ATTACHMENT 2
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DESIGN AND ENGINEERING SERVICES (DES)
TASK ORDER (TO) STATEMENT OF WORK (SOW)
EPA REGION 7 – CHEROKEE ZINC – WEIR SMELTER SUPERFUND
SITE REMEDIAL INVESTIGATION/FEASIBILITY STUDY TASK ORDER

PURPOSE

The purpose of this TO is to prepare a supplemental remedial investigation (RI) and focused feasibility study (FS) of residential yards and private drinking water wells at the Cherokee Zinc – Weir Smelter (CZW) Superfund site in Weir, Kansas.

This SOW sets forth the framework and requirements for conducting the RI/FS activities at the Site. The goal is to complete a RI that provides the minimum amount of data necessary to support a Baseline Risk Assessment, a FS, and to use this data to develop a well-supported Record of Decision (ROD). Specifically, the RI involves an investigation to determine the source, nature, and extent of heavy metals contamination from historic smelting activities at the site. The FS involves an investigation to determine whether certain remedial alternatives would be appropriate for reducing or eliminating exposures to heavy metals at the Site.

In accordance with current applicable laws, regulations, guidance and policies, the contractor shall furnish all necessary personnel with appropriate knowledge and expertise, materials, equipment, and services needed for, or incidental to, performing and completing work in accordance with the requirements of this statement of work.

The work areas under this DES TO are separated into three (3) functional areas (tasks):

1. General Requirements
2. Field Work and Analytical Support
3. Remedial Investigation/Feasibility Study (RI/FS)

The contractor shall provide a cost/price proposal for all activities identified in this TO SOW in accordance with the pricing structure identified.

Site Background

The CZW site is located on the north side of the city of Weir, Cherokee County, Kansas, in the Arkansas-White-Red Region watershed. The Chicago Zinc Company and several other companies owned and operated a primary zinc smelter from approximately 1872 until 1920 in Weir, Cherokee County, Kansas. The Chicago Zinc Works began smelting zinc in 1873 and chose Weir as its location, due to nearby commercial coal deposits available to fuel the smelter and to the proximity to the Tri-State Mining District. According to historical information, smelting operations closed in approximately 1918 when natural gas wells in other areas of Kansas made smelter operations using coal less profitable.

Between 2004 and 2013, the Kansas Department of Health and Environment (KDHE) conducted soil testing at the former smelter as well as nearby properties. Lead was identified as the primary contaminant of concern. This sampling identified several properties with elevated lead levels, and KDHE requested the EPA to further evaluate residential lead contamination in Weir associated

with the former Cherokee Zinc smelter. These investigations have identified elevated levels of lead in residential yards in Weir that appear to be attributable to the former Cherokee Zinc smelter.

A Removal Assessment Report was completed by EPA's Superfund Technical Assessment and Response (START) contractor in February 2016. During the Removal Assessment, 22 properties were sampled in addition to surface water and sediments. These 22 properties included verification sampling at eight properties previously sampled by KDHE and an additional 14 properties previously not sampled.

The Removal Assessment Report concluded that 13 properties are impacted above the Removal Management Levels (RMLs) of 400 milligrams per kilogram (mg/kg) for lead in one or more quadrants outside of the drip zone. An additional five properties had lead levels above 400 mg/kg in the drip zone but no exceedances outside of the drip zone. Since the completion of the Removal Assessment over 50 additional residential properties have had lead detections in one or more quadrants outside of the "drip zone" above 400 mg/kg.

The Removal Assessment also concluded that soil, sediment and surface water were likely impacted above background concentrations for lead, arsenic, cadmium and possibly, selenium, on or adjacent to the former smelter property.

Wetlands adjacent to the former smelter property are contaminated and there is potential for downstream migration of metals. More than 50 residential yards are contaminated with lead above the RML of 400 mg/kg. On-going time-critical emergency removal action is not intended to address the longer-term response actions for source wastes, vacant residential properties, non-occupied residential properties, or lower-priority properties. Legacy contamination from the smelter has contaminated multiple residential yards. Based on sampling conducted by EPA after the Removal Assessment, lead is the primary metal of concern, but contaminated also includes arsenic, cadmium, and chromium, which exceed health-based benchmark levels.

Task 1: General Requirements

The general requirements section outlines activities that will be completed by the contractor for a majority of the work issued under this contract. The activities in this section include:

1.1 Systematic Project Planning;
1.2 Site-Specific Plan(s) Development;
1.3 Project Management, Monitoring and Reporting;
1.4 Greener Cleanups and Sustainability Considerations;
1.5 Optimization Considerations;
1.6 Community Involvement (Not Applicable) and
1.7 Task Order Close Out

1.1 Systematic Project Planning

The following planning activities may be conducted, as deemed appropriate, throughout the duration of the project. Project-specific requirements will be outlined in the specific task order document. These activities may include, but are not limited to:

- Kickoff meeting. Upon award of the task order, the contractor shall schedule a kickoff meeting with technical staff, quality staff, EPA, and other stakeholders to discuss the statement of work, site visit and document review needs. The meeting will also be used to outline project specific requirements including: project objectives, data gaps, potential sampling and analysis methods, and performance goals. The deliverable after the kickoff meeting will be a project schedule (in Microsoft Project format) and draft Site Management Plan. Scoping/Kickoff meetings will be documented in the UFP-QAPP. The meeting will be held remotely.
- Site visit to the Site for one senior-level and two mid-level members of the site team (2 days, 1-night lodging).
- Data Gaps Memorandum- For all appropriate media and pathways, prepare a memo presenting data, identifying remaining data gaps, and describe in general terms additional work necessary to address the data gaps identified.
    - Review of relevant background documentation including documents and data related to previous efforts previously undertaken at the site. These documents include, but are not limited to:
        - Documents included in the Cherokee Zinc – Weir Smelter Administrative Records which can be accessed online at: https://cumulis.epa.gov/supercpad/cursites/cadminrecord.cfm?id=0706550&doc=Y&colid=65668
        - Data Previously collected by the KDHE and by the EPA including the 2016 Removal Assessment Report and the KDHE Integrated Assessment Report.
        - Cherokee County Parcels database: https://ckcoks-appr.maps.arcgis.com/apps/webappviewer/index.html?id=627ad06596c04a65bb7ccfd790e8db3c
        - Cherokee County Property Ownership Map: https://www.kansasgis.org/orka/index.cfm?CFID=29050908&CFTOKEN=37296796&jsessionid=463020d9868b868c4fb874381e7e7b71e7a1TR
        - Site information and documents are available to the public at https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0706550 and https://response.epa.gov/site/site_profile.aspx?site_id=12698
    - Develop the Conceptual Site Model (CSM). Based on information available, update the conceptual site model. The CSM is intended to be an iterative, "living representation" of a site that summarizes and helps project teams visualize and understand available information. The CSM may be used as a primary planning, management, and decision-making tool to assist project teams throughout the life cycle stages of the project. For cost estimating purposes, assume one draft and one final version of the CSM.

- Conduct systematic planning meetings. Throughout the duration of the project the contractor shall schedule systematic planning meetings to revisit project specific requirements and

discuss any changes or modifications needed in project scope, schedule and/or budget. For cost estimation purposes, assume monthly 1-hour meetings with the project manager via conference call. The contractor shall prepare meeting agendas prior to the scheduled monthly meeting and prepare and send meeting minutes to the TOCOR within one week following the monthly meeting.

1.2 Site-specific Plan(s) Development

Review, prepare, update, and/or maintain relevant or required site-specific plans in accordance with applicable guidance. The types of site-specific plans necessary for the project will be outlined in the task order document. Site work shall not commence on a project until EPA (the task order contracting officer's representative [TOCOR] or the task order contract officer [TOCO]) have approved all the site-specific submittals required in the task order document. Some site-specific plans that may be requested include, but are not limited to the following:

- Site Management Plan (SMP). The SMP outlines the processes, procedures, and safeguards that will be used to ensure proper planning is considered for task order execution. This may include, but is not limited to the contractor's approach to the work assigned in the task order SOW, the contractor's communication process with the EPA, the contractor's points of contact for the task order (including key personnel), and a project schedule for task order activity tracking.
- Uniform Federal Policy Quality Assurance Project Plan (UFP-QAPP). A UFP-QAPP is a formal document describing in comprehensive detail the necessary quality assurance (QA), quality control (QC), and other technical activities that must be implemented to ensure that the results of the work performed will satisfy the stated performance criteria. A UFP-QAPP integrates technical and quality control aspects of a project throughout its life cycle, including planning, implementation, assessment, and corrective actions. The UFP-QAPP will provide:
    - Field sampling plan (FSP) that describes the number, type, and locations of samples and types of analyses. This document shall be informed, in part, by the Data Gaps Memorandum. Data needed for risk assessments and potential response alternatives should be anticipated to ensure adequate data are collected for evaluations and ultimately ensure efficiency in data collection efforts. The plan will also specify the method of disposal for investigation derived waste.
    - Data quality objectives (DQO) that specify the data needed to support decisions regarding remedial response activities.
- Data Management Plan (DMP). The DMP will detail the standard processes, procedures and tools that the contractor will use to support response activities and include requirements for all EPA data deliverables. The DMP will be developed in accordance with EPA national and region-specific data management plans or guidance, including SOP 2341.01A R7 Geospatial Data Deliverables. For cost estimating purposes, assume Microsoft Excel software can be utilized for data management purposes.
- Health and Safety Plan (HASP). The HASP specifies employee training, protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan.

These plans may require updating/modifying during the period of performance if project conditions change.

1.3 Project Management, Monitoring and Reporting

The contractor shall perform activities required to manage the task order effectively. Activities include: preparing monthly progress reports and invoices for the task order; monitoring cost and performance; and updating project schedules during the projects as requested by the TOCOR. Subcontract management and procurement costs shall be billed under the task to which they apply. The Executive Progress Report and Monthly Regional Summary described under Category 1: Contract-Level Deliverables under the DES national contract Attachment 5 – RAF Contract and Task Order Deliverables are not required under this task order.

Throughout the project, the contractor shall avoid duplication of prior efforts in gathering and assimilating project or site information. The contactor shall utilize the most applicable and current regulations and guidance documents when conducting work. The contractor shall continually look for and implement ways to streamline activities and minimize costs without compromising quality. The contactor shall assign work to personnel at the appropriate professional and/or technical levels and with the appropriate skill to most efficiently perform the task(s).

1.4 Greener Cleanups and Sustainability Considerations

These items shall be considered as noted in the contract level SOW.

1.5 Optimization Considerations

These items shall be considered as noted in the contract level SOW.

1.6 Community Involvement

Not Applicable.

1.7 Task Order Close Out

The contractor shall close out this task order. Activities include but are not limited to returning documents to EPA or other document repositories, file duplication, distribution, and storage, file archiving to meet Federal Records center requirements, and preparation of a close-out report.

Task 2: Field Work and Analytical Support

This section also outlines expectations for the contractor to manage, analyze evaluate and report data and information from field activities. All analytic work shall be done in compliance with the EPA Forum on Environmental Measurement Competency Policy (Policy to Assure Competency of Laboratories, Field Sampling, and Other Organizations Generating Environmental Measurement Data under Agency funded Acquisitions (Agency Policy Directive Number FEM 2011-01)).

The activities in this section include:

2.1 Field Investigation;
2.2 Analytical Support and Data Validation;
2.3 Data Compilation and Evaluation; and

2.4 Develop or Update the Site Conceptual Site Model (CSM)

2.1 Field Investigation

To conduct field investigation activities, the contractor shall perform all or a specified subset of the activities listed below. Where appropriate, activities should be performed in accordance with the EPA-approved UFP-QAPP:

- Access and correspondence with property owners as prescribed by data needs identified in the Data Gap Analysis TM and in consultation with the TOCOR.
  - The contractor shall provide the TOCOR with a draft request for access letter for EPA comment and approval.
  - The contractor shall attempt and log access to properties with two letter attempts and one phone call. If still unsuccessful in gaining access due to no response or denial, the contractor shall elevate to the TOCOR within two (2) days of the final attempt for access. The contractor shall provide the EPA with a PDF version of all access request letters sent to property owners that include the date sent.
  - The contractor shall provide EPA with an electronic copy of all signed access agreements and an Excel spreadsheet of all access attempts and property information.

  Access may have been granted for a number of properties as a part of previous removal efforts. For costing purposes, assume that access will be needed to 25 properties.

- Site Reconnaissance - Conduct site surveys including property, boundary, well inventory, utility rights-of-way, historic resources review, and topographic information. For cost estimating purposes, assume both remote survey of information and a one-week site visit with a mid- and jr.-level staff. Following completion of the site visit, the contractor shall submit a final trip report within 10 calendar days of return. Available resources include Cherokee County's Appraiser's GIS database (https://www.kansasgis.org/orka/map.cfm).

2.2 Analytical Support and Data Validation

The contractor may be required to perform analytical support and data validation activities. These activities may include:

2.2.1 Environmental sample collection;
2.2.2 Analytical Services and Support; and
2.2.3 Data Validation

2.2.1 Environmental Sample Collection

The contractor shall provide personnel and equipment to collect environmental samples. The contractor shall capture sampling, observational, and monitoring field data and provide this data to EPA in a Scribe-compatible data deliverable. A logbook shall be kept as record of activities for all field events. In addition to the required Scribe-compatible data deliverable, the contractor may also deliver data in a Microsoft Excel file. Samples collected may include, but are not limited to, sample matrices such as solids, water, soil, and sediments. The contractor shall collect, handle and

transport samples in accordance with the project-specific UFP-QAPP. The contractor shall be responsible for submitting timely Analytical Service Requests (ASRs) to the EPA R7 lab.

For cost estimating purposes, assume two staff (mix of mid-level and jr. scientist) shall conduct two (2) one-week trips for performance of sampling activities for the RI and HHRA. Samples are assumed to be analyzed by the EPA R7 lab and analysis should not be included in cost estimates.

2.2.2 Analytical Services and Support

Throughout the project planning and implementation, the contractor shall work with the TOCOR on selection of analytical services. The contractor shall request and perform analytical services in compliance with EPA requirements.

For cost estimating purposes, it is assumed that the Region 7 lab will analyze all samples, and therefore analysis costs do not need to be included.

2.2.3 Data Validation

The EPA Region 7 Laboratory will conduct data validation on samples analyzed at the Region 7 Laboratory. The contractor shall conduct data validation activities and provide data validation of data packages and electronic deliverables per the contract level SOW for any samples analyzed at outside laboratories. Upon completion of the data validation, the contractor shall submit the required data validation report to the TOCOR as specified in the Deliverables Table.

Also, upon completion of the data validation, the contractor shall send data transmittal letters to corresponding property owners as determined by the TOCOR and as specified in the Deliverables Table. All data transmittal letters shall be submitted for TOCOR review prior to sending to the corresponding property owners. For cost estimating purposes, assume 25 data transmittal letters will be needed.

2.3 Data Management and Evaluation

The contractor shall provide data management support services as specified in the contract level SOW. The contractor shall provide a data evaluation technical memorandum for each field event. Each memo should include information such as: description of field activities performed, data collected, figures depicting data, and deviations from the workplan. For cost estimating purposes assume that there are two (2) field events and two (2) memos.

2.4 Update the Conceptual Site Model

Based on information collected under this task, update the CSM in a technical memorandum. The CSM is intended to be an iterative, “living representation” of a site that summarizes and helps project teams visualize and understand available information. For cost estimating purposes assume that only one CSM update technical memorandum will be requested.

Task 3: Treatability Studies

Not Applicable.

Task 4: Remedial Investigation/Feasibility Study (RI/FS)

The RI/FS is the process for characterizing the nature and extent of contamination and risks posed by uncontrolled hazardous waste sites and for evaluating potential remedial options. The goal is to develop the appropriate and defensible amount of data necessary to support the lead Agency's selection and to make an informed implementation decision for site remediation in the ROD. This section sets forth the basic framework and requirements for this effort. The activities in this section include:

4.1 Remedial Investigation (including risk assessment);
4.2 Feasibility Study; and
4.3 Post RI/FS Support

For each draft document, comments will be provided by the EPA and the KDHE. Responses to comments shall be prepared prior to submitting a subsequent version of the document unless, at the TOCOR's discretion, this is deemed unnecessary.

4.1 Remedial Investigation

Conduct the remedial investigation to synthesize all of the information available in order to develop or update the CSM for the site and conduct an analysis of site risks. RI activities may include, but are not limited to, the following subtasks:

4.1.1 Identification of Federal/State Chemical and Location Specific Applicable Relevant and Appropriate Requirements (ARARs)

Conduct a preliminary review and identification of ARARs that may affect the remedy selection. The contractor shall prepare an ARARs Technical Memorandum that will be used to screen potential remedial technologies and alternatives.

4.1.2 Risk Assessment

Not applicable. The human health risk assessment and screening level ecological risk assessment will be completed by the EPA.

4.1.3 Remedial Investigation Report

The contractor shall develop and deliver draft(s) and a final RI report. For cost estimating purposes, assume one draft RI Report and one final RI Report.

4.2 Feasibility Study

Conduct the FS to develop an appropriate range of cleanup alternatives that ensure the protection of human health and the environment and meet ARARs. These alternatives may involve, depending on site-specific circumstances, the complete elimination or destruction of hazardous substances at the site, the reduction of concentrations of hazardous substances to acceptable health-based levels, and prevention of exposure to hazardous substances via engineering or institutional controls, or some combination of the above. FS activities may include, but are not

limited to, the following:

4.2.1 Development and Screening of Alternatives

The development and screening of alternatives shall be developed as a technical memorandum per the contract level SOW.

4.2.2 Remedial Alternatives Evaluation

Remedial alternatives evaluation shall be developed as a technical memorandum per the contract level SOW.

4.2.3 Feasibility Study Report

The contractor shall develop and deliver draft(s) and a final FS report. For cost estimating purposes, assume one draft FS Report and one final FS report.

4.3 Post RI/FS Support

The contractor shall provide support required for preparation of the Proposed Plan with the preferred alternatives and ROD for the site. Typical activities include, but are not limited to, the following:

- Attend public meetings, briefings, or public hearings;
- Prepare presentation materials, data summary tables, or figures;
- Provide technical assistance in the preparation of the Responsiveness Summary; and
- Provide technical information to support preparation of the Proposed Plan and ROD.

For cost estimation purposes, assume mid-level staff shall develop a presentation with support from senior level staff and technical staff. Assume a mid-level scientist, or equivalent, to attend one meeting in Weir, Kansas (include one-night stay for this meeting). Meeting preparation and follow-up shall be via phone and/or email.

Task 5: Engineering Evaluation/Cost Analysis (EE/CA)

Not Applicable.

Task 6: Remedial Design (RD)

Not Applicable.

Task 7: Oversight or Oversight Support

Not Applicable.

Task 8: Other Work Areas/General Technical Assistance

The contractor shall provide the following support under this task:

8.1 Targeted Brownfields Assessment (TBA)

Not Applicable.

8.2 EPA-lead Remedial Action (RA) or EPA-lead Removal Action (RV) Support

Not Applicable.

8.3 Five-Year Review

Not Applicable.

8.4 Optimization Reviews

Not Applicable.

8.5 Radiation Support

Not Applicable.

8.6 Negotiation, Litigation, and Expert Witness Support

The contractor shall provide services to assist with negotiation and litigation, including negotiation support for Federal Facility Agreements (FFAs) and Interagency Agreements (IAs), consent decrees, administrative order. This includes but is not limited to producing site documents to support discovery activities; preparing for the provision of expert testimony during litigation; attending and assisting in negotiation sessions and meetings. The contractor shall not prepare testimony for expert witnesses who are not EPA personnel.

For cost estimating purposes, assume one senior and one mid-level member of the site team to participate in an estimated three (3) one-hour meetings via conference call during the period of performance. For cost estimation purposes, assume a senior or mid-level engineer, or equivalent, shall provide technical assistance and information via phone and/or email for an estimated 10 hours for the period of performance with support from senior level staff.

8.7 Records Management and Administrative Support

Not Applicable.

8.8 Equipment/Services/Utilities, Site Maintenance and Site Security/Guard Services

Not Applicable.

8.9 EPA Initiatives

Not Applicable.

Proposed Deliverables Table

The table below identifies proposed deliverables for this task order. All final documents are due within 15 days after receipt of EPA comments, unless otherwise requested or specified on the deliverables table. Days listed in this table are calendar days. It is expected that all deliverables will be in electronic format.

Task	Deliverable	Due Date
1.1	Kickoff Meeting	Mutually agreeable date as soon after issuance of the TO as possible
	Site Visit	Within 30 days after TO award
	Review relevant background documentation	15 days after TO award
	Systematic Planning Meeting Notes	10 days after planning meetings
	Data Gap Review Technical Memorandum (Draft and Final)	Draft 45 days after TO award; Final 15 days after receiving comments from the EPA on the Draft Data Gap Review Technical Memorandum
1.2	Draft Site Management Plan (SMP) including Project Schedule	7 days after Kickoff Meeting
	Final SMP including Project Schedule	7 days after receiving comments from the EPA on the Draft SMP
	Unified Federal Policy-Quality Assurance Quality Control Plan (UFP-QAPP) (Draft and Final)	Draft 15 days after the EPA approval of Final Data Gap Review Memorandum; Final 15 days after the receiving comments from the EPA on the Draft UFP-QAPP
	Data Management Plan (DMP) (Draft and Final)	Draft 15 days after the EPA approval of Final Data Gap Review Memorandum; Final 15 days after the receiving comments from the EPA on the Draft DMP
	Health and Safety Plan (HASP) (Draft and Final)	Draft 15 days after the EPA approval of Final Data Gap Review Memorandum; Final 15 days after the receiving comments from the EPA on the Draft HASP
1.3	Monthly Project Reports	As Required by the Contract
1.7	Close-out Report	
2.1	Signed Access Agreements/Access Tracking Spreadsheet	To Be Decided Based Upon Prior Activities
2.1	Trip Report	
2.2.3	Data Transmittal Letters	
2.3	Data Evaluation Technical Memorandums	
2.4	CSM Update Technical Memorandum	
4.1.1	ARARs Identification Letter Memorandum	
4.1.3	Draft RI Report	
4.1.3	Final RI Report	
4.2.1	RA Screening Memorandum	
4.2.2	RA Evaluation Memorandum	
4.2.3	Draft FS Report	
4.2.3	Final FS Report	
8.7	Site documents for discovery activities	