessment area will be expanded southward as part of this action. Based upon cost accounting at other lead smelting sites and the number of properties which can reasonably be anticipated to exceed the removal action criteria at this Site, the total cost is expected to exceed \$2 million.

Continued response actions are immediately required to prevent, limit, or mitigate an emergency. If funding is not provided, these threats will not be addressed and residents will continue to be exposed to high lead concentrations that could lead to adverse health effects.

Assistance will not otherwise be provided on a timely basis. Neither the state of Kansas, the county, nor the local governments have the response authority and/or resources to implement the described actions. The high lead levels found in residential soils in this area require an immediate response to address the health risks posed to the residents.

The above conditions satisfy the criteria for an emergency exemption from the 12-month and \$2 million statutory limits on removal actions, and should be granted in order to immediately provide response actions.

**VI. PROPOSED ACTIONS AND ESTIMATED COSTS**

**A. Proposed Actions**

**1. Proposed action description**

**SOIL/WASTE EXCAVATION, REMOVAL, AND REPLACEMENT**

The proposed action involves excavation and removal of lead-contaminated soil, backfilling the excavated area to original grade with clean topsoil, and restoring a grass lawn at the properties. The

removal action will consist of removal and proper disposal of soil and/or waste containing lead concentrations greater than 400 mg/kg from residential properties, and high child impact areas such as schools and daycare facilities where a composite sample exceeds a concentration of 400 mg/kg. Removal and proper disposal of contaminated soil which exceeds the action level is necessary due to the likely elevated bioavailability of lead in surface soil which presents an imminent and substantial endangerment to children residing at or frequenting residential properties. This level is consistent with the guidance discussed in the EPA's OSWER "Superfund Lead-Contaminated Residential Sites Handbook," OSWER 9285.7-50 (August 2003).

EPA will excavate all soil exceeding 400 mg/kg in yards, excluding drip zones if the drip zone is the only portion of the property which is contaminated above the removal action level. Excavation will continue until the lead concentration measured at the exposed surface of the excavation is less than 400 mg/kg in the initial foot from the original surface, or less than 1,200 mg/kg at depths greater than one foot. The excavation will terminate at less than 12 inches if a residual soil concentration less than 400 mg/kg lead is measured within the initial foot of excavation. Soils in garden areas will be excavated until reaching a residual lead concentration less than 400 mg/kg in the initial two feet from the original surface, or less than 1,200 mg/kg at depths greater than two feet. Creation of raised-bed gardens may be considered as an option for remediation of garden areas where removal of contaminated soil to achieve cleanup criteria is not practicable.

After confirmation sampling has verified that cleanup goals have been achieved, excavated areas will be backfilled with non-contaminated clean soil to original grade and re-vegetated. Clean soil must contain lead concentrations below 100 mg/kg and all other hazardous substances, pollutants, or contaminants at concentrations below residential soil-screening levels prescribed in EPA's Regional Screening Levels (RSLs), which can found at: <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016>. Final site restoration will include the placement of sod on selected properties for up to ¼ acre of disturbed soil, and hydro-seed on other properties and everything in excess of ¼ acre of disturbed soil.

Soil sampling performed to guide response decisions will be done in accordance with procedures described in the "Superfund Lead-Contaminated Residential Sites Handbook," OSWER # 9285.7-50 (August 2003). Residential yards will be divided into a number of sections and one multi-aliquot composite sample will be collected from each section. Soil samples will generally be analyzed for lead content using XRF spectroscopy. A representative number of samples will be sent off site for laboratory confirmation analysis in accordance with quality assurance/quality control plans. Sample results will be compared to appropriate soil action levels.

#### SOIL TREATMENT AND DISPOSAL

Soil will be analyzed for total lead concentrations and additionally samples will be tested using the Toxicity Characteristic Leaching Procedure (TCLP), according to the requirements of SW-846-Chapter 9 (representative sampling for waste piles), to gain a representative characterization of all excavated soils acceptable for disposal. Excavated non-hazardous soils meeting the threshold criteria prescribed by KDHE and the receiving facility will be transported to a RCRA Subtitle D landfill and used as cover. Any soils that exceed the TCLP-determined upper limit soil concentration will be treated prior to transport to the landfill, or disposed as hazardous waste at a RCRA Subtitle C disposal facility. Transportation, treatment, storage, and disposal of the excavated material shall be in accordance with all applicable local, state, or federal requirements, including the EPA's Off-Site Rule.

## 2. Contribution to remedial performance

No remedial action is contemplated for the Site. In the event that the Site is listed on the NPL, it is expected that the response provided for herein will contribute to remedial performance, or not adversely affect any future remedial performance for the Site.

## 3. Description of alternative technologies

On-site treatment or in situ stabilization technologies are not feasible for this Site due to the nature of the contamination. Off-site disposal of wastes is the most cost-effective and viable removal alternative.

## 4. Applicable or Relevant and Appropriate Requirements (ARARs)

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP), at 40 CFR § 300.415, requires that removal actions shall, to the extent practicable and considering the exigencies of the situation, attain ARARs under federal environmental, state environmental or facility-siting laws. The following ARARs have been identified as being potentially applicable for this action:

### Federal

- Subtitle D of RCRA, Section 1008, and Section 4001, *et seq.*; 42 U.S.C. § 6941, *et seq.*; State or Regional Solid Waste Plans and implementing federal and state regulations.
- Occupational Safety and Health Act, 29 C.F.R. Part 1910, will be applicable to all actions.
- Subtitle C of RCRA, 42 U.S.C. Section 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 heavy metals from releases as a result of smelter operations at the facility or from surrounding smelter operations, particularly if this soil exceeds the TCLP regulatory threshold.
- 40 C.F.R. Parts 50.6 and 50.12, Clean Air Act, National Ambient Air Quality Standards, are the national ambient air quality standards for air quality pertaining to particulate matter. Engineering controls will be used at this Site to achieve those standards.

### State

The EPA requested potential state ARARs from KDHE. Any identified potential ARARs will be evaluated and complied with to the extent practicable.

## 5. Project schedule

It is expected that this action will begin in September 2016. The conduct of on-site activities is dependent on the property owners' consent to access.

**B. Estimated Costs**

The costs associated are estimated as follows:

Extramural Costs

Removal Costs	\$3,342,100
Extramural Cost Contingency (20 percent)	\$ 668,420
Removal Ceiling	\$4,010,520

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Refer to the enforcement section for a breakout of these costs.

**VII. ENFORCEMENT**

See the Confidential Enforcement for this Site. For NCP consistency purposes, it is not a part of this Action Memorandum. The total EPA costs for this removal action based on full cost-accounting practices are estimated to be:

Direct Extramural Costs	\$ 4,010,520
Direct Intramural Costs:	150,000
EPA Indirect Costs (50.21 percent of all costs)	<u>2,088,997</u>
Total Project Costs	\$ 6,249,517

Direct costs include direct extramural 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 prejudgment 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.

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

The actions proposed herein for the Site should be taken immediately. Should these actions be delayed, the potential threats to human health and the environment will continue and increase.

**IX. OUTSTANDING POLICY ISSUES**

None.

**X. RECOMMENDATION**

This decision document represents the selected removal action for the Site. This removal action was developed in accordance with CERCLA, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Conditions at the Site meet the NCP criteria for a removal action, as set forth in 40 CFR § 300.415(b), and I recommend your approval of the proposed removal action and exemption from the 12-month and \$2 million statutory limit on removal actions. The removal ceiling, if approved, will be \$4,010,520. This amount comes from the Regional Removal Advice of Allowance.

Approved:

\_\_\_\_\_  
Mary P. Peterson, Director  
Superfund Division

\_\_\_\_\_  
Date

Attachment: Site location map

DRAFT

---

# Attachment C



**Statement of Work  
Removal Action**

**Unilateral Administrative Order  
Caney Residential Yards Site  
Caney, Montgomery County, Kansas**

**PURPOSE**

This Removal Action Statement of Work (SOW) sets forth removal action requirements for the Caney Residential Yards Site (Site). This SOW is an appendix to and is incorporated as part of the Unilateral Administrative Order (Order).

**BACKGROUND & OBJECTIVES**

The Site is located in the northwestern portion of Caney, Montgomery County, Kansas 67333. The Site includes properties near the Owen Zinc site and the American Zinc, Lead and Smelting (AZLS) site. The AZLS site (EPA ID # KSD984971986) was the subject of a potentially responsible party (PRP) non-time critical removal action that was completed in 2000 with EPA oversight. The removal action documentation for the AZLS site is available in the EPA site administrative record. The Owen Zinc site (KDHE ID # C306300193) was the subject of a PRP-lead cleanup under KDHE oversight, which was completed in 2004.

In response to a resident's complaint in 2013, KDHE conducted an Integrated Site Evaluation (ISE) in February 2013, to determine if hazardous substances were present at a residential property on North State St., which is directly south of the Owens Zinc Site. KDHE's sampling identified elevated levels of lead in surficial soil at the residence. KDHE determined that a soil removal action was warranted and, in a letter dated March 15, 2015, KDHE referred the Site to the EPA for a time-critical removal action consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

In June 2015, EPA and START initiated a Removal Site Evaluation (RSE) to resample the property on North State St. in accordance with the Superfund Lead Contaminated Residential Sites Handbook (OSWER 9285.7-50), and with the EPA Standard Operating Procedure 4230.19A entitled Soil Sampling at Lead-Contaminated Residential Sites. The EPA sampled additional properties in an effort to determine the extent to which lead contamination is present in residential yards proximal to historic smelter facilities in Caney. During the RSE, the EPA sampled surficial soil at 278 residences located near former smelting operations. The sampling results identified 66 of the residential properties had at least one composite soil sample that exceeded 400 parts per million (ppm) for lead. Several properties along the southernmost extent of the target sampling area had at least one composite soil sample that exceeded 400 ppm lead, so additional residential sampling will be required to assess these areas. Additional properties within the existing assessment area have not been screened because the lots were vacant, the residents denied access or contact with the resident(s) was not made. The EPA will continue efforts to access these properties as well. Sampling will be conducted by the EPA and/or Respondents to delineate the extent of contamination from historical smelting operations in residential yards as described below.

As contaminated residential properties are identified, the primary objective of this SOW is excavation and removal of lead-contaminated soil and smelter waste from these properties, backfilling the excavated area to original grade with clean topsoil, and restoring the grass lawn, gravel driveways, and any other pre-existing features which are disturbed during the course of the removal action. The removal action will consist of removal and proper disposal of contaminated soil and/or smelter waste containing lead concentrations greater than 400 mg/kg from residential properties, high child impact areas such as schools and daycare facilities where a composite sample exceeds a concentration of 400 mg/kg, and residential properties where a child with a blood lead level greater than 10 µg/dl resides and soil contains lead concentrations over 400 mg/kg. Removal and proper disposal of contaminated soil which exceeds the action level is necessary due to the likely elevated bioavailability of lead in surface soil which presents an imminent and substantial endangerment to children residing at or frequenting residential properties. This level is consistent with the guidance discussed in the EPA's OSWER "Superfund Lead-Contaminated Residential Sites Handbook," OSWER 9285.7-50 (August 2003).

## **WORK PLAN**

Within thirty days of the Effective Date of the Order, Respondent shall prepare and submit for EPA review and approval a Removal Action Work Plan (Work Plan) that describes the soil characterization, removal, and disposal activities, and an expeditious schedule for completion of those activities. The project schedule should, preferably, be submitted in the form of a Gantt Chart. The Work Plan shall address the objectives and tasks of the removal action described in this SOW, and shall include a Field Sampling Plan (FSP), if applicable, a Quality Assurance Project Plan (QAPP), and Health and Safety Plan (HASP) in accordance with the terms of the Order.

## **ADDITIONAL SAMPLING**

Sampling at a number of properties at the Site has been completed. However, additional areas require sampling as discussed in preceding sections of this SOW, and in the EPA's Action Memorandum. The EPA will continue sampling residential properties, and as additional contaminated properties are identified, the sampling results, field sheets, and other supporting documentation will be provided to the Respondent. The Respondent shall maintain an accounting of all contaminated properties identified by the EPA and the Respondent, if applicable, will expeditiously schedule soil removals at these properties. If any sampling of residential properties is to be completed by the Respondent, Respondent shall submit a detailed Field Sampling Plan (FSP) as stipulated in the Order. Sampling activities in the FSP shall meet the following objectives.

### **Access Agreements**

Prior to conducting any sampling activities at any property, access must be obtained from the property owner or designated administrator; access obtained from tenants or renters is not sufficient. It is recommended that access to schools and daycares be obtained by correspondence and access to residential properties be obtained by going door to door. The EPA may provide assistance in obtaining access if requested by the Respondent. The EPA has utilized Geographic Information System (GIS) parcel layers and a GIS-based mapping application to identify property addresses, property owners and parcel boundaries during previous sampling. Access agreements, sampling results and other documentation may also be electronically linked to each property using this mapping application. The EPA may provide access to this application if requested by the Respondent.

## Field Sheets / Site Sketches

Field sheets shall be generated at each location selected to be evaluated. The field sheet should record all of the relevant information related to the property. A figure representing permanent features (houses, outbuildings, sidewalks, driveways, etc) at the property should be drawn. The figure shall be drawn to sufficient scale that accurate removal estimates can be calculated. Sample area boundaries shall be based off permanent fixtures at the site. The field sheet shall contain, at minimum, the date sampled, the property address, owner contact information, resident contact information (if different from the owner), and Global Positioning System (GPS) derived coordinates in decimal degrees in addition to analytical results from soil samples.

## Sampling Locations

Sampling shall occur in general accordance with the Superfund Lead Contaminated Residential Sites Handbook (08/03); the U.S. EPA Standard Operating Procedure 4230.19A Soil Sampling at Lead-Contaminated Residential Sites (07/07); the U.S. EPA Standard Operating Procedure 4220.03A Protocol for the Region 7 Lead-Contaminated Residential Yard Soil Cleanup Actions Procedures and Sequencing (06/07); the U.S. EPA Generic Quality Assurance Project Plan for Region 7's Superfund Lead-Contaminated Sites (06/07); as well as the site specific QAPP discussed previously.

The sampler should observe the area to be sampled. Level sites or raised areas in otherwise un-level terrain may suggest an area of fill. Barns or outbuildings large enough to house vehicles or machinery may have a gravel drive leading to the structures which, if not visible, may have been covered by vegetation. Material inside child play areas should be sampled regardless of distance from the house. Garden areas should be sampled as separate cells within the property. The sampler should be familiar with the type of smelter debris in the area as well as what area smelter debris looks like. Any suspected smelter debris on a property should be sampled separately. Samples will be collected, at a minimum, in the following locations.

## Residential Yards

When sampling residential lots with a total surface area less than 5,000 square feet (a typical urban lot size), a nine point composite sample should be collected from 0 to 1 inch in each of the following locations: the front yard, the back yard and the side yards (if the size of the latter is substantial). The front, back and side (if needed) yard composites should be equally spaced within the respective portion of the yard, and should be outside of the drip zone and away from influences of any other painted surfaces. Attention shall be given to areas within the former railspur leading to the former AZLS smelter and connecting the AZLS smelter to the Owens Zinc smelter.

For residential yards with a total surface area greater than 5,000 square feet, the minimum number of samples areas shall be four. The two sample areas in the front yard should encompass one half of the side yard; likewise for the two quadrants in the back yard. One nine-point composite of aliquots collected at equal spacing and from the same depth interval (0 to 1 inch) should be obtained from each sample area. Each aliquot should be collected away from influences of the drip zone and any other painted surfaces.

## Gravel Drives

Gravel driveways shall be treated as a separate sample area (cell). A nine-point composite of aliquots shall be collected in each separate driveway area from the 0 to 2 inch intervals. It may be necessary, and the OSC may direct, to divide driveways into multiple sample areas should it be determined that different types of construction materials are present.

## Soils in Play Areas, Gardens, and Street/Alley right-of ways

Distinct play areas and gardens, if present, should generally be sampled separately as discrete areas of the yard. Collection of right-of-way/easement composites would be appropriate at this site. It will not be necessary to sample paved surfaces. However, breakdown by-products of paved surfaces should be sampled. For instance, liberated aggregate material from poorly maintained asphalt may be a likely source for lead contamination in the yard.

## Sampling Methods and Analysis

### Quality Assurance

If any sample analysis is conducted utilizing x-ray fluorescence (XRF) instrumentation, no less than 10% of the cells throughout the project shall be submitted for standard laboratory analysis for QA purposes. Each aliquot of soil will be collected from the 0 to 1 inch depth interval and placed into a clean container, such as a stainless steel bowl or plastic bag, and thoroughly mixed or homogenized. After mixing, the composite sample will be sieved using a Number 10 sieve unless it is determined to contain more than 20% moisture. Remaining sample volume will be disposed with the excavated contaminated soil.

### Collection

Composite samples should consist of discrete aliquots of equal amounts of soil. If an organic layer is present above the soil, the duff litter grass and roots will be removed. The soil from each aliquot should be collected with a clean stainless steel spoon or trowel and placed into one clean container.

### Depth Sampling

Depth sampling at intervals from 0-12" and 12-24" will be conducted in approximately 10% of residential yards within areas of observed contamination.

### Sample Preparation

Composite samples should be mixed thoroughly without mechanically grinding or pulverizing the sample. Samples shall not be forced through the sieve, as this changes the physical structure of the soil and may bias the analytical results, e.g. increase the surface area of galena present in the sample. Samples may be crushed by hand to aid in the sieving process. The sample shall be dried until it reaches no greater than 20% moisture. Samples shall be sieved with a #10 (2 millimeter) stainless steel mesh sieve. After drying, sieving and homogenizing the final sample matrix, it shall be analyzed with a FP-XRF and/or sent to the laboratory.

## Sample Shipping and Chain of Custody

Respondent shall only use nationally accredited laboratories. Each sample will have a unique identification number in accordance with EPA Sample Naming Scheme. Each property has been given a specific ID that is provided by the EPA. Property IDs include a designated number that is unique to each property.

The sampling cell of the yard where the sample was taken will be indicated by the following:

- Cell 1 = C1
- Cell 2 = C2
- Cell 3 = C3
- Cell 4 = C4
- etc.

## DECONTAMINATION

### Decontamination Procedures for Sampling Equipment

Equipment (spoons, sieves, trowels, augers, spades, boring equipment) used to collect or process samples shall be decontaminated between composite samples by wiping clean (dry decontamination procedures) or washing in a soap solution (such as Alconox).

### Investigation-Derived Wastes

Used personal protective equipment and field disposables will be bagged and disposed of in accordance with applicable laws and regulations. Soil sample remnants will be combined and sampled to determine whether the soil exhibits a characteristic of hazardous waste for toxicity as defined in 40 C.F.R. 261 Subpart C, or may be combined with excavated materials.

## TIME-CRITICAL REMOVAL ACTIONS

### General Removal Action Requirements

Respondents shall undertake the removal actions discussed in this Section where the results of the RSE and any additional sampling conducted by EPA or by the Respondent document residential yards or areas where children congregate with soil exceeding the specified action levels of 400 mg/kg. The removal actions shall be performed by Respondents in accordance with the schedule in the approved Removal Action Work Plan, and in accordance with the Action Memorandum prepared by the EPA.

### Pre-Excavation Organization and Documentation

Respondent shall organize excavation locations with the greatest amount of work efficiency, i.e., work addresses close together to reduce movement of equipment, while prioritizing excavations at properties where young children (those under the age of seven, who are most vulnerable to lead poisoning) and/or pregnant women currently reside.

Respondent shall ensure that a signed access agreement is in place with each property owner prior to initiating any removal activities, including pre-excavation activities such as utility locates. Respondent shall schedule an official site walk with the property owner, and provide a minimum seven days advance notice to the EPA OSC or designated representative. In general the OSC or a designated representative will accompany the Respondent on all pre-excavation and post-excavation site walks.

### Soil Excavation and Removal

Utilizing the field sampling data, field sketches, and input or direction from the OSC, Respondents shall excavate all soil exceeding 400 mg/kg total lead in surface soils. Excavation will continue until the lead concentration measured at the exposed surface of the excavation is less than 400 mg/kg in the initial 12 inches from the original surface, or less than 1,200 mg/kg at depths greater than 12 inches. The excavation may terminate at less than 12 inches if the OSC determines and notifies Respondent that a residual soil concentration less than 400 mg/kg lead is measured within the initial 12 inches of excavation. If at 12 inches below ground surface, an average concentration of 1,199 milligrams per kilogram (mg/kg) lead or less is achieved, the excavation will cease in the designated sample area. If an average concentration of 1,200 mg/kg lead or greater is reported, excavation shall continue to 24 inches below ground surface. Soils in garden areas will be excavated until reaching a residual lead concentration less than 400 mg/kg in the initial 24 inches from the original surface, or less than 1,200 mg/kg at depths greater than 24 inches. The EPA or a designated representative may monitor concentrations of each sample area as excavations progress using a field portable XRF. If the average concentration is greater than or equal to 1,200 mg/kg lead at 24 inches, a bright, durable, permeable barrier shall be placed over the contaminated material that is intended to remain, and the excavation will be backfilled.

Care should be taken to avoid contacting and damaging utilities. Consideration shall be given to stability of sidewalks and structures. Tapering away (maximum of 1:1 slope) from the street, sidewalk and house is the general method utilized to avoid damage to these features. Care should be taken around trees, shrubbery and landscaping that are to remain in the sample area so as the root balls of the plants are not damaged. All damage shall be properly documented, reported and promptly repaired.

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, the EPA determines that visible emissions of dust are present, the EPA may modify this SOW 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.

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.

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. Haul routes shall be pre-determined, and Respondent shall adhere to any pre-determined haul routes.

Respondent shall ensure that 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.

Respondent shall exercise care so contaminated material is not spread onto non-contaminated areas. Any spillage or track-out shall be cleaned up immediately and reported promptly to the OSC. Water or other rinsing agents shall not be used to aid in the removal of contaminated material that has been tracked out of the work area.

Respondent shall ensure safe access for all residents to their residences during the course of the removal action. Should a situation arise where any member of the general public might disregard warning barriers or signs, those instances shall be reported to the OSC immediately.

Excavated areas shall be immediately filled once it is determined that the action levels described in this SOW have been met. All work areas shall be visibly marked and secured at the end of each work day. Respondent must ensure that weather conditions do not hinder access to pre-approved clean fill.

All trucks transporting lead contaminated or clean material shall be fully covered.

Any equipment being switched from use in a contaminated work zone to use in a clean work zone shall be wet decontaminated and inspected by the Respondent prior to switching roles.

#### Soil Treatment and Disposal

Excavated soil shall be analyzed for total lead concentrations, and additionally samples will be tested using the Toxicity Characteristic Leaching Procedure (TCLP), according to the requirements of SW-846-Chapter 9 (representative sampling for waste piles), to gain a representative characterization of all excavated soils acceptable for disposal. Excavated non-hazardous soils meeting the threshold criteria prescribed by KDHE and the receiving facility shall be transported to an appropriately permitted RCRA Subtitle D landfill. Any soils that exhibits a characteristic of hazardous waste for toxicity as defined in 40 C.F.R. 261 Subpart C shall be treated prior to transport to the landfill, or disposed as hazardous waste at an appropriately permitted RCRA Subtitle C disposal facility. Transportation, treatment, storage, and disposal of the excavated material shall be in accordance with all applicable local, state, or federal requirements, including the EPA's Off-Site Rule as stipulated in the Order.

#### Property Restoration

After confirmation sampling has verified that cleanup goals have been achieved, excavated areas will be backfilled with non-contaminated clean soil to original grade and re-vegetated. Final site restoration will include the placement of sod on a minimum of ¼ acre of disturbed soil. Respondent may elect to apply hydro-seed to everything in excess of ¼ acre of disturbed soil. Respondent 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. Until newly planted grass is established, Respondent shall provide for fertilization, watering and inspection procedures to ensure that these areas meet these objectives. Restoration may also require Respondent to provide additional seeding, trees, plants and/or gravel placement or restoration if necessary to meet the underlying requirement to return the property at minimum to its pre-existing condition. Installation of erosion control using lawn mesh, chopped straw, erosion socks or mats, silt fencing, etc. may be required.

## Backfill

All backfill providers shall have or immediately obtain a Land Disturbance Permit and develop and implement a Storm Water Pollution Prevention Plan per State Regulations. (<http://www.dnr.mo.gov/pubs/pub2009.pdf>). It is Respondent's responsibility to ensure that the provider of any soil used on this project, is also in compliance with and meets the requirements of the National Pollutant Discharge Elimination System (NPDES) Storm Water Pollution Prevention for construction activities if necessary.

Respondent shall be responsible for locating, gaining access and providing the location of proposed suitable backfill sources. Respondent must provide the potential locations of suitable backfill sources at least 21 days prior to work beginning on this site or at least 21 days prior to the need to switch any backfill sources. If topsoil and clay or other materials are used and the sources are different, all source locations must be provided at least 21 days prior to work beginning on this site. Respondent shall sample suitable backfill sources and submit those samples for laboratory analysis. The EPA shall have access to all potential and accepted backfill sources. Respondent shall follow stormwater protection regulations with regard to the backfill sources. Backfill sources and sampling methods shall be approved by the on-site EPA representative. All excavations shall be backfilled with non-contaminated soil, topsoil, and gravel with at least the following characteristics:

1. contains less than 100 mg/kg average lead;
2. contains less than 22 mg/kg average arsenic;
3. contains less than 25 mg/kg average cadmium;
4. contains less than 1,800 mg/kg average manganese
5. contains no contaminants at concentrations that pose a risk to human health and the environment. This means that TAL Metals, TCL VOCs, and TCL SVOCs not listed in numbers 1, 2, 3, and 4 (above) must be below residential soil supporting levels referred to by the Regional Screening Levels for Chemical Contaminants at Superfund Sites. The levels can be found at the following web address:  
[http://www.epa.gov/reg3hwmd/risk/human/rb-concentration\\_table/index.htm](http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm)
6. topsoil shall be of sufficient quality to produce heavy growths of grass and sustain vegetable gardens as verified by appropriate nutrient testing; and,
7. contains insignificant amounts of debris (tree roots, rocks, etc.).

Respondent shall ensure all equipment used to haul clean material is free of contaminated material. The EPA will have access at any time to inspect or sample any truck being used for hauling clean backfill (soil or gravel) for lead contamination while the truck is performing the transport of clean backfill under this task.

Respondent shall ensure adequate compaction of soil for use during this task without

unacceptable future settlement. Respondent shall not place backfill in excavations containing snow, ice or standing water. Respondent shall accomplish placement of backfill in a manner that will provide positive drainage away from all buildings.

## **POST REMOVAL SITE CONTROLS**

It is EPA policy that Post Removal Site Control (PRSC) shall be the responsibility of the Respondent. At this time it is uncertain what, if any, PRSC will be needed. Respondent shall develop and submit a Notice of Declaration form for homeowners to provide awareness to current and future homeowners of the potential of contamination that may remain on their property, in the event PRSCs are needed and contamination is to be left in place at a property.

## **REPORTING**

Respondent shall submit monthly progress reports and a final Removal Action Report in accordance with Section XI of the Order. All other reporting requirements specified in this SOW and the Order shall be submitted in accordance with schedules stipulated therein.



AUG 04 2016



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 7

11201 Renner Boulevard  
Lenexa, Kansas 66219

Ms. Kathleen M. Whitby  
Spencer Fane  
1 North Brentwood Boulevard, Suite 1000  
St. Louis, Missouri 63105-3937

Re: Issuance of Unilateral Administrative Order for the Caney Residential Yards Site,  
Caney, Kansas

Dear Ms. Whitby:

Enclosed is a Unilateral Administrative Order issued against Blue Tee Corporation (Blue Tee) pursuant to the U.S. Environmental Protection Agency's authority under Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9606 for Blue Tee to conduct a removal action at the above Site. Pursuant to Section VIII, the UAO is effective five days after the Director, Superfund Division, signs the UAO unless Blue Tee requests a conference, explained in more detail in the UAO. You have five days after receipt of the UAO to give your notice of intent to comply or request a conference as explained in more detail in the UAO.

Attached to the UAO is a draft Action Memorandum prepared by Region 7. If Blue Tee does not conduct the removal action in accordance with the UAO, EPA will conduct the removal action and may take an enforcement action to recover costs from Blue Tee.

On March 24, 2016, the EPA sent Blue Tee a General Notice letter requesting Blue Tee enter into negotiations for an administrative order on consent to conduct the removal action at the site and indicate its willingness to pay past costs. In response, Blue Tee submitted two requests for thirty day extensions of time to respond to the General Notice Letter, which EPA granted and the most recent request dated June 23, 2016, requesting 90 days which has not been granted. Also, on July 21, 2016, EPA sent you a letter advising you that EPA was preparing the enclosed UAO.

As a courtesy, the EPA, through its staff attorney for this Site, Denise Roberts, will also be calling you when the UAO is mailed. We look forward to receiving your response.

Sincerely,

Mary P. Peterson  
Director  
Superfund Division

CONCURRENCES

SYMBOL	C.NSI	C.NSL	PPSS	FPS	ERNB	SIAPR	SUAR	
--------	-------	-------	------	-----	------	-------	------	--

UNITED STATES DEPARTMENT OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION

Washington, D.C. 20535



TO : SAC, [illegible]

FROM : SAC, [illegible]

SUBJECT: [illegible]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

[illegible text]