UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 7

IN THE MATTER OF: 2nd AND SMELTER SITE (FORMER ROBERT LANYON SMELTER) PITTSBURG, CRAWFORD COUNTY, KANSAS KSN000703668 SOUTH KANSAS AND OKLAHOMA RAILROAD, L.L.C and WATCO COMPANIES, L.L.C. RESPONDENTS. Proceeding Under Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622	Docket No. CERCLA 07-2017-0006 ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMOVAL ACTION

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ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMOVAL ACTION

I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent (Settlement Agreement) is entered into voluntarily by the U.S. Environmental Protection Agency and South Kansas and Oklahoma Railroad, L.L.C. and Watco Companies, L.L.C. (Respondents). This Settlement Agreement provides for the performance of a removal action by Respondents and the reimbursement of certain response costs incurred by the United States at or in connection with the 2nd and Smelter Site (Former Robert Lanyon Smelter), located in the northeast quarter of the northwest quarter of Section 29, Township 30 South, Range 25 East, Pittsburg, Crawford County, Kansas, and generally depicted in Appendix B.

2. This Settlement Agreement is issued under the authority vested in the president of the United States by Sections 104, 106(a), 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622 (CERCLA). This authority was delegated to the administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2923 (Jan. 29, 1987), and further delegated to EPA regional administrators by EPA Delegation Nos. 14-14-A (Determinations of Imminent and Substantial Endangerment, Nov. 1, 2001), 14-14C (Administrative Actions Through Consent Orders, Jan. 18, 2017) and 14-14D (Cost Recovery Non-Judicial Agreements and Administrative Consent Orders, Jan. 18, 2017). This authority was further delegated by the regional administrator of EPA Region 7 to the director of the Superfund Division by Delegation Nos. R7-14-014-A (Determinations of Imminent and Substantial Endangerment, Apr. 19, 1999), R7-14-14C (Administrative Actions Through Consent Orders, Jan. 17, 2017) and R7-14-14D (Cost Recovery Non-Judicial Agreements and Administrative Consent Orders, Jan. 17, 2017).

3. On November 3, 2015, the Kansas Department of Health and Environment referred the Site to the EPA for further action to facilitate cleanup of the Site. 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).

4. EPA and Respondents recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Settlement Agreement do not constitute an admission of any liability. Respondents do not admit and retain the right to controvert in any subsequent proceedings, other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of facts, conclusions of law, and determinations in Sections IV (Findings of Fact) and V (Conclusions of Law and Determinations) of this Settlement Agreement. Respondents agree to comply with and be bound by the terms of this Settlement Agreement and further agree that they will not contest the basis or validity of this Settlement Agreemen1t or its terms.

II. PARTIES BOUND

5. This Settlement Agreement is binding upon EPA and upon Respondents and their successors, and assigns. Any change in ownership or corporate status of Respondents including,

but not limited to, any transfer of assets or real or personal property shall not alter Respondents' responsibilities under this Settlement Agreement. The undersigned representatives of Respondents certify that he or she is fully authorized to enter into the terms and conditions of this Settlement Agreement and to execute and legally bind Respondents to this Settlement Agreement.

6. The Respondents are jointly and severally liable for the performance of the activities required by this Settlement Agreement and in the attached "Statement of Work For A Time-Critical Removal Action at the 2nd and Smelter (Former Robert Lanyon Smelter) Site" (SOW) set forth in Appendix A.

7. Respondents shall provide a copy of this Settlement Agreement to each contractor hired to perform the Work required by this Settlement Agreement and to each person representing the Respondents 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 Settlement Agreement. Respondents or their contractors shall provide written notice of this Settlement Agreement to all subcontractors hired to perform any portion of the Work required by this Settlement Agreement. Respondents shall nonetheless be responsible for ensuring that their contractors and subcontractors perform the Work in accordance with the terms of this Settlement Agreement.

III. DEFINITIONS

8. Unless otherwise expressly provided in this Settlement Agreement, terms used in this Settlement Agreement 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 Settlement Agreement or its attached appendices, the following definitions shall apply:

"Action Memorandum" shall mean the EPA Enforcement Action Memorandum relating to the Site that will be signed by the EPA, Region 7, Superfund Division Director. The draft Action Memorandum is attached to this Settlement Agreement as Appendix B.

"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 Settlement Agreement, 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 Settlement Agreement as provided in Section XXX.

"EPA" shall mean the U.S. Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

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

"KDHE" shall mean the Kansas Department of Health and Environment and any successor departments or agencies of the State.

"Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing deliverables submitted pursuant to this Settlement Agreement, in overseeing implementation of the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Section IX (Property Requirements) (including, but not limited to, cost of attorney time and any monies paid to secure or enforce access, including, but not limited to, the amount of just compensation), Section XIII (Emergency Response and Notification of Releases), Paragraph 74 (Work Takeover), Paragraph 95 (Access to Financial Assurance), Section XV (Dispute Resolution), and all litigation costs.

"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://www.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.

"Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral or an upper or lower case letter.

"Parties" shall mean EPA and Respondents.

"Post-Removal Site Control" shall mean actions necessary to ensure the effectiveness and integrity of the removal action to be performed pursuant to this Settlement Agreement consistent with Sections 300.415(*l*) and 300.5 of the NCP and the EPA's "Policy on Management of Post-Removal Site Control" (OSWER Directive No. 9360.2-02, Dec. 3, 1990).

"Respondents" shall mean Kansas and Oklahoma Railroad, L.L.C. and Watco Companies, L.L.C.

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

"Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent for Removal Action and all appendices attached hereto (listed in Section XXIX (Integration/Appendices)). In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.

"Site" shall mean the 2nd and Smelter Site (Former Robert Lanyon Smelter) located in the northeast quarter of the northwest quarter of Section 29, Township 30 South, Range 25 East in Pittsburg, Crawford County, Kansas.

"State" shall mean the State of Kansas.

"Statement of Work" or "SOW" shall mean the Statement of Work attached to this Settlement Agreement as Appendix A.

"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" or "hazardous waste" under Section 1004(27) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6903(27).

"Work" shall mean all activities and obligations Respondents are required to perform under this Settlement Agreement except those required by Section XI (Record Retention).

IV. FINDINGS OF FACT

9. Respondent South Kansas and Oklahoma Railroad, L.L.C. is a limited liability company organized under the laws of the State of Kansas and is the owner of the Site.

10. Respondent Watco Companies, L.L.C. is a limited liability company organized under the laws of the State of Delaware and is authorized to conduct business in the State of Kansas. Respondent Watco acquired the South Kansas and Oklahoma Railroad in 2011.

11. The Site is a portion of the former Robert Lanyon Zinc Works smelter, one of three former zinc smelters which operated in central Pittsburg, Kansas (sometimes collectively referred to as the "Pittsburg Zinc Site"). The Site is located in Section 29, Township 30 South, Range 25 East, Pittsburg, Crawford County, Kansas, east and southeast of the intersection of East 4th Street and Joplin Street. The geographic coordinates of the Site are 37.409089 degrees north latitude and 94.696473 degrees west longitude. The Site is primarily a large vacant lot containing a cellular tower and debris piles. It is in a mixed commercial and industrial area of Pittsburg with industrial facilities and a rail line to the east and mixed commercial/residential properties to the south and west.

12. In June 2008, KDHE completed an expanded site investigation that included the collection of soil samples from residences and parks approximately 500 feet from the Site. Concentrations of lead were found as high as 610 milligrams per kilogram (mg/kg) with a risk-based standard for Kansas (RSK) of 400 mg/kg, and 20.7 mg/kg for arsenic with a RSK level of 5.85 mg/kg.

13. In 2009, EPA conducted a removal site evaluation for the Pittsburg Zinc Site including the screening of nearly 200 properties throughout Pittsburg, Kansas, for the presence

of lead and surficial excavations have occurred at 78 residential properties having lead concentrations exceeding 550 mg/kg.

14. In 2010, the KDHE and the city of Pittsburg conducted an investigation of the Pittsburg Zinc Site. Surface deposits of smelter waste and contaminated soil with lead concentrations of 1,000 mg/kg or greater were found at the Site. In previous investigations of the Site by the KDHE, lead has been identified at a maximum concentration of 23,000 mg/kg, cadmium at 400 mg/kg, arsenic at 19 mg/kg, and zinc at 95,000 mg/kg.

15. Exposure to lead is the primary risk posed by this Site. Lead contaminated soils may migrate via airborne dust, surface runoff, percolation into groundwater, construction activity, children transporting soil/dust into their homes after playing in the affected areas and by pedestrian foot traffic. Exposure to lead through routes of inhalation or ingestion by residents, site workers and nearby children may occur.

16. Children are more susceptible to the health risks posed by lead than adults. Exposure to low levels of lead can affect a child's mental and physical growth. Children who swallow large amounts of lead may develop anemia, kidney damage, colic, muscle weakness, and brain damage. Lead exposure to adults may cause weaknesses in fingers, wrists, and ankles. Lead exposure may also cause anemia, and brain and kidney damage in adults.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

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

a. The Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

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

c. The Respondents are each a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. The Respondents are responsible parties under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a). The Respondents are the "owners" and/or "operators" of the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

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

f. The conditions present at the Site constitute a threat to the public health, welfare, or the environment based upon the factors set forth in Section 300.415(b)(2) of the National Contingency Plant (NCP), 40 C.F.R. Part 300.

g. The actual or threatened release of hazardous substances from the Site may present an imminent and substantial endangerment to the public health, welfare, or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

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

VI. SETTLEMENT AGREEMENT AND ORDER

18. Based upon the Findings of Fact, Conclusions of Law, and Determinations set forth above, it is hereby Ordered and Agreed that Respondents shall comply with all provisions of this Settlement Agreement, including, but not limited to all documents incorporated by reference into this Settlement Agreement.

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

19. Respondents shall retain one or more contractors or subcontractors to perform the Work and shall notify EPA of the name(s) and qualifications of such contractor(s) or subcontractor(s) within 10 days after the Effective Date. Respondents shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least 10 days prior to commencement of such Work. EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondents. If EPA disapproves of a selected contractor or subcontractor, Respondents shall retain a different contractor or subcontractor and shall notify EPA of that contractor's or subcontractor's name and qualifications within 10 days after EPA's disapproval. If environmental media sampling is conducted, Respondents 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 EPA. The qualifications of the persons undertaking the Work for Respondents shall be subject to EPA's review for verification that such persons meet minimum technical background and experience requirements.

20. Within 10 days after the Effective Date, Respondents shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondents required by this Settlement Agreement and shall submit to 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 Site work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondents shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, email address, and qualifications within 10 days following EPA's disapproval. Receipt by Respondents' Project

Coordinator of any notice or communication from EPA relating to this Settlement Agreement shall constitute receipt by the Respondents.

21. EPA has designated Randolph Brown of the EPA Region 7 Superfund Division, Response and Removal South Section, as its On-Scene Coordinator. Except as otherwise provided in this Settlement Agreement, Respondents shall direct all submissions required by this Settlement Agreement to the OSC at EPA, Region 7, 11201 Renner Blvd., Lenexa, Kansas, 66219. EPA and Respondents shall have the right, subject to Paragraph 20, to change their respective designated OSC or Project Coordinator. Respondents shall notify EPA 5 days before such a change is made. The initial notification by Respondents may be made orally, but shall be promptly followed by a written notice.

22. The OSC shall be responsible for overseeing Respondents' implementation of this Settlement Agreement. The OSC shall have the authority vested in an OSC by the NCP, including the authority to halt, conduct, or direct any Work required by this Settlement Agreement, or to direct any other removal action undertaken at the Site. Absence of the OSC from the Site shall not be cause for stoppage of work unless specifically directed by the OSC.

VIII. WORK TO BE PERFORMED

23. Respondent shall perform, at a minimum, all actions necessary to implement the SOW attached to, and incorporated by reference into, this Settlement Agreement. The actions to be implemented generally include, but are not limited to, the characterization, excavation, consolidation, and capping and/or removal and disposal of contaminated soil and smelter wastes at the Site.

24. Work Plan and Implementation. Within 30 days after the Effective Date of this Settlement Agreement, in accordance with Paragraph 25 (Submission of Deliverables), Respondents shall prepare and submit for EPA review and approval a Removal Action Work Plan (Work Plan) for performing the removal action generally described in Paragraph 23 above. The draft Work Plan shall provide a description of, and an expeditious schedule for, the actions required by this Settlement Agreement. EPA may approve, disapprove, require revisions to, or modify the draft Work Plan in whole or in part. If EPA requires revisions, Respondents shall submit a revised draft Work Plan within 10 days after receipt of EPA's notification of the required revisions. Respondents shall implement the Work Plan as approved in writing by EPA in accordance with the schedule approved by EPA. Once approved, or approved with modifications, the Work Plan, the schedule, and any subsequent modifications shall be incorporated into and become fully enforceable under this Settlement Agreement. Upon approval or approval with modifications of the Work Plan, Respondents shall commence implementation of the Work in accordance with the schedule included therein. Respondents shall not commence or perform any Work except in conformance with the terms of this Settlement Agreement. Unless otherwise provided in this Settlement Agreement, any additional deliverables that require EPA approval under the Work Plan shall be reviewed and approved by EPA in accordance with this Paragraph.

25. Submission of Deliverables

a. General Requirements for Deliverables

(1) Except as otherwise provided in this Settlement Agreement, Respondents shall direct all submissions required by this Settlement Agreement to the OSC, Randolph Brown, at EPA, Region 7, 11201 Renner Boulevard, Lenexa, Kansas 66219, or by email to brown.randolph@epa.gov. Respondents shall submit all deliverables required by this Settlement Agreement, the attached SOW, or any approved work plan to EPA in accordance with the schedule set forth in such plan.

(2) Respondents shall submit all deliverables in electronic form. Technical specifications for sampling and monitoring data and spatial data are addressed in Paragraph 25.b. All other deliverables shall be submitted to 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, Respondents shall also provide EPA with paper copies of such exhibits.

b. Technical Specifications for Deliverables

(1) Sampling and monitoring data should be submitted in standard Regional Electronic Data Deliverable (EDD) format. Other delivery methods may be allowed if electronic direct submission presents a significant burden or as technology changes.

(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/geospatial-policies-and-standards for any further available guidance on attribute identification and naming.

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

26. Health and Safety Plan (HASP). Within 30 days after the Effective Date, Respondents shall submit for EPA review and comment a plan that ensures the protection of the public health and safety during performance of on-site work under this Settlement Agreement. This plan shall be prepared in accordance with "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, and "EPA's Emergency Responder Health and Safety Manual," OSWER Directive 9285.3-12 (July 2005 and updates), available at

http://www.epaosc.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. Respondents shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the pendency of the removal action.

27. Quality Assurance, Sampling, and Data Analysis.

a. Respondents 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).

b. Sampling and Analysis Plan. Within 30 days after the Effective Date, Respondents shall submit a Sampling and Analysis Plan to 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 Work Plan, the NCP and 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 Settlement Agreement. Upon request by EPA, Respondents shall have such laboratory analyze samples submitted by EPA for QA monitoring. Respondents shall provide to EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

c. Respondents shall ensure that EPA personnel and its authorized representatives are allowed access at reasonable times to all laboratories utilized by Respondents in implementing this Settlement Agreement. In addition, Respondents shall ensure that such laboratories shall analyze all samples submitted by 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 the Agency's "EPA QA Field Activities Procedure," CIO 2105-P-02.1 (9/23/2014) available at http://www.epa.gov irmpoli8/epa-qa-field-activities-procedures. Respondents shall ensure that the laboratories they utilize for the analysis of samples taken pursuant to this Settlement Agreement meet the competency requirements set forth in EPA's "Policy to Assure Competency of Laboratories, Field Sampling, and Other Organizations Generating Environmental Measurement Data under Agency-Funded Acquisitions" available at http://www.epa.gov measurements/documents-about-measurement-competency-under-acquisition-agreements and that the laboratories perform all analyses according to accepted EPA 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/clp), SW 846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (http://www3.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://www3.epa.gov/ttnamti1/airtox.html).

d. However, upon approval by EPA, Respondents 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. Respondents shall ensure that all laboratories they use for analysis of samples taken pursuant to this Settlement Agreement 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 EPA. 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 as meeting the Quality System requirements. Respondents shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Settlement Agreement are conducted in accordance with the procedures set forth in the QAPP approved by EPA.

e. Upon request, Respondents shall provide split or duplicate samples to EPA or its authorized representatives. Respondents shall notify EPA not less than 7 days in advance of any sample collection activity unless shorter notice is agreed to by EPA. In addition, EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall provide to Respondents split or duplicate samples of any samples it takes as part of EPA's oversight of Respondents' implementation of the Work.

f. Respondents shall submit to EPA the results of all sampling and/or tests or other data obtained or generated by or on behalf of Respondents with respect to the Site and or the implementation of this Settlement Agreement.

g. Respondents waive any objections to any data gathered, generated, or evaluated by EPA or Respondents in the performance or oversight of the Work that has been verified according to the QA/QC procedures required by the Settlement Agreement or any EPA-approved Work Plans or Sampling and Analysis Plans. If Respondents object to any other data relating to the Work, Respondents shall submit to EPA a report that specifically identifies and explains their objections, describes the acceptable uses of the data, if any, and identifies any limitations to the use of the data. The report must be submitted to EPA within 15 days after the monthly progress report containing the data.

28. Post-Removal Site Control. In accordance with the Work Plan schedule, or as otherwise directed by EPA, Respondents shall negotiate a Long-Term Care Agreement and Environmental Use Control Agreement with the KDHE, or in the alternative, a common law

restrictive covenant enforceable under Kansas law shall be placed on the Site deed with the restrictions that follow:

a. The Site shall not be used for residential use;

b. The Site shall not be used for any recreational, daycare or rehabilitative use;

c. Drinking water wells shall not be installed on Site;

d. The cap on the Site shall not be punctured, trees, brush and weeds shall not be allowed to grow on the cap, and the cap shall be kept in good repair;

e. Signage warning of the presence of hazardous substances shall be placed around the perimeter of the Site and the Site shall be maintained in good condition and repair, which will include replacement if cracks appear that, from a technical opinion, would cause erosion or seepage into the cap;

f. The landowner/purchaser shall give at least 30-day prior notice to the EPA and grantee(s) of any sale of the Site;

g. The landowner/purchaser shall provide and maintain in any deed, title, notice or other instrument of conveyance of the Site a notice stating that the Site is subject to these restrictions stated in (a) through (j);

h. The landowner/purchaser and grantee(s) shall have the right to sue for and obtain an injunction, prohibitive or mandatory, to prevent the breach of these stated restrictions set forth in these stated condition/provisions;

i. The landowner/purchaser and grantee(s) shall have the right to sue to enforce the observance of these restrictions stated in (a) through (j) in addition to any legal action for damages, including costs, whether injunctive or legal, and when incurred shall be a charge and lien on the Site;

j. Upon request by the EPA, the landowner/purchaser shall grant access to the Site; and

k. The failure of the landowner/purchaser, grantee(s) or the EPA to enforce any of the stated restrictions in (a) through (j) above at the time of its violation shall in no event be deemed a waiver of the right to do so at a later time.

29. Progress Reports. Respondents shall submit a written progress report to EPA concerning actions undertaken pursuant to this Settlement Agreement on a monthly basis, or as otherwise requested by EPA, after the date of receipt of EPA's approval of the Work Plan until issuance of Notice of Completion of Work pursuant to Section XXVIII, 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.

30. Final Report. Within 45 days after completion of all Work required by this Settlement Agreement, including receipt of any disposal manifests, Respondents shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Settlement Agreement. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "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 Settlement Agreement, 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 action (e.g., manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a corporate official of a Respondent or Respondents' Project Coordinator:

> "I certify under penalty of law that this document and all appendices 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."

31. Off-Site Shipments.

a. Respondents 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. Respondents will be deemed to be in compliance with CERCLA Section 121(d)(3) and 40 C.F.R. § 300.440 regarding a shipment if Respondents obtain 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. Respondents 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 written notice requirement shall not apply to any off-site shipments when the total quantity of all such shipments will not exceed 10 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. Respondents also shall 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. Respondents shall provide the written notice after the award of the contract for the removal action and before the Waste Material is shipped.

c. Respondents 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.

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

IX. SITE ACCESS

33. Respondents shall, commencing on the Effective Date, provide the EPA and its representatives, including contractors, with access at all reasonable times to the Site for the following purposes:

a. Monitoring the Work;

b. Verifying any data or information submitted to the United States;

c. Conducting investigations regarding contamination at or near the Site;

d. Obtaining samples;

e. Assessing implementation of quality assurance and quality control practices as defined in the approved quality assurance quality control plan as defined in the approved QAPP;

f. Implementing the Work pursuant to the conditions set forth in Paragraph 74 (Work Takeover); and

g. Assessing Respondents' compliance with the Settlement Agreement.

34. Where any action required by this Settlement Agreement is to be performed in areas owned by or in possession of someone other than Respondents, Respondents shall use their best efforts to obtain all necessary access agreements within 14 days after the Effective Date, or as otherwise specified in writing by the OSC. Respondents shall immediately notify EPA, if after using their best efforts, they have been unable to obtain such agreement(s). For purposes of

this Paragraph, "best efforts" includes the efforts that a reasonable person in the position of Respondents 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. If Respondents are unable to accomplish what is required through "best efforts" in a timely manner, they shall notify EPA, and include a description of the steps taken to obtain necessary access agreements. If EPA deems it appropriate, it may assist Respondents, or take independent action, in obtaining such access. All costs incurred by the United States in providing such assistance or taking such action, including the cost of attorney time and the amount of monetary consideration or just compensation paid, constitute Future Response Costs to be reimbursed under Section XIV (Payment of Response Costs).

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

X. ACCESS TO INFORMATION

36. Respondents 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 Respondents' possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Settlement Agreement, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the Work. Respondents 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.

37. Privileged and Protected Claims.

a. Respondents may assert all or part of a Record requested by EPA is privileged or protected as provided under federal law, in lieu of providing the Record, provided Respondents comply with Paragraph 37.b., and except as provided in Paragraph 37.c.

b. If Respondents assert such a privilege or protection, they shall provide 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, shall provide the Record to EPA in redacted form to mask the privileged or protected portion only. Respondents shall retain all Records that they claim to be privileged or protected until EPA has had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in Respondents' favor.

c. Respondents 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 Respondents are required to create or generate pursuant to this Settlement Agreement.

38. Business Confidential Claims. Respondents may assert that all or part of a Record provided to EPA under this Section or Section XI (Record Retention) 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). Respondents shall segregate and clearly identify all Records or parts thereof submitted under this Settlement Agreement for which Respondents assert business confidentiality claims. Records submitted to EPA determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA, or if EPA has notified Respondents 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 Respondents.

39. Notwithstanding any provision of this Settlement Agreement, 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.

XI. RECORD RETENTION

40. Until 10 years after EPA provides Respondents with notice, pursuant to Section XXVIII (Notice of Completion of Work), that all Work has been fully performed in accordance with this Settlement Agreement, Respondents shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in their possession or control, or that come into their possession or control, that relate in any manner to the performance of the Work or the liability of any person under CERCLA with regard to the Site, regardless of any corporate record retention policy to the contrary.

41. At the conclusion of the document retention period, Respondents shall notify EPA at least 90 days prior to the destruction of any such Records, and, upon request by EPA, and except as provided in Paragraph 37 (Privileged and Protected Claims), Respondents shall deliver any such Records to EPA.

42. Respondents certify that, to the best of their knowledge and belief, after thorough inquiry, they have not altered, mutilated, discarded, destroyed, or otherwise disposed of any Records (other than identical copies) relating to their potential liability regarding the Site since notification of potential liability and that they have 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.

XII. COMPLIANCE WITH OTHER LAWS

43. Nothing in this Settlement Agreement limits Respondents' 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. § 9621(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-site actions required pursuant to

this Settlement Agreement shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements (ARARs) under federal environmental or state environmental or facility siting laws. Respondents shall identify ARARs in the RAWP subject to EPA approval.

44. 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, Respondents shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. Respondents may seek relief under the provisions of Section XVI (Force Majeure) for any delay in the performance of the Work resulting from a failure to obtain, or a delay in obtaining, any permit or approval required for the Work, provided that they have submitted timely and complete applications and taken all other actions necessary to obtain all such permits or approvals. This Settlement Agreement is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

45. Emergency Response. If any event occurs during performance of the Work that causes or threatens to cause a release of 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, Respondents shall immediately take all appropriate action to prevent, abate, or minimize such release or threat of release. Respondents shall take these actions in accordance with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plan. Respondents shall also immediately notify the OSC or, in the event of his/her unavailability, the Regional Duty Officer at (913) 281-0991 of the incident or Site conditions. In the event that Respondents fail to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondents shall reimburse EPA for all costs of such response action not inconsistent with the NCP pursuant to Section XIV (Payment of Response Costs).

46. Release Reporting. Upon the occurrence of any event during performance of the Work that Respondents are 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, Respondents 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, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004.

47. For any event covered under this Section, Respondents shall submit a written report to EPA within 7 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.

XIV. PAYMENT OF RESPONSE COSTS

48. Payment for Future Response Costs.

a. Respondents shall pay EPA all Future Response Costs not inconsistent with the NCP. On a periodic basis, EPA will send Respondents a bill requiring payment that includes an Itemized Cost Summary, which includes direct and indirect costs incurred by EPA and its contractors. Respondents shall make all payments within 30 days of receipt of each bill requiring payment, except as otherwise provided in Paragraph 50 of this Settlement Agreement.

b. Respondents shall make all payments required by this Paragraph to 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"

c. At the time of payment, Respondents shall send notice that payment has been made to the OSC at EPA, Region 7, 11201 Renner Boulevard, Lenexa, Kansas 66219, and to the EPA Cincinnati Finance Office by email at 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 B7B3 and the EPA docket number for this action.

d. The total amount to be paid by Respondents pursuant to Paragraph 48.a. shall be deposited by EPA in the 2nd and Smelter Special Account or to be transferred to the EPA Hazardous Substance Superfund.

49. Interest. In the event that any payment for Future Response Costs is not made by the date required, Respondents shall pay Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Paragraph 61 (Stipulated Penalties – Work (Including Payments and Excluding Deliverables)).

50. Contesting Future Response Costs. Respondents may initiate the procedures of Section XV (Dispute Resolution) regarding payment of any Future Response Costs billed under Paragraph 48 (Payments for Future Response Costs) if they determine that EPA has made a mathematical error or included a cost item that is not within the definition of Future Response Costs, or if they believe EPA incurred excess costs as a direct result of an EPA action that was inconsistent with a specific provision or provisions of the NCP. To initiate such dispute, Respondents shall submit a Notice of Dispute in writing to the OSC within 30 days after receipt of the bill. Any such Notice of Dispute shall specifically identify the contested Future Response Costs and the basis for objection. If Respondents submit a Notice of Dispute, Respondents shall within the 30-day period, also as a requirement for initiating the dispute, (a) pay all uncontested Future Response Costs to EPA in the manner described in Paragraph 48 (Payment of Future Response Costs), and (b) establish, in a duly chartered bank or trust company, an interest-bearing escrow account that is insured by the Federal Deposit Insurance Corporation (FDIC) and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondents shall send to the OSC a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. If EPA prevails in the dispute, within 5 days after the resolution of the dispute, Respondents shall pay the sums due (with accrued interest) to EPA in the manner described in Paragraph 48. If Respondents prevail concerning any aspect of the contested costs, Respondents shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to EPA in the manner described in Paragraph 48. Respondents shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XV (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondents' obligation to reimburse EPA for its Future Response Costs.

XV. DISPUTE RESOLUTION

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

52. Informal Dispute Resolution. If Respondents object to any EPA action taken pursuant to this Settlement Agreement, including billings for Future Response Costs, they shall send EPA a written Notice of Dispute describing the objection(s) within 10 days after such action. EPA and Respondents shall have 21 days from EPA's receipt of Respondents' Notice of Dispute to resolve the dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by the Parties, be incorporated into and become an enforceable part of this Settlement Agreement.

53. Formal Dispute Resolution. If the Parties are unable to reach an agreement within the Negotiation Period, Respondents shall, within 20 days after the end of the Negotiation Period, submit a statement of position to the OSC. EPA may, within 20 days thereafter, submit a

statement of position. Thereafter, an EPA management official at the Branch Chief level or higher will issue a written decision on the dispute to Respondents. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs.

54. Except as provided in Paragraph 50 (Contesting Future Response Costs) or as agreed by EPA, invocation of formal dispute resolution procedures under this Section does not extend, postpone, or affect in any way any obligation of Respondents under this Settlement Agreement. Except as provided in Paragraph 64, stipulated penalties with respect to the disputed matter shall continue to accrue, but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Settlement Agreement. In the event that Respondents do not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XVII (Stipulated Penalties).

XVI. FORCE MAJEURE

55. "*Force majeure*" for purposes of this Settlement Agreement, is defined as any event arising from causes beyond the control of Respondents, of any entity controlled by Respondents, or of Respondents' contractors that delays or prevents the performance of any obligation under this Settlement Agreement despite Respondents' best efforts to fulfill the obligation. The requirement that Respondents exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential *force majeure* and best efforts to address the effects of any potential *force majeure* (a) as it is occurring and (b) following the potential *force majeure* such that the delay and any adverse effects of the delay are minimized to the greatest extent possible. *Force majeure* does not include financial inability to complete the Work, increased cost of performance or a failure to attain performance standards set forth in the Work Plan.

56. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement for which Respondents intend to assert a claim of *force majeure*, Respondents shall notify EPA within five days of when Respondents first knew that the event might cause a delay. Within two days thereafter, Respondents shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a *force majeure*; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health or welfare, or the environment. Respondents shall include with any notice all available documentation supporting their claim that the delay was attributable to a *force majeure*. Respondents shall be deemed to know of any circumstance of which Respondents, any entity controlled by Respondents, or Respondents' contractors knew or should have known. Failure to comply with the above requirements regarding an event shall preclude Respondents from asserting any claim of *force majeure* regarding that event, provided, however, that if EPA, despite the late or incomplete notice, is able to assess to its satisfaction whether the event is a *force majeure* under Paragraph 55 and whether Respondents have exercised their best

efforts under Paragraph 55, EPA may, in its unreviewable discretion, excuse in writing Respondents' failure to submit timely or complete notices under this Paragraph.

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

58. If Respondents elect to invoke the dispute resolution procedures set forth in Section XV (Dispute Resolution), they shall do so no later than 15 days after receipt of EPA's notice. In any such proceeding, Respondents shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a *force majeure*, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Respondents complied with the requirements of Paragraphs 55 and 56. If Respondents carry this burden, the delay at issue shall be deemed not to be a violation by Respondents of the affected obligation of this Settlement Agreement identified to EPA.

59. The failure by EPA to timely complete any obligation under this Settlement Agreement is not a violation of the Settlement Agreement, provided, however, that if such failure prevents Respondents from meeting one or more deadlines under the Settlement Agreement, Respondents may seek relief under this Section.

XVII. STIPULATED PENALTIES

60. Respondents shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 61 and 62 for failure to comply with the requirements of this Settlement Agreement specified below, unless excused under Section XVI (*Force majeure*). "Compliance" by Respondents shall include completion of all activities and obligations, including payments, required under this Settlement Agreement, or any deliverable approved under this Settlement Agreement, in accordance with all applicable requirements of law, this Settlement Agreement, and any deliverables approved under this Settlement Agreement and within the specified time schedules established by and approved under this Settlement Agreement.

61. Stipulated Penalty Amounts - Work (Including Payments and Excluding Deliverables).

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Section VIII and listed in the Work Plan schedule:

Penalty Per Violation Per Day	Period of Noncompliance
$ 1,000.00	1st through 14th day

$ 2,000.00	15th through 30th day
$ 3,000.00	31st day and beyond

62. Stipulated Penalty Amounts - Reports. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate reports pursuant to Paragraphs 29 (Progress Reports) and 30 (Final Report):

Penalty Per Violation Per Day	Period of Noncompliance
$ 700.00	1st through 14th day
$ 1,000.00	15th through 30th day
$ 1,500.00	31st day and beyond

63. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 74 (Work Takeover), Respondents shall be liable for a stipulated penalty in the amount of $200,000. Stipulated penalties under this Paragraph are in addition to the remedies available to EPA under Paragraphs 74 (Work Takeover) and 95 (Access to Financial Assurance).

64. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. Penalties shall continue to accrue during any dispute resolution period, and shall be paid within 15 days after the agreement or the receipt of EPA's decision or order. However, stipulated penalties shall not accrue: (a) with respect to a deficient submission under Section VIII (Work To Be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondents of any deficiency; and (b) with respect to a decision under Paragraph 53, during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date the EPA's management official issues a final decision regarding such dispute. Nothing in this Settlement Agreement shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

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

66. All penalties accruing under this Section shall be due and payable to EPA within 30 days after Respondents' receipt from EPA of a demand for payment of the penalties, unless Respondents invoke the Dispute Resolution procedures under Section XV (Dispute Resolution) within the 30-day period. All payments to EPA under this Section shall indicate that the payment is for stipulated penalties and shall be made in accordance with Paragraph 48 (Payment for Future Response Costs).

67. If Respondents fail to pay stipulated penalties when due, Respondents shall pay Interest on the unpaid stipulated penalties as follows: (a) if Respondents have timely invoked dispute resolution such that the obligation to pay stipulated penalties has been stayed pending the

outcome of dispute resolution, Interest shall accrue from the date stipulated penalties are due pursuant to Paragraph 64 until the date of payment; and (b) if Respondents fail to timely invoke dispute resolution, Interest shall accrue from the date of demand under Paragraph 66 until the date of payment. If Respondents fail to pay stipulated penalties and Interest when due, the United States may institute proceedings to collect the penalties and Interest.

68. The payment of penalties and Interest, if any, shall not alter in any way Respondents' obligation to complete the performance of the Work required under this Settlement Agreement.

69. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondents' violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(*l*) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(*l*), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), provided however, that EPA shall not seek civil penalties pursuant to Section 106(b) or Section 122(*l*) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided in this Settlement Agreement, except in the case of a willful violation of this Settlement Agreement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 74 (Work Takeover).

70. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

XVIII. COVENANT BY EPA

71. Except as provided in Section XIX (Reservations of Rights by EPA), EPA covenants not to sue or to take administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work and Future Response Costs. These covenants shall take effect upon completion of the Work, including establishment of post-removal site control under Paragraph 28 and receipt by EPA of all Future Response Costs and any Interest or Stipulated Penalties due under Paragraph 48 or Section XVIII (Stipulated Penalties). This covenant is conditioned upon the complete and satisfactory performance by Respondents of their obligations under this Settlement Agreement. This covenant extends only to Respondents and does not extend to any other person.

XIX. RESERVATIONS OF RIGHTS BY EPA

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

appropriate and necessary, or from requiring Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable law.

73. The covenant set forth in Section XVIII (Covenant by EPA) does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondents with respect to all other matters, including, but not limited to:

a. liability for failure by Respondents to meet a requirement of this Settlement Agreement;

b. liability for costs not included within the definitions of Future Response Costs;

c. liability for performance of response action other than the Work;

d. criminal liability;

e. liability for violations of federal or state law that occur during or after implementation of the Work;

f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;

g. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and

h. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site not paid as Future Response Costs under this Settlement Agreement.

74. Work Takeover.

a. In the event EPA determines that Respondents: (1) have ceased implementation of any portion of the Work; (2) are seriously or repeatedly deficient or late in their performance of the Work; or (3) are implementing the Work in a manner that may cause an endangerment to human health or the environment, EPA may issue a written notice (Work Takeover Notice) to Respondents. Any Work Takeover Notice issued by EPA (which writing may be electronic) will specify the grounds upon which such notice was issued and will provide Respondents a period of three days within which to remedy the circumstances giving rise to EPA's issuance of such notice.

b. If, after expiration of the 3-day notice period specified in Paragraph 74.a., Respondents have not remedied to EPA's satisfaction the circumstances giving rise to EPA's issuance of the relevant Work Takeover Notice, EPA may at any time thereafter assume the performance of all or any portion(s) of the Work as EPA deems necessary. EPA will notify Respondents in writing (which writing may be electronic) if EPA determines that implementation of a Work Takeover is warranted under this Paragraph 74.b. Funding of Work Takeover costs is addressed under Paragraph 95 (Access to Financial Assurance).

c. Respondents may invoke the procedures set forth in Paragraph 53 to dispute EPA's implementation of a Work Takeover under Paragraph 74.b. However, notwithstanding Respondents' invocation of such dispute resolution procedures, and during the pendency of any such dispute, EPA may in its sole discretion commence and continue a Work Takeover under Paragraph 74.b until the earlier of (1) the date that Respondents remedies, to EPA's satisfaction, the circumstances giving rise to EPA's issuance of the relevant Work Takeover Notice, or (2) the date that a written decision terminating such Work Takeover is rendered in accordance with Paragraph 53.

d. Notwithstanding any other provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XX. COVENANT NOT TO SUE BY RESPONDENTS

75. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States, or their contractors or employees, with respect to the Work, Future Response Costs, and this Settlement Agreement, including, but not limited to:

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

b. any claims under Sections 107 and 113 of CERCLA, Section 7002(a) of RCRA, 42 U.S.C. § 6972(a), or state law regarding the Work, Future Response Costs, and this Settlement Agreement; or

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

76. This covenant not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to any of the reservations set forth in Section XIX (Reservations of Rights by EPA), other than in Paragraph 73.a. (liability for failure to meet a requirement of the Settlement Agreement), 73.d. (criminal liability), or 73.e. (violations of federal/state law during or after implementation of the Work), but only to the extent that Respondents' claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

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

78. Respondents reserve, and this Settlement Agreement is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, and brought pursuant to any statute other than CERCLA or RCRA and for

which the waiver of sovereign immunity is found in a statute other than CERCLA or RCRA, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States, as that term is defined in 28 U.S.C. § 2671, while acting within the scope of his or her office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, the foregoing shall not include any claim based on EPA's selection of response actions, or the oversight or approval of Respondents' deliverables or activities.

XXI. OTHER CLAIMS

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

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

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

XXII. EFFECT OF SETTLEMENT/CONTRIBUTION

82. Nothing in this Settlement Agreement shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Settlement Agreement. Except as provided in Section XX (Covenant Not to Sue by Respondents), each of the Parties expressly reserves any and all rights (including, but not limited to, pursuant to Section 113 of CERCLA, 42 U.S.C. § 9613), defenses, claims, demands, and causes of action which each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto. Nothing in this Settlement Agreement diminishes the right of the United States, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

83. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), and that Respondents is entitled to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, or as may be otherwise provided by law, for the "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work and Future Response Costs.

84. The Parties further agree that this Settlement Agreement constitutes an administrative settlement pursuant to which Respondents have, as of the Effective Date, resolved liability to the United States within the meaning of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B).

85. Respondents shall, with respect to any suit or claim brought by it for matters related to this Settlement Agreement, notify EPA in writing no later than 60 days prior to the initiation of such suit or claim. Respondents also shall, with respect to any suit or claim brought against it for matters related to this Settlement Agreement, notify EPA in writing within 10 days after service of the complaint or claim upon it. In addition, each Respondent shall notify EPA within 10 days after service or receipt of any Motion for Summary Judgment and within 10 days after receipt of any order from a court setting a case for trial, for matters related to this Settlement Agreement.

86. In any subsequent administrative or judicial proceeding initiated by EPA, or by the United States on behalf of EPA, for injunctive relief, recovery of response costs, or other relief relating to the Site, Respondents shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenant by EPA set forth in Section XVIII (Covenants by EPA).

87. Effective upon signature of this Settlement Agreement by Respondents, Respondents agree that the time period commencing on the date of its signature and ending on the date EPA receives from Respondents the payment(s) required by Section XVII (Stipulated Penalties), if any, shall not be included in computing the running of any statute of limitations potentially applicable to any action brought by the United States related to the "matters addressed" as defined in Paragraph 82 and that, in any action brought by the United States related to the "matters addressed," Respondents will not assert, and may not maintain, any defense or claim based upon principles of statute of limitations, waiver, laches, estoppel, or other defense based on the passage of time during such period. If EPA gives notice to Respondents that it will not make this Settlement Agreement effective, the statute of limitations shall begin to run again commencing 90 days after the date such notice is sent by EPA.

XXIII. INDEMNIFICATION

88. Respondents shall indemnify, save, and hold harmless the United States, its officials, agents, employees, contractors, subcontractors, and representatives for or from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, and any persons acting on Respondents' behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. Further, Respondents agree to pay the United States all costs it incurs, including but not limited to attorneys' fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under

their control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondents in carrying out activities pursuant to this Settlement Agreement. Neither Respondents nor any such contractor shall be considered an agent of the United States.

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

90. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between Respondents and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Respondents shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondents and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XXIV. INSURANCE

91. No later than 14 days before commencing any on-site Work, Respondents shall secure, and shall maintain until the first anniversary after issuance of Notice of Completion of Work pursuant to Section XXVIII (Notice of Completion of Work), commercial general liability insurance with limits of $1,000,000, for any one occurrence, and automobile insurance with limits of $1,000,000, combined single limit, naming EPA as an additional insured with respect to all liability arising out of the activities performed by or on behalf of Respondents pursuant to this Settlement Agreement. In addition, for the duration of the Settlement Agreement, Respondents shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondents shall resubmit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement Agreement, Respondents shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Settlement Agreement. If Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in a lesser amount, Respondents need provide only that portion of the insurance described above that is not maintained by the contractor or subcontractor.

XXV. FINANCIAL ASSURANCE

92. In order to ensure completion of the Work, within 30 days of the Effective Date, Respondents shall secure financial assurance, initially in the amount of $200,000 (Estimated Cost of the Work), for the benefit of EPA. The financial assurance must be one or more of the mechanisms listed below, in a form substantially identical to the relevant sample documents available from the "Financial Assurance" category on the Cleanup Enforcement Model Language and Sample Documents Database at https://cfpub.epa.gov/compliance/models/, and

satisfactory to EPA. Respondents may use multiple mechanisms if they are limited to surety bonds guaranteeing payment, letters of credit, trust funds, and/or insurance policies.

a. A surety bond guaranteeing payment and/or performance of the Work that is 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;

b. An irrevocable letter of credit, payable to or at the direction of EPA, that is 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;

c. A trust fund established for the benefit of EPA that is 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;

d. A policy of insurance that provides EPA with acceptable rights as a beneficiary thereof and that is issued by an insurance carrier that has the authority to issue insurance policies in the applicable jurisdiction(s) and whose insurance operations are regulated and examined by a federal or state agency;

e. A demonstration by Respondents that Respondents meet 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

f. A guarantee to fund or perform the Work executed in favor of EPA by one of the following: (1) a direct or indirect parent company of Respondents; or (2) a company that has a "substantial business relationship" (as defined in 40 C.F.R. § 264.141(h)) with Respondents; 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.

93. If Respondents provide financial assurance by means of a demonstration or guarantee under Paragraph 92.e. or 92.f., the Respondents 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, but not limited to: (a) the initial submission to EPA of required documents from the affected entity's chief financial officer and independent certified public accountant no later than 30 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 of EPA no later than 30 days, in accordance with Paragraph 94, after any such entity determines that it no longer satisfies the relevant financial test criteria and requirements set forth at 40 C.F.R. § 264.143(f)(1). Respondents agree that EPA may also, based on a belief that an affected entity may no longer meet the financial test requirements of Paragraph 92.e. or 92.f., require reports of financial condition at any time from such entity in addition to those specified in this Paragraph. 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 phrase "the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates" includes 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 Settlement Agreement; (3) the terms "owner" and "operator" include Respondents making a demonstration or obtaining a guarantee under Paragraph 92.e. or 92.f.; and (4) the terms "facility" and "hazardous waste management facility" include the Site.

94. Respondents shall diligently monitor the adequacy of the financial assurance. If Respondents become 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, such Respondents shall notify EPA of such information within seven days. If EPA determines that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, EPA will notify the Respondents of such determination. Respondents shall, within 30 days after notifying EPA or receiving notice from EPA under this Paragraph, secure and submit to EPA for approval a proposal for a revised or alternative financial assurance mechanism that satisfies the requirements of this Section. EPA may extend this deadline for such time as is reasonably necessary for the Respondents, in the exercise of due diligence, to secure and submit to EPA a proposal for a revised or alternative financial assurance mechanism, not to exceed 60 days. Respondents shall follow the procedures of Paragraph 96 (Modification of Amount, Form, or Terms of Financial Assurance) in seeking approval of, and submitting documentation for, the revised or alternative financial assurance mechanism. Respondents' inability to secure and submit to EPA financial assurance in accordance with this Section shall in no way excuse performance of any other requirements of this Settlement Agreement, including, without limitation, the obligation of Respondents to complete the Work in accordance with the terms of this Settlement Agreement.

95. Access to Financial Assurance.

a. If EPA issues a notice of implementation of a Work Takeover under Paragraph 74.b., then, in accordance with any applicable financial assurance mechanism, EPA is entitled to: (1) the performance of the Work; and/or (2) require that any funds guaranteed be paid in accordance with Paragraph 95.d.

b. If EPA is notified by the issuer of a financial assurance mechanism that it intends to cancel such mechanism, and the Respondents fail to provide an alternative financial assurance mechanism in accordance with this Section at least 30 days prior to the cancellation date, the funds guaranteed under such mechanism must be paid prior to cancellation in accordance with Paragraph 95.d.

c. If, upon issuance of a notice of implementation of a Work Takeover under Paragraph 74, either: (1) EPA is unable for any reason to promptly secure the resources guaranteed under any applicable financial assurance mechanism, whether in cash or in kind, to continue and complete the Work; or (2) the financial assurance is provided under Paragraph 92.e.

or 92.f., then EPA may demand an amount, as determined by EPA, sufficient to cover the cost of the remaining Work to be performed. Respondents shall, within 10 days of such demand, pay the amount demanded as directed by EPA.

d. Any amounts required to be paid under this Paragraph 95 shall be, as directed by EPA: (i) paid to EPA in order to facilitate the completion of the Work by EPA or by another person; or (ii) deposited into an interest-bearing account, established at a duly chartered bank or trust company that is insured by the FDIC, in order to facilitate the completion of the Work by another person. If payment is made to EPA, EPA may deposit the payment into the EPA Hazardous Substance Superfund or into the 2nd and Smelter Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund. All EPA Work Takeover costs not paid under this Paragraph 95 must be reimbursed as Future Response Costs under Section XIV (Payments for Response Costs).

96. Modification of Amount, Form, or Terms of Financial Assurance. Respondents may submit, on any anniversary of the Effective Date or at any other time agreed to by the Parties, a request to reduce the amount, or change the form or terms, of the financial assurance mechanism. Any such request must be submitted to EPA, and must include an estimate of the cost of the remaining Work, an explanation of the basis for the cost calculation, and a description of the proposed changes, if any, to the form or terms of the financial assurance. EPA will notify Respondents of its decision to approve or disapprove a requested reduction or change pursuant to this Paragraph. Respondents may reduce the amount of the financial assurance mechanism only in accordance with: (a) EPA's approval; or (b) if there is a dispute, the agreement or written decision resolving such dispute under Section XV (Dispute Resolution). Any decision made by EPA on a request submitted under this Paragraph to change the form or terms of a financial assurance mechanism shall be made in EPA's sole and unreviewable discretion, and such decision shall not be subject to challenge by Respondents pursuant to the dispute resolution provisions of this Settlement Agreement or in any other forum. Within 30 days after receipt of EPA's approval of, or the agreement or decision resolving a dispute relating to, the requested modifications pursuant to this Paragraph, Respondents shall submit to EPA documentation of the reduced, revised, or alternative financial assurance mechanism in accordance with Paragraph 96.

97. Release, Cancellation, or Discontinuation of Financial Assurance. Respondents may release, cancel, or discontinue any financial assurance provided under this Section only: (a) if EPA issues a Notice of Completion of Work under Section XXVIII (Notice of Completion of Work); (b) in accordance with EPA's approval of such release, cancellation, or discontinuation; or (c) if there is a dispute regarding the release, cancellation, or discontinuance of any financial assurance, in accordance with the agreement or final decision resolving such dispute under Section XV (Dispute Resolution).

XXVI. MODIFICATION

98. The OSC may modify any plan or schedule in writing or by oral direction. Any oral modification will be memorialized in writing by EPA promptly, but shall have as its effective date the date of the OSC's oral direction. Any other requirements of this Settlement Agreement may be modified in writing by mutual agreement of the Parties.

99. If Respondents seek permission to deviate from any approved work plan or schedule, Respondents' Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondents may not proceed with the requested deviation until receiving oral or written approval from the OSC pursuant to Paragraph 98.

100. No informal advice, guidance, suggestion, or comment by the OSC or other EPA representatives regarding any deliverable submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXVII. ADDITIONAL REMOVAL ACTION

101. If EPA determines that additional removal actions not included in the SOW or other approved plan(s) are necessary to protect public health, welfare, or the environment, and such additional removal actions are consistent with the Action Memorandum, EPA will notify Respondents of that determination. Unless otherwise stated by EPA, within 30 days after receipt of notice from EPA that additional removal actions are necessary to protect public health, welfare, or the environment, Respondents shall submit for approval by EPA a Work Plan for the additional removal actions. The plan shall conform to the applicable requirements of Section VIII (Work to Be Performed) of this Settlement Agreement. Upon EPA's approval of the plan pursuant to Section VIII (Work to Be Performed), Respondents shall implement the 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 XXVI (Modification).

XXVIII. NOTICE OF COMPLETION OF WORK

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

XXIX. INTEGRATION/APPENDICES

103. This Settlement Agreement and its appendices constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those

expressly contained in this Settlement Agreement. The following appendices are attached to and incorporated into this Settlement Agreement:

Appendix A is the Statement of Work.

Appendix B is the draft Action Memorandum.

XXX. EFFECTIVE DATE

104. This Settlement Agreement shall be effective fifteen days after the Settlement Agreement is signed by the Director of the Superfund Division, EPA Region 7, or his/her delegatee.

IT IS SO AGREED AND ORDERED:

U.S. ENVIRONMENTAL PROTECTION AGENCY:

8/29/2017
Dated

Mary P. Peterson
Mary P. Peterson
Director, Superfund Division, Region 7

Signature Page for Settlement Regarding 2nd and Smelter Superfund Site

FOR KANSAS AND OKLAHOMA RAILROAD, L.L.C.:

8-16-2017
Dated

[Signature]

Thomas Hayes
[Printed Name]

Assistant General Counsel
[Title]

315 W 3rd St. Pittsburg KS
[Address]

Signature Page for Settlement Regarding 2nd and Smelter Superfund Site

FOR WATCO COMPANIES, L.L.C.:

8-16-2017
Dated

[signature]
[Signature]

Thomas Hayes
[Printed Name]

Assistant General Counsel
[Title]

315 W 3rd Pittsburg KS
[Address]

APPENDIX A
STATEMENT OF WORK

TIME-CRITICAL REMOVAL ACTION
2nd AND SMELTER (FORMER ROBERT LANYON ZINC WORKS) SITE
PITTSBURG, CRAWFORD COUNTY, KANSAS
CERCLIS ID#: KSN000703668
SSID: B7B3

PURPOSE

This Time-Critical Removal Action Statement of Work (SOW) sets forth and defines the tasks, standards and guidelines for conducting a time-critical removal action at the 2nd and Smelter (Former Robert Lanyon Zinc Works) Site (Site) under the Comprehensive Environmental Response, Compensation and Liability Act, (CERCLA), as amended, and the terms of the attached Administrative Settlement Agreement and Order on Consent for Removal Action (Settlement Agreement). This SOW shall be followed by the Respondents (South Kansas and Oklahoma Railroad, L. L. C. and Watco Companies, L. L. C.) in implementing a time-critical removal action to address contaminated media at the Site. Other actions not specifically included in this SOW may be required based upon any additional findings or conditions identified at the Site. In implementing the time-critical removal action, the Respondents shall comply with the provisions of CERCLA, the Settlement Agreement, this SOW, the Action Memorandum, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and EPA guidance (including, but not limited to, the guidance documents referenced in this SOW).

BACKGROUND AND OBJECTIVES

The Site is located near 2nd and Smelter Streets, approximately three blocks east of Broadway on 4th Street, and south two blocks on Joplin Street in Pittsburg, Crawford County, Kansas. The former Robert Lanyon Smelter operated at this location between the late 1870s until the early 1900s. This smelter was one of three former smelters along with the adjacent S. H. Lanyon and W. & J. Lanyon smelters collectively referred to as the "Pittsburg Zinc Site" by the Kansas Department of Health and Environment. In a 1993 preliminary assessment (PA) of the Pittsburg Zinc Site, KDHE identified the three adjacent smelters as the likely source for elevated levels of lead, zinc and cadmium with elevated lead concentrations being the primary concern. Additional investigations by KDHE continued through 2008.

A Request for Federal Action (RFA) was received by the EPA from KDHE in 2008 after several residential yards in the area of the Pittsburg Zinc Site were determined to be impacted with lead concentrations at or above 400 mg/kg. A time-critical removal action was conducted by EPA that included assessing 378 properties and excavation of contaminated soil at 78 of these properties to the site-specific derived action level of 550 mg/kg for lead. The residential yard removal action was completed by the EPA in 2010.

After completion of the EPA residential removal action, at the request of KDHE, the Pittsburg Zinc Site was returned to State lead for negotiation of agreements with potentially responsible parties (PRPs) for cleanup of the smelter properties. In 2010, KDHE and the city of Pittsburg entered into an agreement to conduct a supplemental investigation of the three former smelters. The owner of the former W. & J. Lanyon Smelter property (Mission Clay Products Site), MCP Industries, Inc. , entered into a Settlement

Agreement with EPA to perform a removal action. The final Removal Action Report was approved by EPA in 2013. The city of Pittsburg has also conducted voluntary actions at the former S. H. Lanyon Smelter to address remaining waste at that former smelter. The Pittsburg Zinc Site and Mission Clay Products Site administrative records can be referred to for more specific information regarding those sites.

In March 2012, after prolonged negotiations with KDHE, Watco Companies informed KDHE that it preferred to address the smelter wastes and contaminated soil at the Site under EPA oversight. In November 2015, KDHE referred the portion of the former Robert Lanyon Smelter owned by the Respondents (now known as the 2nd and Smelter Site) to EPA for federal action.

A 2010 site investigation conducted by KDHE and the city of Pittsburg estimated approximately 1,961 cubic yards of visible smelter waste are present at the Site along with an estimated volume of 25,300 cubic yards of contaminated soil with lead concentrations of 1,000 mg/kg or greater. Lead has been historically identified at a maximum of 23,000 mg/kg, cadmium at 400 mg/kg, arsenic at 19 mg/kg and zinc at 95,000 mg/kg at the Site through the various investigations conducted by KDHE. The attached figures indicate the general site area, the location of the three former smelters, and distribution of visible smelter waste from the 2010 Site Investigation.

WORK PLAN

Within 30 days of the effective date of the Settlement Agreement, Respondents shall prepare and submit for EPA review and approval a Removal Action Work Plan (Work Plan) that describes the soil and waste characterization, excavation, consolidation, capping, and, if appropriate, removal and disposal activities as well as a schedule for completion of these activities. The project schedule should 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), a Quality Assurance Project Plan (QAPP), and Health and Safety Plan (HASP) in accordance with Section VIII and all other applicable requirements of the Settlement Agreement.

ADDITIONAL SAMPLING

Although a significant number of samples has been collected at the Site, the Respondents may elect to conduct additional sampling to verify historical results and further define areas requiring excavation, consolidation, and if appropriate off-site disposal. The Respondents will also need geotechnical sampling if a repository is being contemplated to demonstrate the adequacy of the construction materials to act as a cap for the repository and the geotechnical characteristics of any associated cover material. The Respondents shall submit a detailed FSP as part of the Work Plan as described above. Sampling activities described by the FSP shall be consistent with Section VIII and other applicable provisions of the Settlement Agreement and meet the following objectives:

Field Information

The field documentation should record all of the relevant information related to sampling at the Site. Geographic information system (GIS) information is very useful in determining sample locations and site features, and Global Positioning System (GPS) coordinates should be recorded for each sample location. This information will be very useful in determining areas to excavate, establish fencing to limit access to contaminated areas, establishing a footprint for the repository, potential staging areas for clean backfill and capping materials, etc. All data collected shall comply with Section VIII of the Settlement Agreement.

Sampling

Sampling shall occur in general accordance with the Superfund Lead Contaminated Residential Sites Handbook, the U.S. EPA Standard Operating Procedure 4230. 19A Soil Sampling at Lead-Contaminated Residential Sites; the U.S. EPA Standard Operating Procedure 4220. 03A Protocol for the Region 7 Lead-Contaminated Residential Yard Soil Cleanup Actions Procedures and Sequencing; the U.S. EPA General Quality Assurance Project Plan for Region 7's Superfund Lead-Contaminated Sites; as well as the site specific QAPP to be developed by the Respondents. A composite sampling approach may be taken with a 50-foot cell spacing and 5-9 aliquots per cell. In the case of composite grids, the GPS location may be the center of the grid cell.

Sampling Methods and Analysis

Of any sample analysis is conducted utilizing X-ray fluorescence (XRF) analyzers, a laboratory confirmation rate of no less than 10% shall be followed for submitting samples for standard laboratory analysis. Each aliquot (or discrete sample) will be collected into a clean container such as a stainless steel bowl or plate or plastic bag and thoroughly homogenized. After homogenization, the sample should be sieved using a Number 10 sieve unless it is determined to contain more than 20% moisture, in which case additional drying may be required. Composite samples should consist of discrete aliquots of equal amounts of soil. Organic material such as grass, roots, etc. , should be removed before sampling. The samples should be collected with a clean stainless steel trowel or spoon and placed into the clean container for homogenization. Sampling at depth may be done with a shovel, auger, or by mechanical means such as a direct-push rig into a clean core (MacroCore, etc.), or test pit using a backhoe or other excavator and collecting from the bucket as described above.

Samples should be mixed thoroughly without mechanically grinding or pulverizing the sample. Samples should not be forced through the sieve, as this changes the physical structure of the soil and may bias the analytical results. Samples may be crushed by hand to aid the sieving process. The sample shall be dried until it reaches no greater than 20% moisture. Samples shall be sieved with a #10 (2 mm) stainless steel mesh sieve. After drying, sieving and homogenizing the final sample matrix, it shall be then analyzed by XRF and/or submitted for laboratory analysis. Only nationally accredited laboratories are to be used by the Respondents utilizing SW-846 methods. Each sample will have a unique identification number based on the cell or discrete sample's location.

Decontamination

Equipment (spoons, sieves, trowels, augers, shovels, boring equipment, direct-push 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 and rinsing with deionized water.

Investigation-Derived Wastes

Used personal protective equipment and field disposable items will be bagged and disposed of in accordance with applicable laws and regulations. Soil sample remnants can be left with materials to be consolidated and capped or included with materials to be disposed off-site after determination of the soil as a hazardous waste subject to 40 C. F. R. 261.

TIME-CRITICAL REMOVAL ACTION

General Removal Action Requirements

Respondents shall undertake the removal actions discussed in this Section where the results of sampling conducted by EPA, KDHE or the Respondents document lead levels in excess of the Removal Action Levels (RALs) identified for this Site. For soils and wastes to be excavated and either removed or consolidated and capped with a designed repository, the industrial RAL of 1,200 milligrams per kilogram (mg/kg) for lead established at the adjacent Mission Clay Products Site will apply. Soils and wastes at the Site between the residential RAL of 550 mg/kg (established for the residential yard removal at the adjacent Pittsburg Zinc Site) and the industrial RAL may only remain at the Site with a KDHE Environmental Use Control (EUC). A KDHE Long-Term Care Agreement (LTCA) will be required for long-term care of any repository constructed at the Site. The removal actions shall be performed by the Respondents in accordance with the Settlement Agreement and schedule in the approved Removal Action Work Plan, and in accordance with the Action Memorandum prepared by the EPA.

Utilizing the field and laboratory sampling data, previous analytical data, and other information available the Respondents shall excavate all areas of soil and smelter waste exceeding 1,200 mg/kg total lead to 24 inches. If at 12 inches below ground surface, an average concentration of 1,199 mg/kg lead or less is achieved, the excavation may cease in that designated area. Areas of lead concentrations remaining at the surface above 400 mg/kg may need to be noted and surveyed for inclusion in the EUC as determined by KDHE. The EPA or a designated representative may monitor concentrations as excavation, consolidation and capping proceed using a field-portable XRF analyzer.

The Respondents shall manage excavation, consolidation and capping operations in a manner as to not allow prolonged and significant emissions of dust at the Site. If necessary, dust suppression and control shall be maintained by wetting soils and waste materials to minimize dust emissions. If, through inspection or otherwise, the EPA determines that visible emissions of dust are present, the EPA may modify this SOW to require use of air monitoring equipment. If such monitoring indicates total suspended lead particulates exceeding permissible exposure limits as established by the Occupational Safety and Health Administration (OSHA), removal, excavation, soil and waste consolidation and other activities causing dust emission shall cease until lead dust emissions are controlled and the suspended lead particulate analyses meet exposure limits.

Respondents shall provide provisions for run-on and run-off controls during construction, including location, frequency, and methods for collecting water samples which will ensure compliance with applicable water quality standards.

Respondents shall identify the method of transportation for any contaminated media to be removed from the Site, and ensure manifesting and transportation is conducted according to all applicable EPA and KDHE waste management regulations. The EPA Off-Site Rule shall apply to any disposal facility where wastes are being shipped to. Respondents shall ensure that the removal action complies with Applicable or Relevant and Appropriate Requirements (ARARs). ll removal and disposal activities conducted in execution of the Settlement Agreement and SOW shall conform to existing local, state and federal requirements.

Respondents shall exercise care so contaminated media is not spread onto non-contaminated areas. Any spillage or tracking of contaminated media shall be cleaned up immediately and reported promptly to the OSC.

Respondents shall ensure security of the work area at the Site, including fences and limitations to excavation areas and areas with heavy equipment. Work areas should be posted and visibly marked and secured at the end of the work day. Excavated areas shall be backfilled as soon as practicable. Trucks leaving the Site shall be covered if hauling contaminated media. Equipment being moved from contaminated to clean work areas shall be wet decontaminated and inspected by the Respondents prior to initiating work in clean areas.

Soil Treatment, Consolidation and Disposal

If contaminated media are being excavated for disposal, sampling will be conducted by Respondents consistent with requirements for waste characterization as determined by KDHE consistent with 40 C. F. R. Part 261 and in compliance with EPA's Off-Site Rule. Since contaminated media will likely be consolidated on-site for capping in a repository, staging piles of contaminated media ready for consolidation should be managed for dust control as described above.

Backfill and Capping Materials

Backfill and capping materials shall be brought to the Site and used as specified in the Removal Action Work Plan. Respondents shall be responsible for locating backfill, cover and capping materials to comply with the design and construction specifications approved by EPA in the Removal Action Work Plan. The EPA shall be allowed to inspect backfill, cover and capping materials and sample if deemed appropriate to ensure compliance with the Removal Action Work Plan. Backfill brought to the Site shall contain 240 mg/kg or less average lead concentration, 22 mg/kg or less arsenic concentration, and 25 mg/kg or less cadmium concentration.

If a compacted clay cap is being installed, Respondents shall ensure adequate compaction and lifts installed at the optimum moisture density range as determined by geotechnical analysis. If a vegetative protective cover is being placed over a cap, the cover layer shall be seeded and of sufficient quality to produce a hardy grass that will protect erosion of the cap. Respondents shall ensure trucks used to haul clean fill, cap and cover materials are free of contaminated media in order to avoid cross-contamination or spreading of contaminated media to non-contaminated areas.

POST REMOVAL SITE CONTROLS

Post Removal Site Controls (PRSC) shall be the responsibility of the Respondents. If the repository option is being implemented, Respondents will either (1) negotiate a Long-Term Care Agreement (LTCA) and Environmental Use Control (EUC) with KDHE to ensure a seamless transition to KDHE oversight of long-term care and management of the LTCA and EUC and/or (2) execute a common law restrictive covenant enforceable under Kansas law that shall be placed on the Site deed consistent with the restrictions outlined in Paragraph 29 of the Settlement Agreement. Respondents shall include the executed LTCA and EUC and any executed covenants and deed restrictions in the Final Removal Action Report.

REPORTING

Respondents shall submit monthly progress reports and a final Removal Action Report in accordance with the applicable sections of the Settlement Agreement. All other reporting requirements specified in this SOW and the Settlement Agreement shall be submitted in accordance with the schedules approved in the Removal Action Work Plan or as otherwise provided for in the Settlement Agreement.

APPENDIX B

DRAFT ACTION MEMORANDUM – ENFORCEMENT

SUBJECT: Request for a Removal Action at the 2nd and Smelter Site
Pittsburg, Crawford County, Kansas, Site ID# B7B3

FROM: Randolph L. Brown, P.G.
AERR/RRSS

THRU: Adam Ruiz, Section Chief
AERR/RRSS

TO: Mary P. Peterson, Director
Superfund Division

I. PURPOSE

The purpose of this Action Memorandum is to request approval for a potentially responsible party (PRP) time-critical removal action at the 2nd and Smelter Site (Site), which is located east and southeast of the intersection of East 4th Street and Joplin Street in Pittsburg, Crawford County, Kansas. The Site includes property owned by the South Kansas and Oklahoma Railroad L.L.C. and Watco Companies, L.L.C. (PRPs).

This Action Memorandum is intended to provide for a response action to minimize actual, or reduce the potential for, exposure to elevated levels of heavy metals in the soils at the Site by workers and trespassers. To meet this objective, the PRP will be required to implement one of the following options: (1) Excavate, consolidate, cover and cap all soils and waste at the Site where concentrations of lead exceed the industrial site-specific removal action level (RAL) of 1,200 milligrams per kilogram (mg/kg) in an on-site repository with a designed cover, with a Long Term Care Agreement (LTCA) administered by the Kansas Department of Health and Environment (KDHE) with a KDHE Environmental Use Control (EUC) or a common law restrictive covenant enforceable by Kansas law to ensure post-removal site control and care of the designed repository, and to include remaining areas of soil and waste not capped that are below the RAL but above the KDHE's Risk-based Standards for Kansas; or (2) excavate, remove and properly dispose of all soils at the Site where concentrations of lead in soil exceed the RAL of 1,200 mg/kg with an LTCA/EUC administered by the KDHE for remaining soil or waste above KDHE RSKs; or (3) excavate, remove and properly dispose of all soils at the Site where the concentrations of lead in soil exceed the KDHE RSKs if the PRP wishes to complete response actions without a KDHE EUC.

It is intended that this Action Memorandum accompany an Administrative Settlement Agreement Administrative and Order on Consent for Removal Action (Settlement Agreement). If the PRPs do not enter into a Settlement Agreement to conduct the response action, it is recommended that the EPA conduct the appropriate response actions as Fund-lead or issue a Unilateral Administrative Order. This Action Memorandum will be amended at that time as necessary to document the removal action being conducted as a Fund-lead action.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

CERCLIS ID#:	KSN000703668
REMOVAL CATEGORY:	Time-Critical
NATIONALLY SIGNIFICANT:	No

1. Removal site evaluation

The Site was the location of the Robert Lanyon Zinc Works, one of three zinc smelters which operated in the Pittsburg area, between the late 1870s until the early 1900s. The KDHE has identified the three former smelters (collectively referred to as the "Pittsburg Zinc Site") as the likely sources of elevated levels of lead, zinc and cadmium in smelter waste and soil at the Site.

In 2010, the KDHE and the City of Pittsburg conducted an investigation of the Pittsburg Zinc Site. The investigation revealed that approximately 1,961 cubic yards of visible smelter waste are present at the Site along with an estimated volume of 25,300 cubic yards of contaminated soil with lead concentrations of 1,000 mg/kg or greater. Lead has been historically identified at a maximum of 23,000 mg/kg, cadmium at 400 mg/kg, arsenic at 19 mg/kg and zinc at 95,000 mg/kg in previous investigations of the Site by the KDHE.

2. Physical location and site characteristics

The Site is located in Section 29, Township 30 South, Range 25 East, Pittsburg, Crawford County, Kansas east and southeast of the intersection of East 4th Street and Joplin Street. The geographic coordinates of the Site are 37.409089 degrees north latitude and 94.696473 degrees west longitude. The Site is primarily a large vacant lot containing a cellular tower and debris piles. It is in a mixed commercial and industrial area of Pittsburg with industrial facilities and a rail line to the east and mixed commercial/residential properties to the south and west. The Site is not in active use other than the cellular tower.

3. Release or threatened release into the environment of a hazardous substance, or pollutant, or contaminant

The primary contaminants of concern at this Site are heavy metals, primarily lead. Elevated lead concentrations at the Site have been documented by several KDHE investigations between 1987 and 2010. Lead is a hazardous substance as defined in Section 102 of the Comprehensive Environmental Response, Compensation and Liabilities Act (CERCLA), 42 U.S.C. § 9602, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR § 302.4. Lead is classified by the EPA as a probable human carcinogen and is a cumulative toxicant. A significant amount of lead that enters the body is stored in the bone for many years and can be considered an irreversible health effect.

Human exposure is primarily limited to site workers and trespassers at the Site. The EPA toxicologists ran several Adult Lead Methodology exposure models at the adjacent Mission Clay Products Site that incorporated site-specific bioavailability data and potential exposures to child-bearing female construction workers and juvenile trespassers that either have, or have the ability to, access the Site for business or recreational purposes. As a result, the EPA has selected the site-specific non-residential RAL of 1,200 mg/kg for lead for the Site.

4. National Priority List (NPL) status

The Site is not currently on nor is proposed for listing on the NPL.

5. Maps, pictures, and other graphic representations

Figure 1: Site location map
Figure 2: Site layout map

B. Other Actions to Date

Activities pertaining to the Site include:

- 1987 – 2010: Various KDHE inspections and site assessments;
- 2010-2015: Negotiations between the KDHE and PRPs;
- 2015: The KDHE RFA referring the Site to EPA.

To date, there have been no known EPA or KDHE response actions taken to reduce the risks to public health or the environment posed by lead contamination at the Site.

C. State and Local Authorities' Roles

In November 2015, the KDHE referred the Site to the EPA for a response action. Site coordination is continuing between the EPA, the KDHE and the City of Pittsburg. Close coordination between the EPA, the KDHE, and city entities will continue and the EPA intends to foster existing partnerships and ensure that the EPA considers all local and State input during planning and implementing the removal action at the Site.

Excavation of waste and contaminated soil may trigger waste management regulations, which will be coordinated through the KDHE's Bureau of Waste Management and the appropriate receiving facility to ensure compliance with the KDHE regulations and individual disposal facility permit requirements. Hazardous waste regulations pursuant to the Resource Conservation and Recovery Act (RCRA) most likely will not apply to excavated lead containing soils because of existing regulatory exemptions.

If the PRPs choose to consolidate, cap and cover wastes and contaminated soil in place, a LTCA between the PRPs and the KDHE for post-removal site control will be required. Additionally, an EUC between the PRPs and the KDHE or a common law restrictive covenant enforceable under Kansas law will be required for areas of the Site with soil lead levels at or above the KDHE's Risk-based Standards for Kansas (RSKs) as determined by the KDHE. If the LTCA with an EUC or restrictive covenant is not feasible, the PRPs will need to excavate and dispose of all waste and soils with lead levels exceeding the KDHE RSKs.

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

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 section 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.

Historical analytical results from samples collected by the EPA and the KDHE indicate that hazardous substances have been released into the environment at the Site. Lead has been identified at concentrations on the Site that can pose a threat to both human health and the environment. Lead has been documented on-site at concentrations of 1,200 mg/kg, the site-specific commercial/industrial removal action level (RAL) calculated by the EPA. Exposure to lead through inhalation or ingestion by site workers and nearby children may occur. In addition, animals and/or the aquatic food chain may be exposed.

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 commercial/industrial RAL of 1,200 mg/kg. Lead contaminated soils may migrate via airborne dust, surface runoff, percolation into groundwater, construction activity, children transporting soil/dust into their homes after playing in the affected areas and by pedestrian foot traffic. Exposure to lead through routes of inhalation or ingestion by residents, site workers and nearby children may occur.

300.415(b)(2)(v) – Weather conditions that may cause hazardous substances, pollutants or contaminants to migrate

Heavy metals in soil and waste may migrate via air and water erosion at the Site. Annual rainfall in Pittsburg is approximately 43 inches per year, which can result in both off-site surface water and sediment impacts and result in vertical migration of heavy metal contaminants into groundwater. Historical sediment and shallow groundwater results at the Site indicate heavy metal impacts to both media. Migration of hazardous substances via air or surface water could cause further risk of exposure to residents, site workers and nearby children.

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

There are no other federal or state response mechanisms available. ,mThe KDHE submitted a request for federal action to the EPA in November 2015.

IV. ENDANGERMENT DETERMINATION

The observed release of a hazardous substance at the Site, if not addressed by implementing the response action selected in this Action Memorandum, presents an imminent and substantial endangerment to the health of the public that comes in contact with contaminants at the Site and in the immediate vicinity, and to public welfare and the environment through the threats described in Section III.

V. PROPOSED ACTIONS AND ESTIMATED COST

A. <u>Proposed Actions</u>

1. Proposed action description

Assuming Option 1 in Section I is the preferred option by the Respondent, the proposed actions at the Site are excavation of soil and smelter waste containing lead concentrations above the site-specific commercial/industrial RAL of 1,200 mg/kg, on-site consolidation and capping of excavated soil and smelter waste with a designed cover, backfill/revegetation of excavated areas, and implementation of long-term care through a KDHE LTCA and EUC. Additional site evaluation may be needed in targeted areas to verify the extent of excavation and consolidation. If the PRPs do not wish to enter into the LTCA and EUC, Option 3 will include excavation in all areas where composite soil lead levels exceed the KDHE RSKs followed by off-site disposal. The intermediate Option 2 consists of removal of all soil and wastes exceeding the RAL with a KDHE LTCA and EUC to address the remaining soil and waste between the RAL and the KDHE RSKs.

Excavation will be conducted in lifts until the soil concentration falls below 1,200 mg/kg lead or until a maximum excavation depth of 12 inches is achieved. If soil lead levels below 12 inches are still in excess of 1,200 mg/kg, then the option exists to continue excavating until soil levels drop below the RAL, or leave waste in place at depth and implement long-term care through a KDHE LTCA and EUC. The altered areas will be replaced and/or covered with clean soils if not included in the consolidation and cap. Clean soils are soils that have been analyzed for lead and other heavy metals, and results indicate that the lead concentration is below 240 mg/kg and all other hazardous substances, pollutants or contaminants are below the KDHE's residential Tier 2 Risk-based Standards for Kansas (2015).

To date, there are no historical sample results from the Site that have failed Toxicity Characteristic Leachate Procedure (TCLP) for lead up to 2,700 mg/kg. Future excavated soils, where soil lead levels are greater than the historical maximum value of 2,700 mg/kg, will require TCLP analysis. If a soil or waste (or mixture) batch exceeds the TCLP threshold, the PRPs will be required to treat the soil/waste in a manner that will bind the toxic compounds to the soil so that they are not capable of leaving the soil matrix upon disposal, or dispose of excavated soil as a characteristic hazardous waste under RCRA regulations. Excavated areas will be revegetated as appropriate or will otherwise be restored as nearly as practicable to pre-excavation condition. Establishing a good vegetative cover by seeding or sod as quickly as possible is necessary to allay erosion and potential storm water runoff.

If the PRPs do not implement an action consistent with the provisions of the Order, this Action Memorandum will be revised to document a Fund-lead action for which the EPA can recover costs consistent with applicable statutes and regulations.

2. Contribution to remedial performance

The Site is not currently proposed for inclusion to the NPL. However, the actions proposed in this Action Memorandum should not be inconsistent with any future remedial response actions taken at the Site. It is expected that post-removal long term care will be executed with a LTCA and EUC under KDHE oversight.

3. ARARs

Section 300.415(j) of the NCP provides that removal actions shall, to the extent practicable considering the exigencies of the situation, attain applicable or relevant and appropriate requirements (ARARs) under federal environmental or state environmental facility siting laws. The following specific ARARs have been identified for this action:

Federal

- The CERCLA Off-Site Rule – promulgated pursuant to CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and formally entitled "Amendment to the National Oil and Hazardous Substances Pollution Contingency Plan; Procedures for Planning and Implementing Off-Site Response Action: Final Rule," 58 Fed. Reg. 49200 (Sept. 22, 1993), codified at 40 CFR § 300.440. This rule is applicable for all off-site shipments of waste.
- 40 CFR Part 268: RCRA Land Disposal Restrictions.
- 40 CFR Part 261: RCRA Hazardous Wastes.
- 40 CFR Part 262: Standards Applicable to Generators of Hazardous Waste.
- 40 CFR Part 263: Standards Applicable to Transporters of Hazardous Waste.
- 49 U.S.C. § 5101 et seq.: Federal Hazardous Materials Transportation Law and/or 49 CFR Parts 107, 171-177.
- 16 U.S.C. § 470, et seq.: National Historic Preservation Act of 1966.
- 29 CFR Part 1910: Occupational Safety and Health Standards: General Industry.
- RCRA, Subtitle D, Sections 1008 and 4001 et seq., 42 U.S.C. §§ 6907, 6941 et seq., State or Regional Solid Waste Plans and implementing federal and state regulations.
- 40 CFR Part 63: National Emission Standards for Hazardous Air Pollutants.
- 40 CFR 300.400, Off-Site Rule.

State

State ARARs and to be considered (TBC) criteria will be addressed during the removal consistent with the provisions of the Settlement Agreement and will be included in the Removal Action Work Plan submitted by the PRPs and approved by the EPA. If as anticipated the PRPs choose to consolidate, cap and cover wastes and contaminated soil in place, a LTCA between the PRPs and the KDHE for post-removal site control will be required. Additionally, an EUC between the PRPs and the KDHE or a common law restrictive covenant enforceable under Kansas law may be required for areas of the Site with soil lead levels at or above the KDHE's Risk-based Standards for Kansas (RSKs) as determined by the KDHE. If a LTCA and EUC or restrictive covenant is not feasible, the PRPs will need to excavate and dispose of all waste and soils with lead levels exceeding the KDHE RSKs.

4. Project schedule

Response activities are anticipated to begin 60 to 90 days from the signing of this Action Memorandum pending negotiation of the Settlement Agreement and final approval of the Work Plan by the EPA. It is anticipated that the project will require approximately 120 days for completion, pending EPA approval of the final Removal Action Report and LTCA and EUC negotiations and implementation between the PRPs and the KDHE. This removal action will be considered complete when all areas have been addressed consistent with this Action Memorandum, and the LTCA and EUC agreements have been successfully entered into between the PRPs and the KDHE and restrictive covenants (if applicable) executed.

B. Estimated Costs

This Action Memorandum assumes that the proposed actions will be performed by the PRPs. A detailed explanation of anticipated EPA project costs is therefore not included in this Action Memorandum. If a future EPA Fund-lead removal action is required, the Action Memorandum will be amended to recognize the change of Site status and will include projected EPA removal action costs to complete the removal action at the Site.

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

Delayed action will result in a continued release or threat of release of hazardous substances that may adversely impact public health or welfare or the environment.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

A Settlement Agreement will be negotiated with the PRPs and signed before initiation of the proposed removal actions. Because of the enforcement-lead nature of the proposed action, a separate Enforcement Addendum is not required.

IX. RECOMMENDATION

This decision document represents the selected removal action alternatives for addressing the release or threat of release of hazardous substances, pollutants or contaminants present at the Site. The removal action was developed in accordance with CERCLA (as amended), and is not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Eligible conditions exist at the Site to meet criteria in Section 300.415(b)(2) of the NCP for a removal action, and I recommend your approval of this proposed enforcement removal action. This is a PRP-lead removal action and does not require funding from the Regional Removal Allowance nor approval of a removal project ceiling.

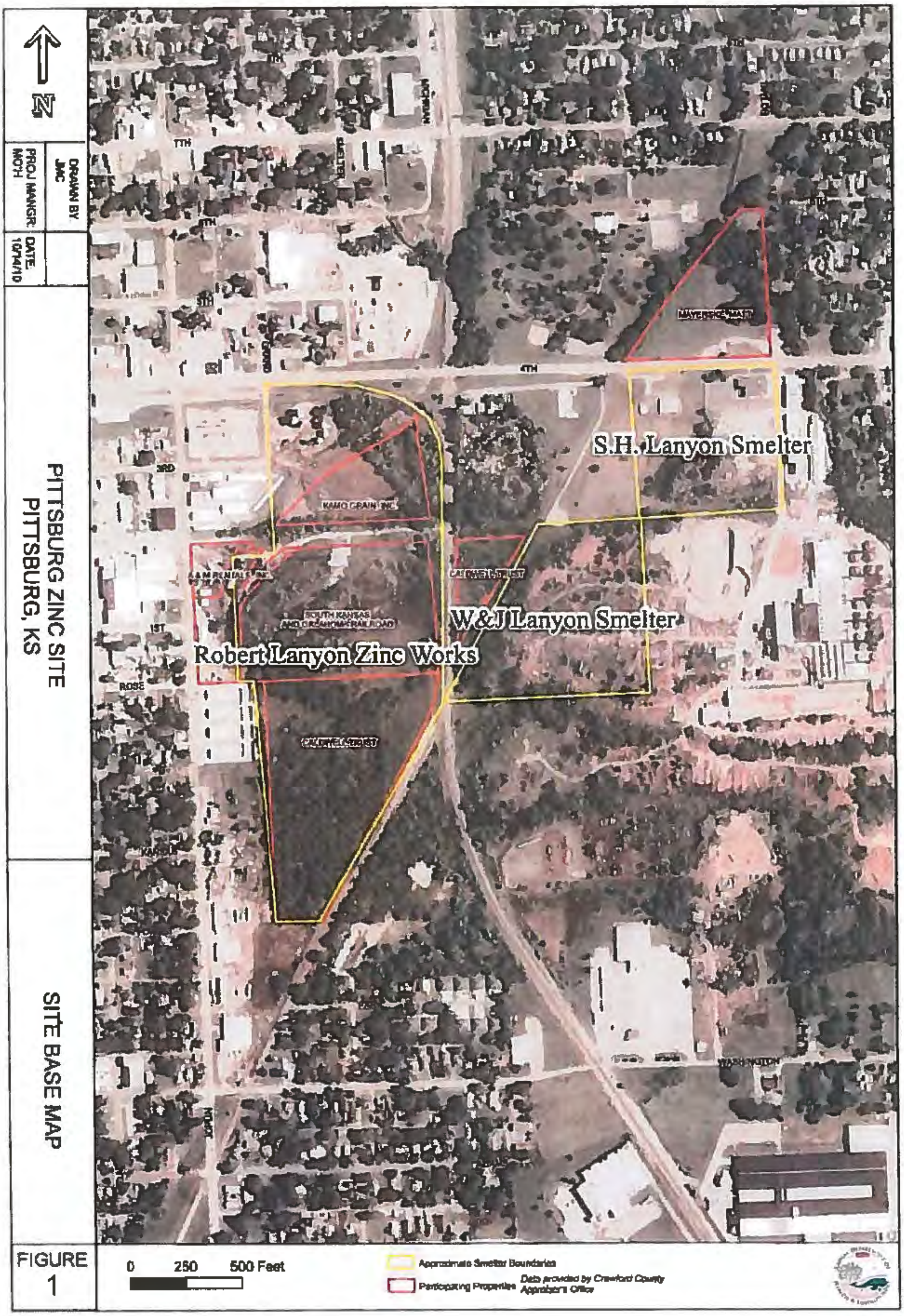
Approved:

______________________________ ________________

Mary P. Peterson, Director Date
Superfund Division

Attachments:

Figure 1: Site location map
Figure 2: Site layout map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PITTSBURG ZINC SITE
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SITE BASE MAP
S.H. Lanyon Smelter
W&J Lanyon Smelter
Robert Lanyon Zinc Works
KAMO GRAIN INC
CALDWELL TRUST
SOUTH KANSAS AND OKLAHOMA RAILROAD
4TH
3RD
1ST
ROSE
7TH
5TH
WASHINGTON
0 250 500 Feet
Approximate Smelter Boundaries
Participating Properties
Data provided by Crawford County Appraiser's Office
FIGURE 1

0 250 500 Feet

Concentrated Waste
Building Debris Pile
Participating Properties
Drainage

Data provided by Crawford County Appraiser's Office

N	DRAWN BY JMC PROJ MANGR: MOH	DATE: 10/14/10	PITTSBURG ZINC SITE PITTSBURG, KS	SITE FEATURES MAP

FIGURE 2