

# **Request for Bid**

**Fixed-Price Bid to Result**

**Site Remediation through Closure**

## **Solicitor**

**Root Oil Co., Inc.**

**Former DD Garage**

**156 Main Street**

**Knoxville, Tioga County, PA 16928**

**PADEP Facility ID #: 59-11706      PAUSTIF Claim #: 2012-0125(S)**

## **Date of Issuance**

**September 18, 2015**

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The Pennsylvania Underground Storage Tank Indemnification Fund (PAUSTIF), on behalf of the claimant who hereafter is referred to as the Client or Solicitor, is providing this Request for Bid (RFB) to prepare and submit a bid to complete the Scope of Work (SOW) for the referenced Site. The Solicitor is the current owner/operator of the Site. PAUSTIF has determined that the claim reported by the Solicitor is eligible for coverage from the PAUSTIF subject to the applicable statutes and regulations. Reimbursement of Solicitor approved reasonable and necessary costs, not to exceed the claim aggregate limit, for the corrective action work described in this RFB will be provided by PAUSTIF. Solicitor is responsible to pay any applicable deductible and/or proration.

Each bid response will be considered individually and consistent with the evaluation process described in the PAUSTIF Competitive Bidding Fact Sheet which can be downloaded from the PAUSTIF website <http://www.insurance.pa.gov>.

## **Calendar of Events**

<b>Activity</b>	<b>Date and Time</b>
Notification of Intent to Attend Site Visit	October 5, 2015 by 5 p.m.
Mandatory Pre-Bid Site Visit	October 6, 2015 at 1 PM
Deadline to Submit Questions	October 23, 2015 by 5 p.m.
Bid Due Date and Time	October 30, 2015 by 3 p.m.

## Contact Information

Technical Contact
<p>Mr. Joseph Ozog, Jr., P.G. Excalibur Group, LLC 91 Park Avenue Windber, PA 15963 <a href="mailto:joeozog@excaliburgrpilc.co">joeozog@excaliburgrpilc.co</a></p>

All questions regarding this RFB and the subject Site conditions must be directed via email to the Technical Contact identified above with the understanding that all questions and answers will be provided to all bidders. The email subject line must be “**Root Oil Co. – Former DD Garage #2012-0125(S) – RFB QUESTION**”. Bidders must neither contact nor discuss this RFB with the Solicitor, PAUSTIF, the Pennsylvania Department of Environmental Protection (PADEP), or ICF International (ICF) unless approved by the Technical Contact. Bidders may discuss this RFB with subcontractors and vendors to the extent required for preparing the bid response.

## Requirements

### Mandatory Pre-Bid Site Meeting

The Solicitor, the Technical Contact, or their designee will hold a mandatory Site visit on the date and time listed in the Calendar of Events to conduct a Site tour for one (1) participant per bidding company. The Technical Contact may answer questions at the Site meeting or may collect questions and respond via email. All questions and answers will be provided via email to all attendees. This meeting is mandatory for all bidders, no exceptions. This meeting will allow each bidding company to inspect the Site and evaluate Site conditions. **A notice of the bidder's intent to attend this meeting is requested to be provided to the Technical Contact via email by the date listed in the Calendar of Events with the subject "Root Oil Co. – Former DD Garage #2012-0125(S) – SITE MEETING ATTENDANCE NOTIFICATION".** The name and contact information of the company participant should be included in the body of the email. Notification of intent to attend is appreciated; however, it is not required. Attendance at the Pre-Bid Site Meeting is mandatory.

### Submission of Bids

To be considered for selection, **one (1) hard copy of the signed bid package and one (1) electronic copy (one (1) PDF file on a compact disk (CD) included with the hard copy) must be provided directly to the PAUSTIF's third party administrator, ICF, to the attention of the Contracts Administrator.** The Contracts Administrator will be responsible for opening the bids and providing copies to the Technical Contact and the Solicitor. Bid responses will only be accepted from those companies that attended the Mandatory Pre-Bid Site Meeting. **The ground address for overnight/next-day deliveries is ICF International, 4000 Vine Street, Middletown, PA 17057, Attention: Contracts Administrator. The outside of the shipping package containing the bid must be clearly marked and labeled with "Bid – Claim #2012-0125(S)".** Please note that the use of U.S. Mail, FedEx, UPS, or other delivery method does not guarantee delivery to this address by the due date and time listed in the Calendar of Events for submission. Companies mailing bids should allow adequate delivery time to ensure timely receipt of their bid.

**The bid must be received by 3 p.m., on the due date shown in the Calendar of Events.** Bids will be opened immediately after the 3 p.m. deadline on the due date. Any bids received after this due date and time will be time-stamped and returned. If, due to inclement weather, natural disaster, or any other cause, the PAUSTIF's third party administrator, ICF's office is closed on the bid due date, the deadline for submission will automatically be extended to the next business day on which the office is open. The PAUSTIF's third party administrator, ICF, may notify all companies that attended the Mandatory Pre-Bid Site Meeting of an extended due

date. The hour for submission of bids shall remain the same. Submitted bid responses are subject to the Pennsylvania Right-to-Know Law.

## **Bid Requirements**

The Solicitor wishes to execute a mutually agreeable contract with the selected consultant ("Remediation Agreement"). The Remediation Agreement is included as Attachment 1 to this RFB. The bidder must identify and document in their bid any modifications that they wish to propose to the Remediation Agreement language in Attachment 1 other than obvious modifications to fit this RFB (e.g., names, dates, and descriptions of milestones). The number and scope of any modifications to the standard agreement language will be one (1) of the criteria used to evaluate the bid. **Any bid that does not clearly and unambiguously state whether the bidder accepts the Remediation Agreement language in Attachment 1 "as is", or that does not provide a cross-referenced list of requested changes to this agreement, will be considered non-responsive.** This statement should be made in a Section in the bid entitled "Remediation Agreement". Any proposed changes to the agreement should be specified in the bid; however, these changes will need to be reviewed and agreed upon by both the Solicitor and the PAUSTIF.

The selected consultant will be provided an electronic copy (template) of the draft Remediation Agreement in Microsoft Word format to allow agreement-specific information to be added. The selected consultant shall complete the agreement-specific portions of the draft Remediation Agreement and return the document to the Technical Contact within 10 business days from date of receipt.

The Remediation Agreement fixed costs shall be based on unit prices for labor, equipment, materials, subcontractors/vendors, and other direct costs. The total cost quoted in the bid by the selected consultant will be the maximum amount to be paid by the Solicitor unless a change in scope is authorized and determined to be reasonable and necessary. There may be deviations from and modifications to this SOW during the project. The Remediation Agreement states that any significant changes to the SOW will require approval by the Solicitor, PAUSTIF, and PADEP. NOTE: Any request for PAUSTIF reimbursement of the reasonable costs to repair or replace a well will be considered on a case-by-case basis.

The bidder shall provide its bid cost using the Bid Cost Spreadsheet (included as Attachment 2) with descriptions for each task provided in the body of the bid document. Please note, if costs are provided within the text of the submitted bid and there is a discrepancy between costs listed in the Bid Cost Spreadsheet and in the text, the costs listed within the Bid Cost Spreadsheet will be used in the evaluation of the bid and in the Remediation Agreement with the selected consultant. Bidders are responsible to ensure spreadsheet calculations are accurate. **The technical score for bids will be based solely on those tasks represented as milestones**

**included in the Bid Cost Spreadsheet and the total bid cost.** Any optional bidder-defined tasks, milestones, or cost adders that are not requested as part of this RFB will not be considered by the Bid Evaluation Committee in the technical review and technical score for the bid.

In addition, the bidder shall provide:

1. The bidder's proposed unit cost rates for each expected labor category, subcontractors, other direct costs, and equipment;
2. The bidder's proposed markup on other direct costs and subcontractors (if any);
3. The bidder's estimated total cost by task consistent with the proposed SOW identifying all level-of-effort and costing assumptions; and
4. A unit rate schedule that will be used for any out of scope work on this project.

Each bid will be assumed to be valid for a period of up to 120 days after receipt. The costs quoted in the Bid Cost Spreadsheet will be assumed to be valid for the duration of the Remediation Agreement.

Please note that the total fixed-price bid must include all costs, including those cost items that the bidder may regard as "variable". These variable cost items will not be handled outside of the total fixed-price quoted for the SOW unless the RFB requests costing alternatives for specific items or services. Any bid that disregards this requirement will be considered non-responsive to the bid requirements and, as a result, will be rejected and will not be evaluated.

The RFB is requesting a total fixed-price bid (unless the RFB requests costing alternatives for specific items or services). PAUSTIF will not agree to assumptions (in bids or the selected bidders executed Remediation Agreement) referencing a level of effort and/or hours. Costs provided in your bid should be developed using your professional opinion, experience, and the data provided. PAUSTIF will not reimburse costs for additional hours to complete activities included as part of the base bid/contract price.

Each bid response document must include at least the following:

1. Demonstration of the bidder's understanding of the Site information provided in this RFB, standard industry practices, and objectives of the project.
2. A clear description, specific details, and original language of how the proposed work scope will be completed for each milestone. The bid should specifically discuss all tasks that will be completed under the Remediation Agreement and what is included (e.g., explain groundwater purging/sampling methods, which guidance documents will be followed, what will be completed as part of the Site specific work scope/SCR/RAP

implementation). Recommendations for changes/additions to the Scope of Work proposed in this RFB shall be discussed, quantified, and priced separately; however, failure to bid the SOW “as is” may result in a bid not being considered.

3. A copy of an insurance certificate that shows the bidder’s level of insurance consistent with the requirements of the Remediation Agreement. Note: The selected consultant shall submit evidence to the Solicitor before beginning work that they have procured and will maintain Workers Compensation, commercial general and contractual liability, commercial automobile liability, and professional liability insurance commensurate with the level stated in the Remediation Agreement and for the work to be performed.
4. The names and brief resumes/qualifications of the proposed project team including the proposed Professional Geologist and Professional Engineer (if applicable) who will be responsible for overseeing the work and applying a professional seal to the project deliverables (including any major subcontractor(s)).
5. Responses to the following specific questions:
  - a. Does your company employ a Pennsylvania-licensed Professional Geologist that is designated as the proposed project manager? How many years of experience does this person have?
  - b. How many Pennsylvania Chapter 245 projects is your company currently the consultant for in the PADEP Region where the Site is located? Please list up to 10.
  - c. How many Pennsylvania Chapter 245 Corrective Action projects involving an approved SCR, RAP, and RACR has your company and/or the Pennsylvania-licensed Professional Geologist closed (i.e., obtained Relief from Liability from the PADEP) using any standard?
  - d. Has your firm ever been a party to a terminated PAUSTIF-funded Fixed-Price (FP) or Pay-for-Performance (PFP) contract without attaining all of the milestones? If so, please explain.
6. A description of subcontractor involvement by task. Identify and describe the involvement and provide actual cost quotations/bids/proposals from all significant specialized subcontracted service (e.g., drilling/well installations, laboratory, etc.). **If a bidder chooses to prepare its bid without securing bids for specialty subcontract services, it does so at its own risk. Added costs resulting from bid errors, omissions, or faulty assumptions will not be considered for PAUSTIF reimbursement.**
7. A detailed schedule of activities for completing the proposed SOW including reasonable assumptions regarding the timing and duration of Solicitor reviews (if any) needed to complete the SOW. Each bid must provide a schedule that begins with execution of the Remediation Agreement with the Solicitor and ends with completion of the final

milestone proposed in this RFB. Schedules must also indicate the approximate start and end date of each of the tasks/milestones specified in the Scope of Work, and indicate the timing of all proposed key milestone activities (e.g., within 30 days of the contract being executed).

8. A description of how the Solicitor, ICF, and the PAUSTIF will be kept informed as to project progress and developments and how the Solicitor (or designee) will be informed of and participate in evaluating technical issues that may arise during this project.
9. A description of your approach to working with the PADEP. Describe how the PADEP would be involved proactively in the resolution of technical issues and how the PADEP case team will be kept informed of activities at the Site.
10. Key exceptions, assumptions, or special conditions applicable to the proposed SOW and/or used in formulating the proposed cost estimate. Please note that referencing extremely narrow or unreasonable assumptions, special conditions, and exceptions may result in the bid response being deemed “unresponsive”.

## **General Site Background and Description**

Each bidder should carefully review the existing information and documentation provided in Attachment 3. The information and documentation has not been independently verified. Bidders may wish to seek out other appropriate sources of information and documentation specific to this Site. If there is any conflict between the general Site background and description provided herein and the source documents within Attachment 3, the bidder should defer to the source documents.

### **Background Summary**

The former DD Garage Site is located at 156 Main Street in Knoxville, Pennsylvania. The Site is owned by the Solicitor (Root Oil Co., Inc. [Root Oil]), and is an irregular-shaped parcel encompassing ~0.24-acre adjoining the north side of Main Street (also known as PA Route 49). See Figures 1 and 2 in Attachment 3a. Currently, the site is vacant and all site structures have been razed and the USTs and dispensing equipment removed or closed in-place (a kerosene tank). Surrounding properties consist of a mixture of commercial businesses and residences. The Site adjoins the roadway right-of-way (ROW) for Main Street to the south followed by residential properties, and commercial businesses are present to the east and west with residential properties to the north.

The Site has been inactive with no surface structures for ~13 to 15 years. However, as discussed below, the USTs and dispensing equipment were not removed until 2012. Former facility operations included retail gasoline and kerosene fuel sales, managing a convenience store and automobile servicing and repair. The former convenience store and automobile servicing/repair shop were housed in a common building, once located in the northern portion of the Site that was demolished/removed in 1999. The former UST systems, owned/operated by Root Oil, included two 4,000-gallon gasoline tanks (Tanks 001 and 002); one 2,000-gallon gasoline tank (Tank 003); one 1,000-gallon kerosene tank (Tank 004); product piping; and three product dispensers located on one concrete island covered by a canopy. Tanks 001 through 003 were installed in 1989, the installation date for Tank 004 is not known. All four tanks were situated within a common tank cavity west of the former dispenser island in the southern portion of the Site.

Retail kerosene sales ceased sometime in the 1980s, and retail gasoline sales ceased around 2000 based on the gasoline UST system change of registration to Temporary Out of Use status. The kerosene tank still remains at the Site as it was closed in-place sometime in the late 1980s<sup>1</sup>. With the exception of the kerosene tank, UST systems were closed via removal in July

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<sup>1</sup> Tank noted to be filled with a "slurry"-type material, and was not removed as a portion of the tank is beneath the adjoining sidewalk.

2012. See Figures 2 and 3 in Attachment 3a for the location and layout of the former UST systems and other site features.

### **Release History / UST System Closure**

In November 1998, while performing UST system upgrades on the 3 gasoline tank systems, soil impacts were observed beneath the dispenser island. Upgrades at this time included the removal of steel product piping and replacement with flexible non-metallic piping, and installation of overfill prevention and automatic tank gauging. A total of ~14 tons of contaminated soil was removed from beneath the dispenser island and product piping trenches. Of the 5 post-excavation soil samples collected from beneath the dispenser island and product piping trenches, only one sample collected beneath a product dispenser exhibited a concentration of benzene slightly exceeding the PADEP Statewide Health Standard (SHS).<sup>2</sup> PADEP issued a No Further Action / Relief of Liability for this release incident in June 1999.<sup>3</sup>

The current release and subject of PAUSTIF Claim #2012-0125(S), was discovered during UST closure activities that occurred in July 2012 when the three gasoline USTs (Tanks 001 through 003), along with the associated product piping, product dispensers and associated concrete island and canopy were closed via removal and transport from the Site. The locations of these former USTs and dispensing equipment are shown on Figure 3 and in the August 2012 UST Closure Report (Attachment 3j). During closure activities, a “sheen” was noted on the groundwater surface in the tank cavity and obvious impacts to soil including odors and visible soil staining were reported.<sup>4</sup> Also during closure activities, the 1,000-gallon kerosene tank was observed at the south side of the tank cavity. Field personnel confirmed that the tank was filled with a “solid slurry” and appeared to be “in stable condition”. As mentioned earlier, the kerosene tank was left in place due to its proximity to the sidewalk and West Main Street.<sup>5</sup> Results from the laboratory analysis of UST closure soil and water samples collected from the tank pit were either below the SHS or not detected (“non-detect”), however, the three soil samples collected from beneath the dispenser island had concentrations of unleaded gasoline constituents exceeding the SHS. Although the source of the release is noted as “unknown”, a reasonable presumption is that the dispenser operations led to the contamination due to the location of the soil impacts.

### **Site Characterization Activities**

Site characterization activities were conducted between May 2013 and February 2015 by the Solicitor’s consultant, Juniata Geosciences, LLC (Juniata), in response to the July 2012 confirmed release. The characterization activities included advancing six soil borings (SB-1

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<sup>2</sup> Underground Storage Tank System Closure Report Form, dated January 26, 1999 (Attachment 3j).

<sup>3</sup> No Further Action / Relief of Liability letter prepared by PADEP, dated June 9, 1999 (Attachment 3k).

<sup>4</sup> Notification of Reportable Release/Notification of Contamination Form, dated July 26, 2012 (Attachment 3k).

<sup>5</sup> Notification of Reportable Release/Notification of Contamination Form, dated July 26, 2012 (Attachment 3k).

through SB-6), collecting / analyzing soil samples from the boreholes, collecting / analyzing a grab groundwater sample from borehole SB-2, installing eight monitoring wells (MW-1 through MW-8) both on- and off-property, collecting / analyzing soil samples from well boreholes, installing two soil vapor sampling points (SVP-1 and SVP-2), collecting / analyzing soil vapor samples, aquifer testing via single-well slug testing, and collecting / analyzing groundwater samples from all of the monitoring wells. Locations of the soil borings, monitoring wells, and soil vapor sampling points are shown on Figures 2 and 4 in Attachment 3a.

Based on the available information, unconsolidated materials underlying the Site consist of a mixture of clayey sand and silt, and sand, silt and gravel. No bedrock was encountered during the site characterization activities. Groundwater on-site is reportedly first encountered within the overburden soils and groundwater flow direction is generally in a south/southeasterly direction as shown on the figures in the Remedial Action Progress Reports (RAPRs), the January 2014 Site Characterization Report (SCR) and the May 2015 combined Updated SCR and Remedial Action Plan (RAP) in Attachments 3c through 3i.

Concentrations of benzene, toluene, ethylbenzene, xylenes, naphthalene, 1,2,4-trimethylbenzene (1,2,4-TMB) and 1,3,5-trimethylbenzene (1,3,5-TMB) have been identified exceeding the PADEP SHS in unsaturated soils beneath the former dispenser island. Concentrations of 1,2,4-TMB and 1,3,5-TMB were found to exceed the PADEP SHS in periodically saturated and saturated soils beneath and in the immediate area of the former dispenser island. TMB impacts exceeding the PADEP SHS in periodically saturated and saturated soils extend to the east beyond on-property well MW-3 to the area of off-property well MW-06. Given the close proximity of West Main Street, impacts in the periodically saturated soils may extend beneath this adjoining roadway south of the Site. The soil boring / sample locations are shown on Figures 2 and 4 in Attachment 3a. A depiction of the approximate area of soil impacts exceeding the SHS in unsaturated and periodically saturated soils is shown on Figure 4 in Attachment 3a.

The current monitoring well network consists of on-property wells MW-1 through MW-5, and off-property wells MW-6 through MW-8 located on side- and downgradient properties. Static groundwater levels within the wells have ranged from ~6 to 10 feet below top of casing.

The highest concentrations identified for contaminants of concern (COC) in groundwater were found in on-property wells MW-1 and MW-3 located in the immediate vicinity and downgradient of the former dispenser island (presumed source area). Benzene, ethylbenzene, total xylenes, MTBE, naphthalene, 1,2,4-TMB, and 1,3,5-TMB all exceeded the SHS in these wells. One other well, MW-6 located off-property and side-gradient of the former dispenser island, contains only levels of MTBE exceeding the SHS. Groundwater impacts do not appear to extend off-property much beyond MW-6 as the groundwater COC concentrations in the other off-property

wells MW-7 (side- and downgradient depending on groundwater flow direction) and MW-8 (side-gradient) are all “non-detect” for target analytes.

Soil vapor samples were collected from the two sampling points SVP-1 and SVP-2 in February and March 2014. Concentrations of the COCs did not exceed any of the applicable soil vapor Medium-Specific Concentrations (MSCs).

No monitoring wells appear to be installed downgradient from the most impacted on-property wells MW-1 and MW-3 given the current groundwater flow direction to the south/southeast. Attempts were made by both Juniata and PADEP to secure access to properties to the south directly across Main Street; however, these attempts were unsuccessful.

### **Solicitor’s Selected Closure Standards & Proposed Remedial Approach**

Solicitor’s chosen closure standard for the Site is the Residential SHS for both soil and groundwater. In May 2015, Solicitor’s consultant provided PADEP with a combined Updated SCR and RAP prescribing source soil removal via excavation along with a one-time application of oxygen releasing compounds (ORC) to the completed excavation, followed by monitored natural attenuation (MNA) to remediate both soils and groundwater impacts. PADEP subsequently approved the remedial goals and proposed approach (with a couple minor comments/modifications) via letter to the Solicitor dated July 8, 2015. A copy of PADEP’s letter is provided in Attachment 3I. PADEP’s comments have been incorporated into the SOW for this RFB.

The soil excavation concept focuses on removing unsaturated and periodically saturated soils in the area of the former dispenser island and extending to the south toward Main Street and to the east in the direction of MW-3. Details of the RAP remedial approach are provided in the May 2015 combined Updated SCR and RAP and are summarized in the following sections of this RFB package.

### **Other Information**

To the extent there is any discrepancy between the summary of site conditions provided above and the source documents, bidders shall rely on the source document information. Bidders should carefully consider what information, analyses, and interpretations contained in the background documents can be used in developing their scope of work for their bid in response to this RFB.

## Scope of Work (SOW)

This RFB seeks competitive bids from qualified contractors to perform the activities in the SOW specified herein. The PADEP case manager located at the Department's Northcentral Regional Office (NCRO) was given the opportunity to review the SOW provided in this RFB. PADEP comments on the SOW were incorporated into the RFB.

### Objective

The PADEP-approved RAP specifies implementation of a soil excavation remedy to address shallow and deeper on-site soil impacts coupled with MNA to address off-site residually impacted smear zone soil and on- and off-site impacted groundwater. The remedial standard to be achieved on- and off-property is the Residential SHS for soil and groundwater.

The PADEP, the Technical Contact, and the PAUSTIF have agreed that one of the following will likely be the most technically viable and cost effective remedial approach that meets the PADEP's requirements to bring this site to the stated cleanup goal:

- 1) Soil excavation coupled with a one-time application of ORC to the open, completed excavation plus MNA, as prescribed in the PADEP-approved RAP;
- 2) Air sparge coupled with soil vapor extraction (SVE) plus MNA; or
- 3) Carbon-based Injection in-situ sequestration / bioremediation (e.g. "Trap and Treat", "Plumestop", "COGAC", etc.) plus limited excavation of excessively impacted shallow soil beneath the former dispensers and MNA.

Bidders shall propose only one of these three specific remedial approaches in their bid response.

This solicitation requests a fixed-price to closure bid for achieving the SHS for both soil and groundwater through implementation of the bidder's selected remedial approach. Bids shall conform to the eleven (11) specific milestones defined in this RFB. Bidders may propose to achieve this goal by choosing one of the three above-listed remedial approaches. To be deemed responsive, each bid must respond in detail to each of the milestones, including describing the bidder's understanding of the conceptual site model and how that model relates to the bidder's proposed approach to executing the SOW. "Bid to Result" RFBs identify task goals and rely on the bidders to provide a high level of project-specific detail on how they will achieve the goal. Each bid must detail the approach and specific methods for achieving the milestone objectives. In reviewing the quality of bids submitted under Bid to Result solicitations, there is an increased emphasis placed on technical approach and reduced emphasis on cost (as compared to bids for "Defined Scope of Work" RFBs).

Selecting one of the three remedial approaches as discussed above shall be the basis for preparing a SOW and presenting a competitive fixed-price bid. The selected bidder shall perform pilot testing to confirm that the remedial technology proposed in their bid will be feasible to meet the milestone objectives and remedial goal for this site.

### **Constituents of Concern (COCs)**

The COCs for soil, groundwater, and vapors are the PADEP post-March 2008 short list for unleaded gasoline, which consist of benzene, toluene, ethylbenzene, xylenes (BTEX); MTBE, cumene, naphthalene, 1,2,4-TMB, and 1,3,5-TMB.

### **General SOW Requirements**

The bidder's approach to completing the SOW shall be in accordance with generally accepted industry standards/practices and all applicable federal, state, and local rules, regulations, guidance, and directives. The latter include, but are not limited to, meeting the applicable requirements of the following:

- The Storage Tank and Spill Prevention Act (Act 32 of 1989, as amended);
- Pennsylvania Code, Title 25, Chapter 245 - Administration of the Storage Tank Spill and Prevention Program;
- The Land Recycling and Environmental Remediation Standards Act of 1995 (Act 2), as amended);
- Pennsylvania Code, Chapter 250 - Administration of Land Recycling Program; and
- Pennsylvania's Underground Utility Line Protection Law, Act 287 of 1974, as amended by Act 121 of 2008.

During completion of the milestone objectives specified below and throughout implementation of the project, the selected consultant shall:<sup>6</sup>

- Conduct necessary, reasonable, and appropriate project planning and management activities until the project (i.e., Remediation Agreement) is completed. Such activities may include Solicitor communications/updates, meetings, record keeping, subcontracting, personnel and subcontractor management, quality assurance/quality control, scheduling, and other activities

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<sup>6</sup> As such, all bids shall include the costs of these activities and associated functions within the quote for applicable tasks/milestones.

(e.g., utility location). Project planning and management activities will also include preparing and implementing plans for health and safety, waste management, field sampling/analysis, and/or other plans that are necessary and appropriate to complete the SOW, and shall also include activities related to establishing any necessary access agreements. Project planning and management shall include identifying and taking appropriate safety precautions to not disturb Site utilities including, but not limited to, contacting Pennsylvania One Call as required prior to any ground-invasive work. As appropriate, project management costs shall be included in each bidder's pricing to complete the milestones specified below.

- Be responsible for coordinating, managing, and completing the proper management, characterization, handling, treatment, and/or disposal of all impacted soils, water, and derivative wastes generated during the implementation of this SOW. The investigation-derived wastes, including purge water, shall be disposed in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives. Waste characterization and disposal documentation (e.g., manifests) shall be maintained and provided to the Solicitor and the PAUSTIF upon request. It is the selected consultant's responsibility to conform with current PADEP Regional Office guidance requirements in the region where the Site is located.
- Be responsible for providing the Solicitor and facility operator with adequate advance notice prior to each visit to the property. The purpose of this notification is to coordinate with the Solicitor and facility operator to ensure that appropriate areas of the property are accessible. Return visits to the Site will not constitute a change in the selected consultant's SOW or result in additional compensation under the Remediation Agreement.

### **Site-Specific Guidelines**

As part of this RFB, the selected consultant will need to consider the following site-specific guidelines:

**Off-Property Access.** Selected consultant will be responsible for securing off-property access where needed to implement the remedial approach. Work required to negotiate and secure off-property access shall be included within the fixed price for Milestone C. A copy of the executed access agreements between the existing consultant and the property owner to the east and the local municipality are provided as Attachment 3I.

**Field Activities.** All on- and off-site work should be conducted during the normal business days and hours of 8:00 AM to 5:00 PM from Monday through Friday, unless work outside of these

normal business days and hours is authorized by the respective property owner. The selected consultant will be responsible for determining and adhering to other restrictions that may apply to the Site or surrounding properties.

**Responsibility.** The selected consultant will be the consultant of record for the site. It will be required to take ownership of the project and will be responsible for representing the interests of the Solicitor and ICF/PAUSTIF with respect to the project. This includes utilizing professional judgment to ensure reasonable, necessary and appropriate actions are recommended and undertaken to protect sensitive receptors and carry out adequate remedial actions in order to move the site toward closure.

**Field Instrumentation.** Each bidder should state in their bid response the appropriate field instrumentation (e.g., pumps, meters, photoionization detectors, etc.) to be used during the completion of the SOW. Specifically, the product associated with the regulated release at this site is unleaded gasoline. As such, any field-screening instrumentation used at the site should be able to detect the presence of hydrocarbons associated with that type of product.

**Safety Measures.** Each bidder should determine the safety measures necessary to appropriately complete the milestones. Specifically, if a consultant feels that it is appropriate and necessary to complete utility clearance using an air knife, the cost should be included in their fixed-price cost. If a bidder includes costs to conduct specific safety measures or activities, the bidder should specify it in the bid response and discuss why it is appropriate and necessary and indicate which methods will be utilized and to what extent. As discussed in the RFB, cost is not the only factor when evaluating bid responses and other factors are taken into consideration during the bid evaluation process, including appropriate safety measures.

**Waste Disposal.** The investigation derived waste (including, but not limited to, soil/rock cuttings, used carbon, well development/purging liquids, and groundwater during excavation activities) shall be disposed per the instructions included in the "General SOW Requirements" section of the RFB. Bidders will be responsible for arranging any off-site waste disposal (if required) and including costs in their bid response to cover the disposal of all potential waste related to the milestones included in the SOW. Containerized soil and groundwater may be temporarily stored on-site, but should be removed from the site in a timely manner. Bidders will be responsible for including costs in their bid response to cover the disposal of all potential waste related to the milestones included in the SOW. Each bidder should estimate the volume of waste using its professional opinion, experience and the data provided. **ICF and PAUSTIF will not entertain any assumptions from the selected bidder in the Remediation Agreement with regards to a volume of waste. Invoices submitted by the selected bidder to cover additional waste disposal costs as part of activities included under the fixed-price Remediation Agreement for this site will not be paid.**

## Site-Specific Milestones

**Milestone A – Supplemental Site Characterization Activities.** This milestone provides each bidder the opportunity to identify the additional site characterization work that the bidder will complete before finalizing and implementing the bidder's selected remedial approach. Conducting some supplemental investigative activities under this milestone is mandatory, and PAUSTIF will reimburse up to \$10,000 for the supplemental investigative activities under this milestone. While the reasonableness of each bidder's Milestone A costs will be evaluated, the total bid cost of Milestone A activities will not affect the cost scoring component of the bid reviews. However, the proposed activities will affect the technical scoring component of the bid reviews.

Bidders are to describe what supplemental site investigative activities will be completed, the rationale for the work, and how the derived data will be used. For purposes of bidding, and to ensure consistent cost scoring of bids, each bidder will enter exactly \$10,000 as the bid price for Milestone A in the Bid Cost Spreadsheet. PAUSTIF will only reimburse up to \$10,000 of reasonable and necessary costs for those tasks actually performed. The selected bidder must provide time and material documentation in addition to supporting documentation required (in Exhibit B of the executed Remediation Agreement) to support the requested reimbursement and completion of this milestone.

Bidders may use this opportunity to: 1) confirm any elements of the site characterization completed by a previous consultant; 2) address any perceived data gaps in the existing site characterization work; 3) assist in the evaluation and determination of remedial technologies and design which are characterization-type activities (e.g. analysis for C<sub>4</sub>-C<sub>10</sub>); and 4) assist with refining the cleanup timeframe estimate and/or other reasons related to validating the bidder's remedial approach and design (e.g. additional sampling to better determine mass in place).

Milestone A activities shall be conducted as soon as possible following execution of the Fixed-Price Agreement.

Each bidder shall describe in detail its scope of work for additional site characterization activities along with corresponding technical justification to support the need for each additional activity. When considering what additional supplemental site investigative activities may or may not be necessary, bidders are strongly encouraged to review the January 2014 SCR, May 2015 Updated SCR / RAP, and the other documents provided in Attachment 3, rather than relying solely on the summary information presented in this RFB.

Potential considerations regarding the need for Milestone A activities include – determination of site-specific remedial design data; confirmation that the proposed remedial approach is technically feasible; confirmation that the proposed remedial approach is cost-effective; and

confirmation that the proposed remedial approach will provide a timely closure of the site under PADEP Act 2. Potential activities for bidders to consider may include, but not be limited to, the following:

- Advance additional soil borings to assist in defining the extent of soil contamination and extent of the soil excavation.
- Assess the effectiveness of a specific remedial technology or approach.
- Finalize remedial design calculations, technology information, equipment specifications, and materials specifications, as appropriate.

Any and all Milestone A activities that are proposed with your firm's bid shall be accompanied by the following:

- The purpose and need for each Milestone A activity and an appropriate breakdown;
- A detailed scope description of each activity including the use and incorporation of any pre-existing site data;
- The timing and schedule of each activity relative to the overall project schedule;
- A description of the anticipated results of each activity and how such results may impact your proposed conceptual remedial action plan; and
- For activities involving the evaluation of a remedial technology, such as a feasibility study, bids shall describe in detail the likelihood that the resulting data will dictate a change in the conceptual remedial action plan proposed in your bid.

Following completion of the additional site characterization activities, and the bidder will be implementing the PADEP-approved remedial approach without significant changes, these Milestone A activities shall be documented in a quarterly RAPR (Milestone D).<sup>7 8</sup>

**Milestone B – Pilot Testing Activities.** Should a bidder propose to implement either of the alternative remedial approaches to the one identified in the PADEP-approved RAP, then pilot testing activities are mandatory. This milestone provides bidders the opportunity to identify what pilot testing activities will be completed in advance of finalizing the remedial approach design and moving ahead with its implementation. Bidders shall provide a fixed-price costs and are to describe what pilot testing activities will be completed, the rationale for the work, and how the derived data will be used.

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<sup>7</sup> In order to receive reimbursement under this task, thorough documentation of any additional site characterization must be provided to PAUSTIF.

<sup>8</sup> The selected consultant will only be reimbursed for milestones that have been completed.

Milestone B activities shall be conducted as soon as possible following execution of the Fixed-Price Agreement.

Each bidder shall describe in detail its scope of work for pilot testing along with corresponding technical justification to support the need for each additional activity. Potential considerations regarding the need for pilot testing activities include – determination of site-specific remedial design data; confirmation that the proposed technology is technically feasible; confirmation that the proposed technology is cost-effective; and confirmation that the proposed technology will provide a timely closure of the site under PADEP Act 2.

Any and all Milestone B activities that are proposed with your firm's bid shall be accompanied by the following:

- The purpose and need for each Milestone B activity and an appropriate breakdown;
- A detailed scope description of each activity including equipment to be used, the use and incorporation of any pre-existing site data;
- The timing and schedule of each activity relative to the overall project schedule;
- A description of the anticipated results of each activity and how such results may impact your proposed conceptual remedial action plan; and
- For activities involving the evaluation of a remedial technology, bids shall describe in detail the likelihood that the resulting data will dictate a change in the conceptual remedial action plan proposed in your bid.

If a bidder proposes to implement one of the two alternative remedial approaches for the site, then a Revised RAP (Milestone C) shall be prepared to document the pilot testing activities/findings, along with the details of the revised remedial approach including the conceptual design.

*Pilot Study "Off-Ramp" / Changed Condition*

The selected consultant and the Solicitor are protected from being obligated to move forward with a remedial action under Milestone E if the pilot testing data is inconsistent with the Milestone E proposed remedial approach based on critical criteria outside the bidder's defined ranges from the pilot test data from Milestone B. Exhibit A of the Remediation Agreement (Attachment 1) will contain a provision that if the selected consultant's proposed remedial approach is not reasonable based solely on pilot test results indicating that it cannot be implemented as proposed in the conceptual design based on critical criteria outside the bidders

defined ranges from the pilot test data from Milestone B, then one of the following conditions will apply:

- 1) With advance Solicitor and PAUSTIF approval, the selected bidder may elect to modify the remediation plan and continue with the project at no additional cost; that is, for the same total fixed price found in the bid response or a lesser fixed-cost. If selected consultant's modified plan is approved by Solicitor and by PAUSTIF for funding, the executed Remediation Agreement may be amended, if necessary, to agree with the modified remediation plan and costs; however, the total fixed price of the Remediation Agreement shall not be increased.
- 2) Or if the Solicitor or PAUSTIF choose not to approve the selected consultant's revised remediation plan adjusting to the Milestone B pilot testing data, the Remediation Agreement for the project will terminate.
- 3) Or if the selected consultant adequately demonstrates the site conditions revealed by the results of Milestone B pilot testing activities could not have reasonably been expected prior to conducting the Milestone B activities, the selected consultant may elect to not proceed and to terminate the Remediation Agreement for the project.

If either party elects to cancel the Remediation Agreement, the PAUSTIF will have complete discretion with regard to the use of the information obtained during Milestone B activities and/or in the Pilot Test Report. The PAUSTIF may use the data as the basis for rebidding the project; however, it will be specified that any use that a third party makes of the supplemental site characterization data (Milestone A) and/or Milestone B activities will be at the sole risk of the third party. End of "Pilot Test Off-Ramp" language.

For consistency, bidders shall budget a maximum of 10% of the total bid cost for the Milestone B activities, with a maximum of \$50,000. For example, if the total proposed cost for Milestones A through I (excluding B) is determined to be \$300,000, the fixed-price cost of Milestone B specified in the bid cost spreadsheet shall be up to, but not exceed \$30,000. However, if the total proposed cost for Milestones A through I (excluding B) is determined to be \$550,000, the fixed-price cost of Milestone B specified on the bid cost spreadsheet shall be up to, but not exceed \$50,000.

Bidders shall, therefore, specify within their bids the critical criteria (if any) that will be used by Solicitor, PAUSTIF and the selected bidder to evaluate the significance of pilot testing data obtained through Milestone B activities. These critical criteria shall be used to assess if the pilot testing data change the feasibility of the Milestone E proposed remedial approach. As such, and as applicable, bids shall list critical criterion that will define the range of acceptable results (i.e., feasibility study or pilot testing results) relevant to the proposed Milestone E remedial approach. These criteria must be measurements or calculations that could be independently measured or verified by others during testing. Based on these criteria, Exhibit A of the

Remediation Agreement (Attachment 1) will contain a provision allowing cancellation of the Agreement should pilot test results (i.e., the pilot testing data obtained during the implementation of Milestone B) do not meet certain bidder-defined criteria. Each bidder, therefore, shall explicitly specify any and all critical criteria for key design elements on which the Milestone E proposed remedy depends (i.e., the critical criteria and quantified limits of values that will make the proposed conceptual remedial action plan technically feasible, cost-effective, and timely).

For example, bids shall include language such as:

“For our Milestone E proposed remedial action approach to be successful and for the technology(ies) used thereby to operate as planned and meet our proposed cleanup schedule, the Milestone B testing must show:

1. Air pressure and sustained air flow from the pilot test injection well(s) shall be greater than X psi and Y cfm, and air injection influence measured within a minimum of Y feet; and
2. Vacuum influence measured within a minimum of Y feet of the pilot extraction well.”

End of example bid language.

Actual bid language, if any, and the associated critical criteria will vary by bidder. Pilot study off-ramp assumptions must be specific to evaluating the feasibility of the technology relative to the consultant’s bid approach. Identifying assumptions regarding the bidder’s remedial system design is not acceptable. Some examples of inappropriate assumptions for this “Bid to Result” include: length of remedial system trenching, number of injection points, type of remediation equipment, duration of remediation, etc.

The critical criteria identified in each bid and their associated acceptable range of pilot testing results will be evaluated by the bid evaluation committee as part of the technical review. Unrealistic criteria or criteria that are unreasonably narrow will reduce the favorability of the bid as viewed by the bid review committee.

**Milestone C – Documentation of Findings: Augmented RAPR; RAP Addendum; or Revised RAP.** Upon completing Milestones A and B described above, there are three possible documentation scenarios for Milestone C. The scenarios, triggers for each, and minimum required components are summarized as follows:

- (1) **Augmented RAPR.** If a bidder proposes to implement the PADEP-approved RAP without significant changes, then the supplemental site characterization activities conducted under Milestone A shall be documented and reported to PADEP in an

augmented RAPR prepared under Milestone D. Bidders shall provide a fixed price in Milestone C for augmenting a RAPR prepared in Milestone D.; or

- (2) **RAP Addendum.** If a bidder proposes to implement the PADEP-approved RAP with some significant modifications, then the supplemental site characterization activities conducted under Milestone A and the remedial approach modifications shall be documented and reported to PADEP in a RAP Addendum to secure PADEP approval. The RAP Addendum shall be first submitted in draft form to the Solicitor and PAUSTIF for review and comment before being finalized and submitted to PADEP. Each bidder's project schedule shall provide two (2) weeks for Solicitor and PAUSTIF review of the draft document. The final report shall address comments received from the Solicitor and PAUSTIF on the draft report before it is submitted to the PADEP for its review.; or
- (3) **Revised RAP.** If a bidder proposes to implement one of the two alternative remedial approaches for the site, then a Revised RAP shall be prepared to document the supplemental site characterization activities/findings (and any pilot testing activities/findings), along with the details of the revised remedial approach. This Revised RAP shall contain all necessary information required under 25 PA Code §245.311, and be of sufficient quality and content to reasonably expect PADEP approval. The Revised RAP shall be first submitted in draft form to the Solicitor and PAUSTIF for review and comment before being finalized and submitted to PADEP. Each bidder's project schedule shall provide two (2) weeks for Solicitor and PAUSTIF review of the draft document. The final report shall address comments received from the Solicitor and PAUSTIF on the draft report before it is submitted to the PADEP for its review.

The applicable document / report shall document, describe, and evaluate all findings provided from Milestones A and B, if applicable, above, updating the conceptual site model (CSM) for the Site and its vicinity based on evaluating the results from the additional site characterization and pilot testing tasks outlined above, and detailing any proposed modifications to the existing PADEP-approved remedial approach. The applicable document / report shall incorporate information and relevant findings from the previous site documentation (as necessary), and contain all necessary and appropriate figures<sup>9</sup>, tabulated data, and appendices to comply with the regulatory requirements for and to obtain PADEP approval of these documents.

The applicable document / report shall be signed and sealed by a Professional Geologist in the Commonwealth of Pennsylvania, and may also require the signature and seal of a Professional Engineer registered in the Commonwealth of Pennsylvania (bidders shall refer to state licensing laws to determine if the Professional Engineer seal is required based on the work performed for and documented in the combined report). The fixed-price cost shall also include addressing any PADEP comments on the RAP Addendum or Revised RAP reports.

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<sup>9</sup> All figures shall depict the location of the closed-in-place kerosene UST as per PADEP's 7/8/15 letter.

**Milestone D – Continue Quarterly Groundwater Monitoring, Sampling & Reporting.** For this milestone, bidders shall provide the Solicitor and PAUSTIF with firm quarterly fixed-price unit costs that would include quarterly monitoring and sampling of the on- and off-property groundwater monitoring wells and reporting of the results. These quarterly events are anticipated to occur before, during and following implementation of the proposed remedial approach (Milestone E). For the purposes of this RFB, it is assumed that nine (9) quarters of groundwater monitoring, sampling and reporting will be required over the period leading up to and during remediation. However, if a bidder believes that the number of quarterly events will need to extend beyond nine quarters, each bid must specify the additional number of quarterly events needed along with supporting rationale. Any additional quarterly events, beyond the nine quarters specified in this RFB, shall be defined on the Bid Cost Spreadsheet and shall be incorporated in the Remediation Agreement as Cost Adder Milestone J.<sup>10</sup> Bidders shall assume that one quarter of monitoring will occur prior to remediation and 8 quarters during remediation (including MNA). Groundwater monitoring will continue until the contaminant concentrations in all of the point of compliance (POC) wells (as defined in Milestone F) have remained below the PADEP SHS for at least two consecutive quarterly monitoring and sampling events.<sup>11</sup> Under these conditions, it is deemed reasonable to initiate the groundwater attainment demonstration (Milestone F). Each bid must explicitly state the bidder’s understanding of the project goal for when the groundwater attainment demonstration would begin.

The quarterly groundwater monitoring and sampling events shall include all eight existing on- and off-property monitoring wells (MW-1 through MW-8)<sup>12</sup>. During each event, the depth to groundwater and any potential separate-phase hydrocarbons (SPH) shall be gauged in all available monitoring wells prior to purging any of the wells for sampling. Groundwater level measurements obtained from the monitoring wells shall be converted to groundwater elevations for assessing groundwater flow direction and hydraulic gradient. Any well exhibiting more than a sheen of SPH shall not be purged and sampled.<sup>13</sup> Bidders shall manage purged groundwater and other derived IDW generated by the well purging and sampling activities in accordance with the PADEP NCRO guidance. The conduct and results of each event shall be documented in quarterly RAPRs.

Groundwater samples shall be analyzed for the **post**-March 2008 PADEP short-list of unleaded gasoline parameters (BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, and 1,3,5-TMB) by a PADEP-accredited laboratory using appropriate analytical methods and detection levels. Appropriate QA/QC samples shall also be collected during each event and analyzed for the

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<sup>10</sup> The Remediation Agreement includes a Site Specific Assumption that quarterly site monitoring, sampling & reporting events will not exceed the 9 quarters under Milestone D plus additional quarters under Cost Adder Milestone J.

<sup>11</sup> The selected consultant will only be reimbursed for the quarterly events that have been completed.

<sup>12</sup> The fixed price cost shall also include any additional monitoring well(s) that the bidder proposes to install under Milestones A and B (if any).

<sup>13</sup> No SPH has been observed in any of the monitoring wells.

same parameters.<sup>14</sup> In addition, each event shall include field measurements for these water quality parameters: pH, temperature, specific conductance, dissolved oxygen (measured in-situ), and oxidation/reduction potential.

The RAPRs describing the sampling methods and results will be provided to the PADEP on a quarterly basis and within 30 days of the receipt of analytical results for each quarter. At a minimum, each RAPR shall contain the following:

- A summary of site operations and remedial progress made during the reporting period;
- Narrative description of the sampling procedures and results;
- Tabulated data collected from the monitored wells documenting the depth to groundwater and thickness of any free product encountered;
- Groundwater elevation contour maps depicting groundwater flow direction;
- Tabulated historical quantitative groundwater analytical results including results from the current quarter;
- Current quarter laboratory analytical report(s);
- One site-wide iso-concentration contour map for each compound detected in any one well above the SHS during the quarter;<sup>15</sup>
- For each well exceeding the SHS, a graphical depiction of historical key contaminant concentrations and groundwater elevations to provide an assessment of correlations between fluctuating water levels / precipitation events and contaminant concentrations;
- For each well exceeding the SHS, a graphical depiction of recent key contaminant concentration trends;
- Discussion of the data to offer an updated assessment whether these data are consistent with a stable, shrinking, or expanding plume;
- Treatment and disposal documentation for waste generated during the reporting period; and
- Demonstration of compliance with the required Federal, State, and local permits and approvals.

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<sup>14</sup> Each bidder's approach to implementing Milestone D shall clearly identify the number of sampling events, number of wells / samples per event, well purging and sampling method(s), QA/QC measures, analytes, purge water management methods, and other key assumptions affecting the bid price.

<sup>15</sup> All figures included in each RAPR (e.g., site plan, groundwater elevation maps, dissolved plume maps, etc.) shall be available in electronic format from the Solicitor upon request.

All figures included in the RAPRs shall depict the location of the closed-in-place kerosene UST as per PADEP's 7/8/15 letter.

PAUSTIF will only reimburse for the necessary quarterly groundwater sampling / reporting events actually completed under this milestone. If water quality in POC wells have met the criteria (above) for commencing attainment demonstration before 9 quarters of monitoring have been completed, then Milestone F shall be initiated ahead of schedule (e.g., this milestone shall be considered completed with the initiation of Milestone F). If, in order to achieve the cleanup goals, it is necessary to extend the quarterly events beyond the RFB-specified nine quarters, each additional quarter, up to the bidder's specified total number of additional quarters, will be addressed via Cost Adder Milestone J. Consultant shall seek and obtain written approval from Solicitor and PAUSTIF to continue quarterly events under Milestone J.<sup>16</sup>

Each quarterly RAPR shall be signed and sealed by a Professional Geologist and / or Professional Engineer registered in the Commonwealth of Pennsylvania (bidders shall refer to state licensing laws to determine which seals are required based on the work performed for and documented in the RAPR).

**Milestone E – RAP Implementation.** Under this task, bidders shall provide a bid inclusive of all the manpower, machinery, materials, and other costs needed to fully implement the remedial solution for the site whether it be the solution described in the existing PADEP-approved RAP, the bidder's RAP Addendum, once approved by PADEP or the bidder's Revised RAP (RRAP), once approved by PADEP.

#### Existing PADEP-Approved or modified RAP – Excavation & MNA

Bidders choosing to implement the RAP (or RAP with minor modifications) shall describe details on how they propose completing the limited on-site excavation and subsequent MNA. Each bid response must describe the bidders approach in detail and provide a fixed-price inclusive of excavation planning / preparation work (e.g., buried utility location / mark-out, surveying excavation locations, etc.) and excavation and backfilling for the area / volume of the Site as defined on Figure 5 in Attachment 3a. Each bid must also include a drawing depicting the area to be excavated. The unsaturated / "smear" zone soils in this area contain residual petroleum contaminant mass (e.g., BTEX, naphthalene, 1,2,4-TMB, and 1,3,5-TMB) exceeding the SHS. To enable demonstration of attainment of the SHS in soils, the impacted soil with contaminant concentrations exceeding SHS shall be removed. From a depth of 0 to 10 feet, bidders are to assume that the soil will be field screened and segregated to separate the "not suspected to be contaminated" and "obviously contaminated" soil. To be deemed responsive to this task, bids

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<sup>16</sup> The Remediation Agreement includes a Site Specific Assumption that remediation will be complete and groundwater attainment activities will be initiated within the base 9 quarters (Milestones D1 through D9) and total number of additional quarters specified under Cost Adder Milestone J.

must discuss: (a) the photoionization detector (PID)<sup>17</sup> screening value selected somewhere around 50 parts per million (ppm)<sup>18</sup> that will be applied to segregate the “obviously contaminated” and “not suspected to be contaminated” soil removed from the excavation; and (b) the field screening approach and frequency. All “obviously contaminated” soil shall be removed from the site for off-site disposal and “clean” fill shall be imported to replace the exported soil. Contaminated soil transportation and off-site disposal and clean fill import costs shall not be included in the fixed price bid for this task as these will be based on unit costs. Fixed-price and unit cost bids for this work task shall be based upon RFB specifications.

Figure 5 (Attachment 3a) depicts the RAP specified lateral limits for the soil excavation. The bidder’s fixed cost shall include the costs to perform all work necessary to safely excavate, screen, segregate / manage soil, backfill, and surface restore the area shown / specified on Figure 5 including contacting / obtaining the required permits that may be needed before initiating this task. The area shall be excavated to remove soils down to a depth of 10 feet below grade (depth of permanent groundwater saturation). Groundwater level data (~6.5 to 10 feet) from the existing monitoring wells in the area of the excavation, and the soil types (i.e. mixture of clayey sands and silts, and sand, silt and gravel) suggests that there may be groundwater accumulation in the excavation, which may require the temporary extraction, removal, sampling, loading, transportation and disposal of impacted groundwater. Since the volume of impacted groundwater that would require management for disposal cannot be precisely determined at this time, compensation to the successful bidder will be based on a fixed, per gallon unit cost for the management, sampling, loading, transportation and disposal (or on-site treatment & regulatory permitted discharge) of impacted groundwater removed from the soil excavation. The successful bidder will only be reimbursed for the actual gallons that needed to be removed from the excavation and properly disposed.

After the excavation is completed, and prior to backfilling, biased soil attainment sampling in accordance with Regulation 250.707(b)(1)(iii) shall be performed on the side walls of the excavation per the PADEP-approved RAP. Biased sampling has been prescribed due to the limited precision of soil characterization, particularly, in the direction of Main Street and its right of way. If laboratory analytical results from testing all biased samples collected in accordance with Regulation 250.707(b)(1)(iii) find soil contaminants all below SHS, then the successful bidder shall assume that site soil attainment has been demonstrated. Otherwise, future post-MNA soil attainment will need to be demonstrated under Milestone G. For the purposes of this bid, bidders shall assume that attainment of the soil standards will not be successful under Milestone E and, therefore, implementing Milestone G will be required.

Fixed-price bids shall describe the approach, including the number of soil samples, for side wall attainment soil sampling from the completed excavation consistent with PADEP Regulation

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<sup>17</sup> PID with 10.6 eV bulb calibrated to 100 ppm isobutylene.

<sup>18</sup> The May 2015 Updated SCR and RAP (Attachment 3c) specifies a screening value of 50 ppm.

250.707(b)(1)(iii). Attainment soil samples shall be analyzed for the post-March 2008 PADEP short-list of unleaded gasoline parameters (BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, and 1,3,5-TMB) by a PADEP-accredited laboratory using appropriate analytical methods and detection levels. Appropriate quality assurance/quality control (QA/QC) samples shall also be obtained for laboratory analysis.<sup>19, 20</sup>

In addition, prior to backfilling, the fixed-price for this task shall include, and each bid shall detail the approach to the application of 2,000 pounds of ORC Advanced<sup>®</sup> (or equivalent compound) by mixing with the lower four feet of backfill at a one percent by weight ratio to aid in the bioremediation of any residual impacts per the RAP. The oxygen-enhancing agent shall be a minimum of 17% oxygen by weight.

Fixed-price bids shall also include backfilling and mechanically compacting in lifts the excavated area. The successful bidder shall backfill to within 5 inches of grade using a combination of reused "clean" site soil and imported clean fill. Excavated material stockpiled on site for re-use shall be sampled prior to backfilling, and the fixed-price bid shall include costs for the sampling and laboratory work in accordance with PADEP guidance documents. Backfill material and placement/compaction methods shall result in a stabilized soil condition capable of supporting normal traffic and use loads. The backfill materials shall be free of vegetation, lumps, trash, lumber, and other unsuitable materials. In general, backfill shall be mechanically compacted by means of tamping rollers, sheep foot rollers, pneumatic tire rollers, vibrating rollers, or other mechanical tampers which are appropriate for the material being compacted. Bids shall also include surface completion / restoration to restore the area to pre-excavation conditions.

Historical information does not appear to indicate any below grade utilities in the area of the excavation. However, bidders shall investigate and locate any below grade utilities that may be encountered before the digging occurs. The fixed-price cost for this task shall include costs for the management and / or replacement of any utilities that may be identified and encountered in the excavation. Costs should also include any temporary repairs made prior to permanent replacements.

Fixed-price bids for the excavation work shall include any waste profiling (including any sampling & laboratory work) and securing waste facility acceptance prior to beginning the soil excavation.

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<sup>19</sup> Each bidder's approach to the collection of the soil samples shall clearly identify the number of samples, QA/QC measures, analytes, and other key assumptions affecting the bid price.

<sup>20</sup> The May 2015 Updated SCR and RAP indicates that if groundwater is encountered within the excavation, that 2 water samples would be collected. PADEP guidance does not require samples to be collected of water within an excavation being done as a remedial action; therefore, no water samples will be collected from the completed excavation.

Two existing groundwater monitoring wells, MW-1 and MW-3, are located within the proposed excavation footprint. These wells will need to be decommissioned in accordance with PADEP guidance as part of this task prior to initiating the excavation. Following completion of the excavation and backfilling, both of these wells shall be replaced. Construction details for the replacement wells shall be identical to existing wells MW-1 and MW-3. Each bid response must explain the bidder's approach to abandonment of the existing two wells and installation details for the two replacement wells. In addition, the fixed price shall also include well development, surveying the new wells, and bids must indicate on a drawing the proposed locations for the replacement wells.

Although the RAP calls for laterally expanding the excavation based on elevated PID readings, expansion is not currently anticipated, especially due to physical limitations. However, should it become necessary and appropriate to expand the excavation and should it be expanded to the extent it impacts other wells (e.g., MW-2 or MW-6), these wells will also need to be abandoned in accordance with PADEP guidance and replaced. Reimbursement of costs for any unexpected additional well abandonment and replacement due to an expanded excavation would be handled on a unit cost basis under Cost Adder Milestone K.

The details of the soil removal activities shall be documented in a concurrent quarterly RAPR (Milestone D) and the RACR, and at a minimum shall include the following: scaled drawings depicting the lateral and vertical dimensions of the completed excavation superimposed on the site plan; all field observations and PID readings; the quantity of soil excavated, disposed off-site, used as backfill, and imported for backfill; waste profiling documentation; soil waste disposal manifests and disposal facility; source and amount of imported fill; impacted groundwater management, sampling / analysis, and disposal (if needed); application of ORC; dated photographs taken before breaking ground, throughout the excavation, and after restoration; and documentation (boring logs / well construction diagrams and survey information) for any replacement monitoring wells. Additionally, the locations and results of the biased soil attainment sampling shall be well detailed and documented in text, photographs and figures.

In addition to providing a fixed-price bid for excavating, backfilling, ORC Advanced<sup>®</sup> application, restoring the defined excavation area, and well abandonment and replacement activities, bidders shall also provide excavation-related unit costs (included on the Attachment 2, Bid Cost Spreadsheet) to accommodate changes that may be required. These unit costs are:

- UC1 Management, loading, transportation and proper off-site disposal of excessively contaminated soils (cost per ton);
- UC2 Management, sampling / analysis, loading, transportation and disposal of impacted groundwater removed from the soil excavation (cost per gallon);

- UC3 Purchase, transportation and on-site management of clean imported fill to replace exported excessively contaminated soil (cost per ton);
- UC4 Surface restoration of areas beyond identified target excavation limits (cost per square foot);
- UC5 Additional excavation beyond identified excavation limits, excluding excessively contaminated soil transportation / disposal costs since these are captured under UC1 (cost per in-place cu yard);<sup>21</sup> and
- UC6 Additional backfilling and compaction beyond identified limits, excluding clean imported fill costs since these are captured under UC3 (cost per in-place cu yard).

When evaluating the bid responses, the bidders unit costs for UC1, UC2, and UC3 will be added to the bidders total fixed price provided in Attachment 2 using the following assumed volumes – 710 tons for T&D of impacted soils (75% excavated from the total area shown on Figure 5, Attachment 3a); 7,500 gallons of impacted groundwater removed for disposal; and 710 tons of imported clean fill.

Alternative: Revised RAP – Air Sparge & SVE with MNA

If a bidder proposes to implement the air sparging / SVE with MNA alternative, then the bidder must fully describe in detail and provide a firm fixed price for implementing the proposed alternative approach. For example, the bidder's description and firm fixed-price shall include capital expenditures (purchase new equipment and installation)<sup>22</sup>, ongoing costs (e.g., operation & maintenance [O&M], monitoring, reporting). Quarterly O&M, monitoring, & reporting shall be included as quarterly fixed-price unit costs on the Bid Cost Spreadsheet (Attachment 2).<sup>23</sup> Because the number of quarters needed to operate and maintain the air sparge & SVE system cannot be reliably known at this time, bidders are to assume there will be 8 quarters of O&M. However, each bidder is required to specify the total number of O&M quarters the bidder believes will be required before the system may be idled and groundwater attainment demonstration can begin along with rationale. The successful bidder will only be reimbursed for the actual number of O&M quarters actually needed based upon the bidder's fixed unit price for quarterly O&M. Bids proposing an alternative to the RAP, but which do not provide adequate detail describing the alternative and cost breakdown on the bid form, will be deemed unresponsive.

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<sup>21</sup> The successful bidder cannot count on reimbursement of excavation beyond the limits depicted in Figure 5 (Attachment 3a) without having obtained prior written approval of the supplemental work by Solicitor and PAUSTIF or their agents before completing the supplemental excavation work.

<sup>22</sup> During the bidder's specified timeframe of site operations, maintenance, and monitoring subsequent to remediation system startup, the selected consultant, at its own expense, including **all** associated labor, shall be responsible for repairing or replacing equipment purchased for the RAP implementation that becomes damaged, destroyed, or defective.

<sup>23</sup> These O&M costs are in addition to, and separate from Milestone D.

Other basic bidder assumptions which must be reflected in bids for this alternative:

- No existing monitoring well shall be used for remediation purposes.
- The remediation system must operate 24/7 and maintain an average up-time of at least 80%.
- The remediation wells and components will all be installed within the boundaries of the Solicitor's property.
- GAC will be used to treat system off-gas.
- The system will be comprised of 8 sparge wells and 8 SVE wells.
- All wells will operate simultaneously.

Alternative: Revised RAP - Carbon-based Injection in-situ sequestration / bioremediation with limited shallow soil excavation and MNA

If a bidder proposes to implement a carbon-based injection (CBI) sequestration / bioremediation alternative remedial approach to the excavation solution proposed in the existing RAP, the bidder must fully describe in detail and provide a firm fixed-price for implementing the proposed alternative approach. For example, the bidder must detail and provide a firm fixed-price for all capital expenditures (e.g., equipment, reagents and injection) along with any ongoing quarterly costs (e.g., operation & maintenance [O&M], monitoring, reporting). Quarterly O&M, monitoring, & reporting shall be included as quarterly fixed-price unit costs on the Bid Cost Spreadsheet (Attachment 2).<sup>24</sup> Because the number of quarters needed to for the CBI approach to achieve the goal cannot be reliably known at this time, bidders are to assume there will be 8 quarters of post-injection monitoring. However, each bidder is required to specify the total number of post-injection monitoring quarters the bidder believes will be required before groundwater attainment demonstration can begin along with rationale. The successful bidder will only be reimbursed for the actual number of post-injection quarters actually needed based upon the bidder's fixed unit price for any quarterly post-injection O&M requirements. Bids proposing an alternative to the RAP, but which do not provide adequate detail describing the alternative and cost breakdown on the bid form, will be deemed unresponsive.

Other basic bidder assumptions which must be reflected in bids for this alternative:

- No existing monitoring well shall be used for remediation purposes.
- The injections are to occur within the boundaries of the Solicitor's property.

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<sup>24</sup> These O&M costs are in addition to, and separate from Milestone D.

- Injections will occur within the smear zone at 40 locations.
- Three injection depths at each location.
- 60 pounds of bacteria nutrient impregnated GAC will be injected into the subsurface at each location (2,400 pounds of GAC in total) with oxygen amendments, as needed.
- Approximately 13 tons of shallow, unsaturated soil will be excavated and disposed to address the UST closure exceedances beneath the former dispenser area (assume a 10 by 4 foot excavation to a depth of 6 feet).

**Milestone F – Groundwater Attainment Demonstration.** Under this task, bidders shall provide a firm fixed-price to complete up to eight quarters of groundwater monitoring and sampling events.<sup>25</sup> According to PADEP regulations, the POC is defined as the property boundary that existed at the time of the release and, therefore, wells MW-1 through MW-5 are considered on-property POC wells. Additionally, wells MW-6 through MW-8 are considered off-property de facto POC wells (where SHS attainment must also be demonstrated). Therefore, each groundwater monitoring and sampling event shall include all on- and off-property wells MW-1 through MW-8. The conduct and results of each event shall be documented in quarterly RAPRs.

During each quarterly groundwater monitoring and sampling event, the depth to groundwater shall be gauged in all existing available monitoring wells and prior to purging any of the wells for sampling. Groundwater level measurements obtained from the monitoring wells shall be converted to groundwater elevations for assessing groundwater flow direction and hydraulic gradient.

Each of the monitoring wells designated for sample collection shall be purged and sampled in accordance with the PADEP Groundwater Monitoring Guidance Manual and standard industry practices. Any well exhibiting a measurable thickness of SPH shall not be purged and sampled. Bidders shall manage purged groundwater and other derived IDW generated by the well purging and sampling activities in accordance with the PADEP NCRO guidance.

Groundwater samples shall be analyzed for the **post**-March 2008 PADEP short-list of unleaded gasoline parameters (BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, and 1,3,5-TMB) by a PADEP-accredited laboratory using appropriate analytical methods and detection levels. Appropriate QA/QC samples shall also be collected during each event and analyzed for the same parameters.<sup>26</sup> In addition, each event shall include field measurements for the following

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<sup>25</sup> Bidders shall include language in their bid that if groundwater data in the POC wells has been either non-detect or below SHS for four consecutive quarters, the PADEP will be petitioned to approve a reduction in the number of groundwater attainment sampling events.

<sup>26</sup> Each bidder's approach to implementing Milestone F shall clearly identify the number of sampling events, number of wells / samples per event, well purging and sampling method(s), QA/QC measures, analytes, purge water management methods, and other key assumptions affecting the bid price.

parameters: pH, temperature, specific conductance, dissolved oxygen (measured in-situ), and oxidation/reduction potential.

The groundwater attainment demonstration reports describing the sampling methods and results will be provided to the PADEP on a quarterly basis and within 30 days of the receipt of analytical results for each quarter. At a minimum, each attainment demonstration report shall contain the following:

- Narrative description of the sampling procedures and results;
- Tabulated data collected from the monitored wells documenting the depth to groundwater and thickness of any free product encountered;
- Groundwater elevation contour maps depicting groundwater flow direction;
- Tabulated historical quantitative groundwater analytical results including results from the current quarter;
- Current quarter laboratory analytical report(s);
- One site-wide iso-concentration contour map for each compound detected in any one well above the SHS during the quarter;<sup>27</sup>
- For each well exceeding the SHS, a graphical depiction of historical key contaminant concentrations and groundwater elevations to provide an assessment of correlations between fluctuating water levels / precipitation events and contaminant concentrations;
- For each well exceeding the SHS, a graphical depiction of recent key contaminant concentration trends and results of any qualitative and quantitative analysis;
- Discussion of the data to offer an updated assessment whether these data are consistent with a stable, shrinking, or expanding plume;
- An assessment of the progress made toward successful demonstration of attainment during the reporting period (invoking the 75% / 10x and 75% / 2x Ad Hoc statistical rules as necessary);
- Treatment and disposal documentation for waste generated during the reporting period; and
- Demonstration of compliance with the required Federal, State, and local permits and approvals.

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<sup>27</sup> All figures included in each RAPR (e.g., site plan, groundwater elevation maps, dissolved plume maps, etc.) shall be available in electronic format from the Solicitor upon request.

Each groundwater attainment demonstration report shall be sealed by a Professional Geologist and / or Professional Engineer registered in the Commonwealth of Pennsylvania (bidders shall refer to state licensing laws to determine which seals are required based on the work performed for and documented in the groundwater attainment demonstration report).

### **Milestone G – Soil Attainment Demonstration**

Bidders are to detail the proposed work scope and fixed price cost for soil attainment based on the bidder's proposal remedial approach as follows:

#### RAP-specified Soil Excavation Plus MNA Approach

Bidder's shall describe and provide a fixed price cost for soil attainment demonstration in the event that the post-excavation biased sampling conducted under Milestone E failed to demonstrate attainment. In this case, the successful bidder will need to demonstrate soil attainment in the areas where the SCR/RAP had identified excessive soil impacts above SHS for the unsaturated and periodically saturated soils: (a) on-property; (b) on the adjacent private property; and (c) in the public road (Main Street) / right of way. For (a) on-property, bidders shall describe using 2 dimensional systematic random sampling of the vertical space outside the perimeter of the excavated area. For off-property (b) and (c) areas, bidders shall describe using 3 dimensional systematic random sampling of those areas. The attainment sampling shall be completed to demonstrate attainment of these areas and each bid must describe in detail their approach at addressing soil attainment, and include the depth interval and a drawing showing the locations where the sampling grid would be applied to demonstrate soil attainment.

The location / depth of the soil samples shall be determined using PADEP's systematic random sampling (SRSS) procedures, assuming one soil sample per boring shall be submitted for laboratory analysis. Alternate SRSS points shall be selected for any primary SRSS sample locations positioned within the clean backfill of the former UST cavity and any existing below grade utilities (i.e. public sewer, electric, and natural gas). Soil samples shall be analyzed for the post-March 2008 PADEP short list for unleaded gasoline parameters (BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, and 1,3,5-TMB). Appropriate quality assurance/quality control (QA/QC) samples shall also be obtained for laboratory analysis. The soil sampling results shall be analyzed using PADEP's 75%/10x Ad Hoc Rule, which shall be documented in detail in the RACR.<sup>28</sup> Bidders are expected to describe the statistical methods available to determine whether the systematic random soil sampling results demonstrates attainment of the SHS.

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<sup>28</sup> The Remediation Agreement includes a Site Specific Assumption that the soil sampling data will allow for attainment of the selected standard.

### Alternative Remedial Approaches

Under either of the alternative remedial approaches, bidder's shall describe and provide a fixed price cost for soil attainment demonstration in the areas where the SCR/RAP identified excessive soil impacts above SHS for the unsaturated and periodically saturated soils: (a) on-property; (b) on the adjacent private property; and (c) in the public road (Main Street) / right of way. For all three areas, bidder's shall describe the describe using 3 dimensional systematic random sampling of those areas. The attainment sampling shall be completed to demonstrate attainment of these areas and each bid *must* describe in detail their approach at addressing soil attainment, and include the depth interval and a drawing showing the locations where the sampling grid would be applied to demonstrate soil attainment.

The location / depth of the soil samples shall be determined using PADEP's systematic random sampling (SRSS) procedures, assuming one soil sample per boring shall be submitted for laboratory analysis. Alternate SRSS points shall be selected for any primary SRSS sample locations positioned within the clean backfill of the former UST cavity and any existing below grade utilities (i.e. public sewer, electric, and natural gas). Soil samples shall be analyzed for the post-March 2008 PADEP short list for unleaded gasoline parameters (BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, and 1,3,5-TMB). Appropriate quality assurance/quality control (QA/QC) samples shall also be obtained for laboratory analysis. The soil sampling results shall be analyzed using PADEP's 75%/10x Ad Hoc Rule, which shall be documented in detail in the RACR.<sup>29</sup> Bidders are expected to describe the statistical methods available to determine whether the systematic random soil sampling results demonstrates attainment of the SHS.

**Milestone H – Preparation, Submission, and PADEP Approval of Remedial Action Completion Report (RACR).** Under this milestone, the bidder shall provide a fixed-price cost to prepare a draft and final RACR following the completion of Milestones A through G. The RACR shall be prepared in accordance with Section 245.313. At a minimum, the RACR shall provide the details and results for Tasks A through G. The RACR shall also discuss the selected closure criteria for the site, provide proof of soil and groundwater attainment, and request permanent closure of the site for the current release under an Act 2 Relief of Liability (ROL). The project schedule should allow two (2) weeks for Solicitor and PAUSTIF review of the draft RACR before a final version is submitted to the PADEP. The selected consultant shall then prepare and submit the final RACR to the PADEP in accordance with Section 245.313. The final report shall be sealed by a Professional Geologist and / or Professional Engineer registered in the Commonwealth of Pennsylvania (bidders shall refer to state licensing laws to determine which seals are required based on the work performed for and documented in the

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<sup>29</sup> The Remediation Agreement includes a Site Specific Assumption that the soil sampling data will allow for attainment of the selected standard.

RACR). The fixed-price cost shall also include addressing any PADEP comments on the RACR.

**Milestone I – Site Closure / Restoration Activities.** Under this milestone, the bidder shall describe and provide a fixed-price bid for properly closing the site, including: proper disposal of any remaining wastes; in-place abandonment of monitoring wells and soil vapor monitoring points consistent with PADEP guidelines; well head removals; removal of remedial equipment, disconnection of utilities, and in-place abandonment of below-grade piping (if applicable); and re-vegetation, concrete / asphalt repairs, as necessary, for areas that have been disturbed by site characterization or remedial action activities. This task shall also include photo-documenting the site restoration work and completion / submittal of the well abandonment forms to the appropriate regulatory agencies. Copies of these photographs and forms shall be provided for the Solicitor's and PAUSTIF's files.

Each bid shall specify the number of days required for initiating Milestone I following approval of the RACR by PADEP. All site closure / restoration work shall be coordinated with the Solicitor and be conducted in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives.

If applicable, the selected consultant shall determine whether the Solicitor wishes to maintain any components of the remedial system (e.g. treatment building) before removing them from the Site.

**Milestone J – Additional Quarterly Groundwater Monitoring, Sampling, & Reporting (Cost Adder Milestone).** Under this milestone, bidders shall provide the Solicitor and PAUSTIF with a firm quarterly fixed-price unit cost that would include quarterly groundwater monitoring and sampling of the on- and off-property monitoring wells and reporting beyond the timeframe specified in Milestone D. The SOW for this unit cost adder milestone shall follow Milestone D guidelines. Each bid must include the rationale for implementing this optional cost adder milestone.

**Milestone K – Additional Monitoring Well Abandonment and Installation of Replacement Monitoring Well (Cost Adder Milestone).** Under this milestone, bidders shall provide the Solicitor and PAUSTIF with a firm fixed-price unit cost per monitoring well abandonment / replacement, and including well development and surveying beyond the two wells included under Milestone E. Each bid shall include a description of the methods for well abandonment and drilling / installation of the replacement well. Construction details for the replacement wells shall be identical to existing wells abandoned. Each bid must also include the rationale for implementing this optional cost adder milestone.

**Additional Information**

In order to facilitate PAUSTIF's review and reimbursement of invoices submitted under this claim, the Solicitor requires that project costs be invoiced by the milestone identified in the executed Remediation Agreement. Actual milestone payments will occur only after successful and documented completion of the work defined for each milestone. The selected consultant will perform only those tasks/milestones that are necessary to reach the Objective identified in this RFB. Selected consultant will not perform, invoice, or be reimbursed for any unnecessary work completed under a milestone.

Any "new conditions", as defined in Attachment 1, arising during the execution of the SOW for any of the milestones may result in termination of or amendments to the Remediation Agreement. Modifications to the executed Remediation Agreement will require the written approval of the Solicitor and the PAUSTIF. PADEP approval may also be required.

## **List of Attachments**

1. Remediation Agreement
2. Bid Cost Spreadsheet
3. Site Information/Historic Documents
  - a. Figures 1 through 5
  - b. Remedial Action Progress Report, Second Quarter 2015, dated July 1, 2015
  - c. Updated Site Characterization Report and Remedial Action Plan, dated May 15, 2015
  - d. Remedial Action Progress Report, First Quarter 2015, dated April 20, 2015
  - e. Remedial Action Progress Report, Fourth Quarter 2014, dated January 20, 2015
  - f. Remedial Action Progress Report, Third Quarter 2014, dated October 29, 2014
  - g. Remedial Action Progress Report, Second Quarter 2014, dated July 23, 2014
  - h. Remedial Action Progress Report, First Quarter 2014, dated June 2, 2014
  - i. Site Characterization Report, dated January 20, 2014
  - j. Underground Storage Tank System Closure Report Form, dated August 22, 2012
  - k. Underground Storage Tank System Closure Report Form, dated January 26, 1999
  - l. Other Information