

Request for Bid

Fixed-Price Defined Scope of Work

Final Design, Installation, Operation, and Maintenance of Remedial System, Remedial System Performance Monitoring, Quarterly Groundwater Monitoring, Sampling, and Reporting, Remedial Action Completion Report Submittal, and Final Closure Activities

Solicitor

Pump N Pantry, Inc.

**Pump N Pantry #001
618 Crossley Road
Montrose, PA 18801
Bridgewater Township, Susquehanna County**

PADEP Facility ID #: 58-13092 PAUSTIF Claim #: 2015-0126(I)

Date of Issuance

July 30, 2019

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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 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. The Solicitor is responsible to pay any applicable deductible and/or proration. The deductible has been met and no proration is applicable on this claim.

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 <https://ustif.pa.gov>.

Calendar of Events

Activity	Date and Time
Notification of Intent to Attend Site Visit	August 7, 2019 by 5 p.m.
Mandatory Pre-Bid Site Visit	August 9, 2019 at 10 a.m.
Deadline to Submit Questions	August 14, 2019 by 5 p.m.
Bid Due Date and Time	August 23, 2019 by 3 p.m.

Contact Information

Technical Contact
Mr. Timothy J. Pilcher, P.E. B&B Diversified Enterprises, Inc. PO Box 70 Barto, PA 19504 Phone – 570-369-5410 Fax – 610-845-0650 Email – tpilcher@bbde.com

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 **“Pump N Pantry #001 - PAUSTIF Claim #: 2015-0126(I) – RFB QUESTION”**. Bidders must neither contact nor discuss this RFB with the Solicitor, PAUSTIF, the Pennsylvania Department of Environmental Protection (PADEP), or 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. Subsequent to the Site tour, the Technical Contact will collect questions that are submitted in writing and respond via email. All questions and answers will be provided via email to all attendees. This meeting is mandatory for all bidders with 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 "Pump N Pantry #001 - PAUSTIF Claim #: 2015-0126(I) – 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 # 2015-0126(I)".** 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 unless otherwise noted. 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. Bids should include enough original language conveying bidder's thought such that the understanding of site conditions, closure approach (if applicable), and approach to addressing the scope of work can be evaluated. Since bidders are not prequalified, the bid response must provide the Bid Evaluation Committee and Solicitor enough information to complete a thorough review of the bid and bidder.
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”.
11. The name and contact information of the person who is to be contacted in the event the bid is selected by the Solicitor and/or a Right to Know request is received by PAUSTIF.

Bid Review, Scoring and Evaluation

Bid Review and Scoring

Bidders' submissions that are administratively qualified (attend the mandatory pre-bid site meeting, submission of the bid by the designated due date and time) will be evaluated.

Technical Scoring

Bids are evaluated for technical viability before cost is considered. Bids that have technical scores that fall within 75% of the highest technical score will advance to cost scoring. Bids with technical scores below 75% of the highest technical score are eliminated from further consideration.

Numerical values will be assigned for defined SOW bids for two categories:

- Understanding the problem and demonstrating knowledge of how to perform the work
- Qualifications and Experience

Numerical values will be assigned to three categories in those cases where there is a bid-to-result request:

- Understanding of the problem
- Technical and Regulatory Approach to Remediation
- Qualifications and Experience

Cost Scoring

Cost scores are determined by a cost formula. The bid(s) with the lowest total cost receives the maximum cost points available. The remaining bids are scored by applying the following cost formula: $(1 - ((B - A) / A)) \times C = D$

A = the lowest bid cost

B = the bidder's cost being scored

C = the maximum number of cost points available

D = bidder's cost score (points)

If a bid cost is equal to, or greater than, twice the amount of the lowest bid cost, the formula calculation will result in a zero or negative number and the bid will be assigned zero cost points.

Evaluation of Bids

A committee comprised of at least two members of the PAUSTIF staff, two members of ICF staff, and the TPR who assisted in developing the bid package will score all bids that are administratively qualified based on the above criteria. PAUSTIF recognizes that several bids

may be acceptable and receive similar numerical scores. At the conclusion of the scoring process, the claimant will receive those bids whose numerical scores place them in the category of meeting Reasonable and Necessary criteria and acceptable for PAUSTIF funding. The claimant may select any of the consulting firms that submitted a qualified bid package to implement the tasks described in the bid; however, PAUSTIF will only provide funding up to the highest fixed price of those bids determined to be Reasonable and Necessary for PAUSTIF funding.

General Site Background and Description

Each bidder should carefully review the existing information and documentation provided in Attachment 3. The information and documentation have 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.

Site Address

Pump N Pantry #001
618 Crossley Road
Montrose, Pennsylvania 18801
Bridgewater Township, Susquehanna County

Site Location and Operation Information

The Site is located on the southeastern side of Grow Avenue (Route 29) in Bridgewater Township, Susquehanna County, Pennsylvania. The Site is located on a parcel of land with an approximate size of 5.18 acres. The property is currently owned by Leighter Corporation. Leighter Corporation and Pump N Pantry, Inc. are owned and operated by the same person. The parcel includes an office building, a convenience store building, and two fuel dispenser canopies. Specifically, the subject facility (Pump N Pantry #001) includes a one-story convenience store building, a two-story office building, two unleaded gasoline USTs (5,000-gallon and 20,000-gallon), three diesel fuel USTs (5,000-gallon, 7,000-gallon, and 20,000-gallon), six unleaded gasoline dispensers, and three diesel fuel dispensers. A surface water drainage divide is located at the Site. The Site elevation is approximately 1,650 feet above mean sea level, and surface drainage flows to the north on the northernmost portion of the property and to the southwest on the remaining majority of the property.

Properties in the vicinity of the Site are a mix of undeveloped, residential, light commercial, and industrial. The eastern portion of the Site property is undeveloped woods. The Site is bordered by Grow Road and commercial and industrial properties to the north; residential properties to the east; a PennDOT storm water retention basin, Crossley Road, commercial properties, and a bulk fuel facility to the south; and Grow Road and light commercial properties to the west. The Site and surrounding area are provided public water supply (Pennsylvania American Water Company) and sanitary sewer service (Montrose Municipal Authority).

Site Background Information

Limited information indicates that two USTs were removed from the Site in 1996. There is no record that a release related to these USTs was reported at the Site or that UST Closure activities were completed.

There are currently two (2) open release incidents at the Site. The first release incident (PADEP Incident #48572 and PAUSTIF Claim #2015-0126(I)) was discovered in October 2015 during facility upgrade activities. One kerosene, two diesel fuel, and two unleaded gasoline USTs (Tanks #003 through #007) were removed from the Site, and a Closure Report was submitted to the PADEP. During the UST removals, obvious indications of petroleum impacts, which included pitting on UST #004, petroleum vapors, stained UST backfill material, and a sheen on the surface of the groundwater, were observed. The initial soil and groundwater characterization activities completed for this release incident indicated that soil and/or groundwater exceeded the Statewide Health Standards (SHS) in the areas of former Tank #003, Tank #006, Tank #007 and the gasoline dispenser islands. The first release incident is located on the northern half of the property in the areas associated with the historical UST systems. The second release incident (PADEP Incident #50143 and PAUSTIF Claim #2017-0021(I)) occurred on January 31, 2017 when a surface release of approximately 250 to 300 gallons of unleaded gasoline occurred at the Site. This occurred when a vehicle backed over a tanker truck fuel delivery line during delivery. This release occurred at the southwestern most area of the property associated with the current unleaded gasoline UST systems.

From October 2015 through December 2017, the current consultant conducted multiple soil and groundwater investigations within the source areas and offsite in an effort to complete site characterization. The intent was to characterize the source areas on the Site and delineate soil/groundwater impacts on site and off site in response to the releases that were confirmed in October 2015 and January 2017. Investigation activities performed by the consultant included the completion of a sensitive receptor survey; advancement of 31 soil borings; collection and analysis of 106 soil samples from excavations, test borings, and monitoring well borings; collection and analysis of four (4) groundwater samples from excavations and test pits; installation of 15 monitoring wells; completion of seven (7) quarters of groundwater monitoring and sampling; aquifer testing; fate and transport analysis; vapor intrusion evaluation; and a review of remedial options. Soil and groundwater samples were collected throughout the characterization process for laboratory analyses. The results of these activities are summarized in the multiple reports that have been submitted to the PADEP and are attached to this RFB.

Top of consolidated bedrock was encountered at approximately 4 to 17 feet below grade (ftbg) during drilling and installation of the Site monitoring wells. Groundwater is present at the Site in the overburden and upper weathered bedrock zone at depths ranging from approximately 2.3 to 7.7 ftbg. Groundwater flow direction at the Site is primarily to the south-southwest.

During the October 2015 UST removal activities, 1,432.82 tons of contaminated soil was excavated and transported offsite for disposal. This interim remedial activity was completed in relation to release incident #48572, the release associated with the former UST system. Subsequently, in June 2016, an additional 1,580.77 tons of soil was excavated and transported offsite for disposal. Again, this additional soil excavation event was completed in relation to release incident #48572. During the soil excavation activities, 25,300-gallons of impacted groundwater was pumped/extracted, treated onsite with granular activated carbon and

discharged to the local POTW under a permit from the local sewer authority. Post excavation soil samples collected during the June 2016 excavation event demonstrated, with satisfaction of the 75/10x statistical test, attainment of the selected Non-residential SHS for vadose zone soils in the area of the former UST systems.

In February 2017, 26.6 tons of soil was excavated and transported offsite for disposal. This soil excavation event was completed in relation to release incident #50143, the surface release at the southwestern area of the Site. Five (5) biased soil samples were collected from the excavation, and the sample results demonstrated attainment of the selected Non-residential SHS for vadose zone soils in the area of release incident #50143.

On September 13, 2017, the consultant completed a High Vacuum Extraction (HiVac) event on OW-4. A total of 1,622-gallons of groundwater was extracted in a 7.7 hour period.

A Final Site Characterization Report (FSCR), dated January 9, 2018, was prepared by the consultant and submitted to the PADEP. The selected standards listed in the FSCR were Non-Residential SHS for Used Aquifers for all constituents of concern in soils and groundwater. The FSCR was approved by PADEP in a letter dated March 15, 2018.

From June 29, 2018 through July 31, 2018, the consultant completed oxygen injection pilot testing activities using three (3) newly installed injection points (IP-1 through IP-3) and three (3) monitoring points (MP-1 through MP-3) and existing Site monitoring wells. The results of the oxygen injection testing indicated that oxygen injection was not an optimal remedial alternative for the Site. The consultant prepared and submitted a Revised Remedial Alternatives Analysis Report (Draft), dated August 31, 2018, to PAUSTIF for review.

From December 18 to 20, 2018, the consultant completed air sparge (AS) and soil vapor extraction (SVE) pilot testing activities using three (3) newly installed SVE points (SVE-1 through SVE-3) and the existing IP's, MP's, and MW's.

A Remedial Action Plan (RAP), dated February 25, 2019, was prepared by the consultant and submitted to PADEP. The selected standards listed in the RAP were Non-Residential SHS for Used Aquifers for all constituents of concern in soils and groundwater. The pilot testing activities, results, and final remedial plan were documented in the RAP. The RAP proposed a combination AS/SVE system to remediate soil and groundwater at the Site. The PADEP approved, with modifications, the RAP in a letter dated April 18, 2019.

A Remedial Action Plan Addendum (RAPA), dated May 20, 2019, was prepared by the consultant and submitted to the PADEP to address several AS/SVE system design modifications and PADEP's modification requests. The PADEP approved the RAPA, with modifications, in a letter dated May 30, 2019.

On June 6, 2019, the consultant proposed to PADEP in an email that release incident #50143 (surface release) be addressed with a separate Remedial Action Completion Report (RACR) from release incident #48572. PADEP responded on June 6, 2019 indicating that release incident #50143 could be addressed with a separate RACR to obtain a relief of liability for that release.

However, PADEP requested that the monitoring wells associated with release incident #50143 (MW-10, MW-11, MW-13, and MW-14) remain in place until release incident #48572 was completely addressed. During the 1st and 2nd quarters of 2019, groundwater monitoring and sampling events were completed for monitoring wells MW-1 through MW-15 and observation wells OW-1 through OW-4. The current consultant will be submitting a RACR to obtain a relief of liability for incident #50143. For the purposes of this bid, it is assumed that wells MW-10 through MW-14, OW-3, and OW-4 will not be sampled during the scope of this bid. However, since these wells are to remain in place through closure of incident #48572, the abandonment of these wells are included in the work scope and costs of this bid.

PADEP also requested some additional information regarding observation well OW-4 and a recovery well RW-1 and whether they should be properly abandoned to eliminate any potential preferential infiltration pathways. OW-4 is a tank field monitoring well, and for the purposes of this bid, it is assumed that OW-4 will remain in place and will not be abandoned. RW-1 was destroyed during the excavation activities in the area of incident #50143, and therefore, does not require abandonment.

Currently and prior to the award of this bid, quarterly groundwater monitoring, sampling, and reporting will continue to be completed by the current consultant for the entire monitoring well network at the Site including MW-1 through MW-15 and OW-1 through OW-4. Once the RACR is approved for incident #50143, the current consultant will continue quarterly groundwater monitoring, sampling and reporting of the well network with the exception of wells MW-10 through MW-14, OW-3, and OW-4, until the selected bidder takes over the site.

Scope of Work

This RFB seeks competitive bids from qualified contractors to perform the activities in the SOW specified herein. PADEP has indicated that they would not review this SOW, as they have approved the RAP and RAPA, which are the basis for the work included in this SOW.

Objective

In general, the SOW described in this RFB requires pre-remedial groundwater gauging, sampling, and reporting on a quarterly basis; final design and installation of the proposed AS/SVE remediation system as described in the February 25, 2019 RAP and May 20, 2019 RAPA; start-up and shakedown of the installed remediation system; eight (8) quarters of operation and maintenance (O&M) of the AS/SVE remediation system, system performance monitoring, groundwater gauging, sampling, and reporting during the operation of the remediation system; engineering evaluations of the remediation system's effectiveness after one quarter and four quarters of O&M activity; demonstration of attainment soil sampling; quarterly demonstration of attainment groundwater gauging, sampling, and reporting; RACR preparation and submittal; remediation system decommissioning and restoration; and monitoring well abandonments. These work scope elements are intended to include all tasks leading to site closure for the covered

release impacts in soil and groundwater. The SOW contained in this RFB has been developed and structured as a defined work scope-type solicitation. Therefore, in reviewing the quality of bids submitted under this type of solicitation, there is a greater emphasis placed on cost over technical approach (as compared to bids offered in response to “Bid to Result” RFBs). Nevertheless, technical detail, accuracy, and completeness remain important and are evaluated against the SOW requirements.

Constituents of Concern

The list of constituents of Concern (COCs) for this Site include the following:

- Benzene
- Toluene
- Ethylbenzene
- Total Xylenes
- MTBE (Methyl tert-butyl ether)
- Naphthalene
- Cumene (Isopropylbenzene)
- 1,2,4-Trimethylbenzene
- 1,3,5-Trimethylbenzene.

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:¹

- 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 (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 (IDW), 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. All investigation and remediation derived wastes shall be handled and disposed per PADEP's Regional Office guidance. 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.

¹ As such, all bids shall include the costs of these activities and associated functions within the quote for applicable tasks/milestones.

Site-Specific Guidelines

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

- **Scheduling:** As part of this RFB, the selected consultant shall provide a clear deadline (i.e., within 30 days of the contract being executed or a specific date) as to when each of the milestones will be completed. This includes the expected date when the system construction will begin and the date of system startup. Please note that bid responses need to provide a very detailed schedule and that the expectation is that the schedule included in the bid responses will at a minimum meet all of the scheduling deadlines included in the recently approved May 20, 2019 RAPA. It is anticipated that the Remediation Agreement will be signed by the selected consultant and the claimant by no later than October 1, 2019. All on-site work should be completed during the normal working days and hours of 8 am to 5 pm from Monday through Friday.
- **Responsibility:** The selected consultant will be the consultant of record for the Site. They will be required to take ownership and responsibility for the project and will be responsible for representing the interests of the Solicitor and PAUSTIF with respect to the project. This includes utilizing their professional judgment to ensure reasonable and appropriate actions are recommended and undertaken to protect sensitive receptors, adequately characterize the Site, and move the Site towards closure. By submitting a bid, Bidders agree that the proposed system will be effective in remediating the Site to compliance with the selected closure standards in the approved RAP and RAPA.
- **Scope of Work:** Please bid the scope of work as provided in the RFB. Consultants are welcome to propose or suggest a change in the SOW; however, the consultant should bid the SOW as presented in the RFB and provide any suggested modification to the SOW and provide the cost difference (+ or -) separately in the proposal. This should include any compelling rationale for the suggested change(s).
- **Selected Standards:** According to the recent RAP and RAPA, the claimant has selected to remediate the groundwater and soil at the Site to Non-Residential Statewide Health Standards for all constituents of concern.
- **Safety Measures:** Each bidder should determine the level of safety measures needed to appropriately complete the milestones. Specifically, if a consultant feels it is appropriate and necessary to complete additional safety measures other than or beyond what is required in the SOW (i.e. utility clearance and/or air knifing before trenching/drilling), the cost should be included in their proposal and costs. More importantly, if a consultant includes the cost to complete safety activities, they should specify it in their proposal 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 proposals, and other factors are taken into consideration during the review process, including appropriate safety measures.

- **Waste Disposal:** All IDW should be disposed of per the instructions included in the “General SOW Requirements” section of the RFB. Bidders will be responsible for arranging any offsite 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. In an effort to eliminate or minimize the need for change orders on a fixed price contract, please include costs to dispose of all anticipated volumes of waste in your bid response. PAUSTIF will not entertain any assumptions on the contract with regards to a volume of waste (i.e. Project costs assume that no more than 1,000 gallons of groundwater will require disposal after the completion of the pump test). 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. Please estimate the volume of waste using your professional opinion, experience, and the data provided. Invoices submitted to cover additional costs on waste generated as part of activities included under the fixed price contract for this Site will not be paid. If your bid proposes to dispose of waste under a permit, then your bid needs to address the potential situation of a permit not being approved. Bids need to specifically indicate that your bid costs include the costs to dispose of the waste even if a permit is not approved. As indicated in the bid, there should be no assumptions on waste and assuming that a permit will be approved is still making an assumption on waste.
- **Standard Operating Procedures:** Please include in the bid as an attachment, your firm’s standard operating procedures for all major field tasks proposed in the scope of work.
- **Prior Approval – Optional Cost Adder Milestones:** For consideration of PAUSTIF reimbursement, Solicitor and PAUSTIF approval must be obtained prior to completing any Optional Cost Adder Milestones. Milestone A through Milestone N (excluding milestones K9 through K12) represent the base SOW for this RFB solicitation. In addition to the above base SOW, the Optional Cost Adder Milestones (Milestones K9 through K12 and Milestones O and P) need to be addressed in your bid response. These cost adders will not be part of your initially approved base contract price. However, if it becomes necessary to complete any of these activities, they will be completed under the Remediation Agreement signed as part of this project.
- **Milestones with Multiple Events:** Several Site-Specific Milestones and Optional Cost Adder Milestones include multiple events. For those milestones, PAUSTIF will only reimburse the selected bidder for the actual number of events conducted (i.e. if a bidder includes the costs to complete two events, but only one event is conducted; then the bidder will only be paid for the one event completed).
- **Recent PADEP Correspondence:** The March 18, 2019 PADEP SCR approval, April 18, 2019 PADEP RAP approval, May 30, 2019 PADEP RAPA approval, and June 6, 2019 PADEP email chain are included in Attachment 3.

- **Additional Notes on SOW:** Please note that the current consultant will be completing some of the SOW proposed in the RAP, RAPA, and PADEP correspondence in an effort to fulfill the requirements of and keep the schedule proposed in the RAPA and approved by the PADEP. All available well logs, data, and information will be provided to the selected consultant after bid award. Specifically, the current consultant will be completing the following:
 - Quarterly groundwater monitoring, sampling, and reporting prior to the award of this bid.
 - Preparation and Submittal of a RACR for release incident #50143 (surface release).

Site-Specific Milestones

The following Site-Specific Milestones are to be included in bid responses:

Milestone A – Preparation and PADEP Approval of a Remedial Action Plan Addendum (RAPA): The selected consultant will prepare a brief, letter format RAPA for the Site requesting PADEP’s approval to eliminate monitoring wells MW-10 through MW-14, OW-3, and OW-4 from the quarterly sampled monitoring well network and provide potential modifications to the remedial implementation schedule. These monitoring wells are located in the area of and associated with release incident #50143, the surface release at the southwestern portion of the property. The RAPA should indicate that these monitoring wells will remain in existence for potential use as monitoring points or point of compliance (POC) monitoring wells for release incident #48572, if necessary. Specifically, the RAPA should indicate that release incident #50143 either was or will be addressed under a separate RACR submittal.

The RAPA should present a clear discussion to the PADEP as to why it is not necessary to sample these monitoring wells during the pre-remedial and active remedial phases of the project.

The report will be appropriately signed and sealed by a Professional Geologist registered in the Commonwealth of Pennsylvania.

The draft RAPA and all AutoCAD maps / plans included in the report (e.g., site plan / base map, groundwater elevation maps, dissolved plume maps, soil contaminant distribution maps, etc.) and appendices (e.g., boring logs, tables, waste disposal documentation, aquifer testing and analysis, transducer survey results and analysis, and sensitive receptor information) shall be submitted electronically (in Adobe PDF format) to the Solicitor and PAUSTIF for review / comment at least 2 weeks prior to finalizing the RAPA. Once the selected consultant has addressed comments on the draft, the selected consultant shall

finalize and issue the report to the PADEP. The final report is to be submitted no later than the date specified in the schedule presented by the selected consultant.

Milestone B – Quarterly Groundwater Monitoring, Sampling, and Reporting Before Remediation Implementation: For this milestone, the total number of groundwater monitoring and sampling events that will be needed is 2 quarterly events. Specifically, consultants should include costs to complete 2 quarterly groundwater sampling activities scheduled to be completed prior to the start-up of the remediation system and implementation of the remedial strategy. Each quarterly groundwater sampling event should include the monitoring and sampling of the existing 12 shallow wells including MW-1 through MW-9, MW-15, OW-1, and OW-2). Bid responses as well as the Bid Cost Spreadsheet should clearly indicate the number of quarters that are included in the costs for this milestone. The selected consultant should be prepared to conduct the first groundwater sampling event at the Site in November 2019 (approximately four (4) weeks after the execution of the contract). Following the completion of each quarterly groundwater sampling event, the selected consultant should prepare a RAPR for submittal to the PADEP.

Each event should include the following:

- The groundwater monitoring and sampling should be conducted in accordance with generally accepted practices as outlined in the PADEP Groundwater Monitoring Guidance Manual, (Appendix A of the PADEP Land Recycling Program Technical Guidance Manual, Document No. 261-0300-101, dated January 19, 2019).
- Collect water level readings from each of the monitoring wells using an interface probe capable of distinguishing water and/or the presence or absence of product to the nearest 0.01 feet.
- Prior to the collection of groundwater samples, the water column in each of the monitoring wells should be purged by either the removal of approximately three (3) volumes of the water column, via EPA low flow sampling method or other PADEP acceptable method.
- Following purging activities, groundwater samples should be collected as quickly as practical from each of the wells into laboratory supplied bottle ware.
- Sampling equipment should be decontaminated (if necessary) prior to sample collection in accordance with generally accepted industry practices.
- In addition, one equipment blank sample (if necessary) will be collected and submitted per day of sampling
- Groundwater samples collected during each of the events will be sent to an accredited laboratory to be analyzed for the above noted COCs.

- Samples should be properly handled under chain of custody documentation protocol and kept cold from the time of sample collection until the samples are relinquished to the accredited laboratory.
- The laboratory to be utilized should be identified in the bid package.
- If a NPDES permit has been issued, completion/submittal to PADEP of a monthly Discharge Monitoring Report will be required.
- If a municipal sanitary sewer discharge permit has been issued, completion/submittal to the sanitary sewer authority of the necessary and required discharge monitoring reports will be required.
- The quarterly RAPRs should detail the observations documented during the event, summarize the analytical results, map the groundwater flow direction for the Site, provide iso-concentration maps for compounds exceeding the SHS, provide hydrographs, discuss the interim remediation efforts (if any), and provide additional scheduling details for upcoming events.
- **All IDW waste** should be disposed of per the instructions included in the “General SOW Requirements” and “Site Specific Milestones” section of the RFB.

Milestone C – Private Utility Mark-Out: Prior to any intrusive investigation and/or remediation system installation work at the Site, a private mark-out is to be conducted at the Site to confirm the location of any obstruction or underground utility present in the vicinity of the proposed intrusive activity locations. The locations of the identified features should be marked with white paint on the asphalt areas and white flags in grassy areas. A report shall be provided with an explanation of the identified features.

Milestone D through Milestone I – Final Remedial Design, Remedial Installation, Implementation and Operation. For this milestone, bidders should include all necessary activities and costs associated with the final design, purchase, installation, startup, and implementation of the remedial strategy. The successful bidder shall demonstrate that the remedial strategy selection would be effective in attaining the remediation goals for the project and be able to meet the schedule proposed in the May 20, 2019 RAPA. As discussed, the remedial technology recently approved by PADEP was the installation and operation of combination Air Sparge and Soil Vapor Extraction (AS/SVE) system that combines the technologies of air injection below the water table and air extraction from the unsaturated zone. Bidders must propose to construct and operate the AS/SVE system as presented and specified in the PADEP approved February 25, 2019 RAP with the modifications included in the May 20, 2019 RAPA as their proposed remedial approach. Please note that bidders should provide a discussion and costs regarding how SVE extracted groundwater will be dealt with during operation of the remediation system. The costs and initial design are to include equipment to pump out the SVE moisture separator,

treat the water, and discharge to either the storm sewer or sanitary sewer system at the Site including but not limited to all necessary process equipment (pump(s), holding tank, liquid GAC, etc.); piping, fittings, and gauges; any necessary trenching, pipe laying, backfilling, and resurfacing to run the water discharge line to the selected sewer discharge; and any discharge permit procurement costs.

These milestones would cover all activities and costs related to the implementation of the strategy as described in the recently approved RAP and RAPA including the quarterly groundwater sampling events and quarterly remedial progress reports to be completed during the implementation of the remedial strategy. Please note that the number of monitoring wells to be included in the quarterly groundwater monitoring and sampling costs is 12, as discussed in Milestone B. As discussed, the fixed cost for this milestone in submitted bid responses needs to include all activities and sufficient costs related to the selected remediation strategy. Where applicable, this may include activities such as all telemetry triggered visits, first two (2) GAC change outs (two (2) liquid and two (2) vapor phase change out events), and equipment maintenance, etc. The only cost that should be excluded from the bid response is the monthly utility bills and sanitary sewer discharge bills (if applicable), which are discussed below in greater detail.

In addition, bid responses should be formatted with very detailed text and costs using the following milestone breakout:

Milestone D1 – Final Remedial Design and Air and Water Discharge Permit Determination and/or Procurement(s)

Milestone D2 – Trenching, Piping, Mechanical, and Electrical

Milestone D3 – System Procurement, Assembly, and Remedial Equipment Compound

Milestone D4 – Final Connections and Startup Testing of Remediation System

Milestone E1 through E8 – Quarterly Remediation System O&M; Groundwater Monitoring, Sampling, & Reporting; and Discharge Monitoring Reporting During Remediation

Milestone F1 & F2 – Vapor Phase Carbon Change Outs

Milestone G1 & G2 – Liquid Phase Carbon Change Outs

Milestone H1 through H12 – Monthly Utility Charges (Marked in Bid Response as Actual Cost/TBD and as \$0 in the Bid Cost Spreadsheet)

Milestone I1 through I12 – Monthly Sanitary Sewer Water Discharge Charges (Marked in Bid Response as Actual Cost/TBD and as \$0 in the Bid Cost Spreadsheet)

With regards to the discussion on remediation in Milestones D through Milestone I, bid responses should note the following:

- Bid responses should describe in great detail how the strategy will be implemented.
- Bid responses should be based on a fixed 1 year (4 quarters) of system operation time frame. If agreed upon by all parties that additional quarters of system operation are appropriate; then any additional quarters of Milestone E activities will be addressed as an optional cost adder milestone.
- Bid responses should clearly discuss the reasons as to why the selected strategy is applicable to this Site.
- Bid responses should clearly discuss the construction and operation of the AS/SVE system in accordance with what is proposed in the PADEP approved RAP and RAPA.
- Bid responses should clearly note, on a schedule, how the payments for these milestones will be specifically broken out for the remedial strategy, the anticipated completion date, and the documentation to be submitted as proof of payment by providing a specific milestone schedule in the bid response that details the strategy proposed in the bid response. The aforementioned milestone schedule should be in a format similar to the milestone schedule included in the Remediation Agreement.
- Bid responses should clearly acknowledge that PAUSTIF will require the selected consultant to meet a Professional Engineer from the firm listed as the Technical Contact for an onsite system inspection. The aforementioned meeting will occur onsite in an effort to review the installed and operational remediation system and confirm that the system has been constructed as presented. Following the meeting, the Professional Engineer will provide PAUSTIF, the solicitor, and the selected consultant with a written report on the meeting. The selected consultant should provide at least one week notice to the Technical Contact before expecting to meet. The meeting must occur prior to any of the selected consultant's invoices for Milestones E1 through E4 will be reimbursed. In addition, it will be documented in the Remediation Agreement that the Technical Contact's written report will be required documentation to support completion and reimbursement of Milestone D4.
- Where applicable, the bid response should provide specifics on all equipment and vendors to be utilized. Bidders should refer to the equipment specifications included in the February 25, 2019 RAP and the modifications documented in the May 20, 2019 RAPA.
- Where applicable, any routine sampling and/or reporting that is required to be completed as part of operations and maintenance of the system should be included in the appropriate quarterly milestone payments. For example, bi-monthly,

monthly, and/or quarterly influent, mid-fluent, and/or effluent samples that are to be collected to monitor system effectiveness and carbon consumption should be included in the quarterly milestones. The cost for the routine system operational air and/or water samples should be included in each of the relevant quarterly Milestone E1 through E4 (Quarterly Remediation System O&M; Groundwater Monitoring, Sampling, & Reporting; and Discharge Monitoring Reporting During Remediation) payments.

- The operational parameters/specifications for the equipment proposed for the AS/SVE system are included in the PADEP approved RAP and RAPA. Any modifications included in the RAPA are to supersede the specifications in the RAP.
- Bid responses should describe with detail how progress of the remedial strategy will be monitored and how/when adjustments may be made. Bid responses should provide specific parameters to be monitored and data values.
- Bid responses need to provide a clear discussion referencing specific data and available information that supports that the proposed remedial strategy will remediate the contaminants to the selected standards in the proposed timeframe.
- Bid responses need to clearly define both intermediate and end remedial strategy goals that will be used as a guideline to determine if the proposed strategy is successfully remediating the site. The end goals would be used to determine when remediation will be considered complete and successful.
- Quarterly groundwater sampling events proposed to be completed during the implementation of the remedial strategy should be included in Milestone E and conducted in a manner consistent with Milestone B.
- Following the completion of each quarterly groundwater sampling event, the selected consultant should prepare a RAPR for submittal to the PADEP. The RAPR should detail the observations documented during the event, summarize the analytical results, provide applicable summary maps and tables, provide iso-concentration maps for compounds exceeding the SHS, provide hydro-graphs, discuss/detail the remediation efforts, and provide additional scheduling details for upcoming events. A draft of the progress report should be provided to the Solicitor for review and approval prior to submittal to the PADEP. Once the report is approved by the Solicitor, the report can be finalized and submitted to the PADEP.
- The equipment compound and system housing shall be constructed and equipped as a Class I, Division II hazardous and explosion proof area and shall comply with applicable local/state codes and the National Electric Code.
- Buried piping shall be installed with tracer wire to aid in the location of the subsurface lines after the trenches have been filled. In addition, testing of the

buried piping should be conducted and documented to confirm the integrity before the trenches are backfilled.

- System maintenance & monitoring shall include monitoring and routine maintenance as specified by the equipment manufacturer(s) to ensure warranties are not voided and the equipment is kept in good working order. Operational time shall be logged by system instrumentation and reported quarterly in a RAPR. The selected consultant is expected to maintain at least an 85% uptime on the system during each quarter. The bid responses should include discussion of how the system operational time will be tracked (e.g., AS and SVE motor hour meters). System uptime will be defined within the Remediation Agreement. Failure to meet this minimum expectation over two consecutive quarters will constitute, at the Solicitor's sole discretion, a breach of contract and the Solicitor may choose to terminate the contract.
- If there is an unscheduled shutdown of the system, the selected bidder must notify the Solicitor and PAUSTIF within 48 hours after knowledge of the shutdown. If there is a scheduled shutdown of the system that will last greater than seven days, the selected bidder must notify the Solicitor and PAUSTIF at least 30 days prior to the planned system shutdown.
- With regards to carbon change outs, the costs for two liquid and two vapor phase change outs will be included in the base bid cost and should be discussed as such in the bid response. However, all carbon change outs will be completed as needed based on system sampling results. In addition, if more than 2 change outs are required, then any additional change outs will be handled as an optional cost adder and require approval from all parties before proceeding. Additional carbon change outs are to be included in the bid as Optional Cost Adder Milestones F3 (Additional Vapor Phase Carbon Change Out) and G3 (Additional Liquid Phase Carbon Change Out).
- Since the monthly utility charges can be variable, consultants should not include any costs for monthly utility charges (electric or telemetry system related) in their fixed price bid, as all monthly utility charges will be handled separately. Monthly utility bills will be paid based on the actual bill amounts and will be treated as a separate milestone payment in the Remediation Agreement with a cost to be listed in the milestone schedule as Actual Cost. Please note that PAUSTIF will not reimburse any markup added to the monthly utility bills as they are utility related expenses.
- Since the monthly sanitary sewer water discharge charges can be variable, consultants should not include any costs for monthly water discharge charges in their fixed price bid, as all monthly water discharge charges will be handled separately. Monthly water discharge bills will be paid based on the actual bill

amount and will be treated as a separate milestone payment in the Remediation Agreement with a cost to be listed in the milestone schedule as Actual Cost. Please note that PAUSTIF will not reimburse any markup added to the monthly water discharge bill as it is a utility related expense. If system water is discharged via a NPDES permit, and no sanitary sewer charges are incurred, then no sanitary sewer water discharge invoices will be submitted for reimbursement.

Milestone J – Remediation System Performance Evaluation: Provide a Unit Cost to prepare a letter report that provides a detailed evaluation on the performance of the Remediation System after the system has operated for 1 quarter (Milestone J1) and then a second letter report after the system has operated for 4 quarters (Milestone J2). The evaluation will be submitted to the Solicitor/PAUSTIF and should be comprehensive, discuss the data collected, and include both appropriate conclusions and suggestions as well as any recommended operational modifications such as the following:

- System should continue to operate as designed
- System should be modified to enhance performance
- System should be turned off and rebound should be monitored
- An alternate remedial strategy should be developed
- The Site closure goals should be reconsidered

The expectation is that a Professional Engineer will be involved in the system performance evaluation and the preparation of the letter report. If any system modifications are recommended, then the letter report should provide specific details on the proposed modifications. For instance, if the engineer recommends that additional points be installed and added to the system; then the letter report should include specific information on such items as how the points will be constructed, locations of the points, reasons for the change, etc.

Milestone K – Demonstration of Groundwater Attainment: For this Milestone, bidders should include all necessary activities and costs associated with the completion of a groundwater monitoring and sampling attainment program. Bid responses should clearly detail the approach proposed to complete the PADEP's attainment monitoring requirements. Costs for each quarterly event in this Milestone should include the costs to prepare and submit quarterly RAPRs as well. The groundwater monitoring, sampling and reporting efforts completed as part of the demonstration of attainment should be done in a manner consistent with Milestone B. This Milestone includes the preparation of DMRs and submittal of a groundwater attainment events reduction request. The letter should include all necessary information and data to support the request and be submitted to the PADEP, with copies provided to the Solicitor and PAUSTIF. Demonstration of attainment activities completed under this Milestone shall be documented and reported in quarterly RAPRs and the Remedial Action Completion Report.

If additional groundwater attainment monitoring quarterly events (sampling and reporting) beyond the 8 quarterly events included in this Milestone's costs (to be noted as Milestone K1 through K8 in the Remediation Agreement) are needed, then up to 4 additional events will be handled as Optional Cost Adders (Milestones K9 through K12). Optional Cost Adder Milestones K9 through K12 will require approval from all parties before proceeding.

Specifically, bidders should include the following costs in their bid response –

- Milestone K (Milestone K1 through Milestone K8) – Costs to complete the 8 quarterly groundwater attainment events.
- Milestones K9 through K12 (Optional Cost Adder) - Provide a Unit Cost to complete one additional groundwater attainment sampling event and the subsequent RAPR preparation and submittal.

Milestone L – Demonstration of Soil Attainment: For this Milestone, bidders should include all necessary activities and costs associated with the completion of a soil boring program that will demonstrate attainment of the selected soil standards for all COCs for release incident #48572. This bid should not include any work activities or costs related to soil demonstration of attainment sampling for release incident #50143. Bid responses must describe in detail how the soil boring program will be completed and reference relevant data, historic investigations and the location of the UST system in the source area. Specifically, each bid response must discuss, in detail, the soil sampling depth interval, the interpreted depth to the saturation zone, an illustration of the sampling grid location and extent, and how the aforementioned parameters were selected.

Bid responses should note the following:

- If a bidder feels it is appropriate and necessary to complete hole-clearing activities before advancing the borings, the cost should be included in their proposal and costs. If a bidder includes the cost to complete hole-clearing, they should state it in their proposal and discuss why it is appropriate and necessary. As discussed in the RFB, cost is not the only factor when evaluating proposals and other factors are taken into consideration during the review process, including appropriate safety measures.
- Soil samples shall be collected using Encore Samplers (or equivalent) and field-preserved in laboratory-provided glassware with the appropriate preservatives (e.g., methanol or sodium bisulfate) provided by the laboratory in general accordance with USEPA Method 5035 and the PADEP guidance.
- Sampling equipment should be decontaminated (if necessary) prior to sample collection in accordance with generally accepted industry practices.
- In addition, one equipment blank sample (if necessary) will be collected and submitted per day of sampling.

- Soil samples collected during this event will be sent to an accredited laboratory to be analyzed for the above noted COCs, using PADEP required analytical methods.
- Samples should be properly handled under chain of custody documentation protocol and kept cold from sample collection until the samples are relinquished to the accredited laboratory.
- The laboratory to be utilized should be identified in the bid package.
- Demonstration of attainment activities completed under this Milestone shall be documented and reported in the Remedial Action Completion Report.
- **All IDW waste** should be disposed of per the instructions included in the “General SOW Requirements” and “Site Specific Milestones” section of the RFB.

Milestone M – Preparation and PADEP Approval of Remedial Action Completion

Report: Prepare and submit a Remedial Action Completion Report (RACR) that will appropriately present an evaluation of current Site conditions and present significant conclusions and request closure and a relief of liability from the PADEP for all COCs, in all media. The information gathered during the activities completed as part of Milestone A through Milestone L should be incorporated into a comprehensive RACR that will be submitted to the PADEP and will facilitate the objective to complete regulatory requirements governing the RACR and gain PADEP approval for the report. Specifically, the report should summarize the results of the recent investigations, the findings of any previous investigations, a comprehensive Site history, sensitive receptor information, geologic data, results and analysis of historical aquifer testing, discussion on the completed remediation efforts, summary of any predictive modeling efforts completed, risk assessments, and a series of summary tables, appendices, and figures illustrating the information provided in the report.

The report will be completed following the guidelines specified in Pennsylvania Code, Title 25, Chapter 245 and the Land Recycling Program (Act 2) Technical Guidance Manual for a RACR. The RACR shall be sealed by a Professional Geologist registered in the State of Pennsylvania.

The draft RACR and all AutoCAD maps / plans included in the report (e.g., site plan / base map, groundwater elevation maps, dissolved plume maps, soil contaminant distribution maps, etc.) and appendices (e.g., boring logs, tables, waste disposal documentation, aquifer testing and analysis, remedial actions, soil and groundwater attainment sampling results, etc.) shall be submitted electronically (in Adobe PDF format) to the Solicitor and PAUSTIF for review / comment at least 2 weeks prior to finalizing the RACR. Once the selected consultant has addressed comments on the draft, the selected consultant shall finalize and issue the report to the PADEP.

The cost for Milestone M will be reimbursed as follows:

- R1 – RACR PADEP Submittal: 75% of proposed Milestone cost
- R2 – RACR PADEP Approval: 25% of proposed Milestone cost

Milestone N – Site Restoration / Well Abandonment: Following confirmation that cessation of the remedial strategy is appropriate, any remaining equipment should be removed, and the Site restored to as close a condition as possible to those that existed prior to the remediation efforts. The selected consultant will abandon all of the monitoring wells in accordance with Pennsylvania Act 610 and the PADEP Groundwater Monitoring Guidance Manual. Upon completion, a well abandonment report will be prepared and submitted to the DCNR on behalf of the solicitor. Bidders should specify in the bid packages how the wells will be abandoned, and the Site restoration activities included in the specified costs.

Optional Cost Adder Milestones

The following Optional Cost Adder Milestones are to be included in bid responses:

Milestone O – Additional Quarterly Groundwater Monitoring, Sampling, and Reporting Before Remediation Implementation: Provide Unit Costs to complete one additional groundwater sampling event and prepare and submit the subsequent RAPR. Also, provide a Unit Cost for the sampling of each additional monitoring well during a quarterly sampling event. The scope of work for these cost adders should follow Milestone B.

Milestone O1 - The cost provided should be to complete only one (1) groundwater sampling and reporting event with only the selected existing shallow monitoring wells including MW-1 through MW-9, MW-15, OW-1, and OW-2.

Milestone O2 - The cost provided should be to sample one (1) additional monitoring well during a groundwater sampling event. The provided cost would be to cover all labor, equipment, laboratory, waste, etc. This cost would apply to each of the additional monitoring wells that would be sampled during a quarterly groundwater sampling event should multiple additional well samples be required.

Milestone P – Additional Quarter of Remediation System O&M with Quarterly Groundwater Monitoring, Sampling, and Reporting and Discharge Monitoring/Reporting During Remediation: Provide a Unit Cost to complete one additional quarter of System O&M with one quarterly groundwater sampling event and the subsequent RAPR preparation and necessary discharge monitoring and reporting. The scope of work for this cost adder should follow the relevant details of Milestone E.

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 (for funding consideration). PADEP approval may also be required.

List of Attachments

1. Remediation Agreement
2. Bid Cost Spreadsheet
3. Site Information/Historic Documents
 - a. SCR dated January 9, 2018
 - b. PADEP SCR Approval Correspondence dated March 15, 2018
 - c. Remedial Alternatives Analysis Report (Draft) dated August 31, 2018.
 - d. RAP dated February 25, 2019
 - e. RAPR dated March 5, 2019
 - f. PADEP RAP Approval Correspondence dated April 18, 2019
 - g. RAP Addendum dated May 20, 2019
 - h. PADEP RAP Addendum Approval Correspondence dated May 30, 2019