COMPETITIVE BID SOLICITATION
FIXED-PRICE DEFINED SCOPE OF WORK TO COMPLETE SITE CLOSURE ACTIVITIES

Nettle's Auto Service
1415 Lowther Road
Lower Allen Township, Cumberland County, Pennsylvania 17011
PADEP Facility ID # 21-61054; USTIF Claim # 2006-0170(S)

February 17, 2012

The Pennsylvania Underground Storage Tank Indemnification Fund (USTIF) is providing this Request for Bid (RFB) Solicitation, on behalf of the Claimant, Mr. Robert E. Nettles, who hereafter is referred to as the Client or Solicitor, to prepare and submit a fixed price proposal for a defined scope of work (SOW) to complete additional site characterization activities at the Nettle's Auto Service facility (the site).

Corrective action under Chapter 245 is being conducted in response to a confirmed petroleum release at the site in 2006. A Preliminary Site Characterization Report (SCR; dated July 21, 2008) was submitted by United Environmental Services, Inc. (UES) to the Pennsylvania Department of Environmental Protection (PaDEP). In their response letter to UES, dated September 5, 2008, the PaDEP approved the Preliminary SCR with modifications and concurred with UES' conclusion presented in their report that additional delineation of the dissolved-phase plume was necessary to complete site characterization. In January of 2010, UES installed an off-site groundwater monitoring well (MW-5) in an attempt to delineate the dissolved-phase plume downgradient of the site. UES submitted an Additional SCR/Remedial Action Plan (RAP) to the PaDEP (dated September 13, 2010) and, in a response letter dated December 6, 2010, the PaDEP approved the RAP with modifications.

The Solicitor, Mr. Robert Nettles (DBA Nettle's Automotive Service), has an open claim (claim number referenced above) with the USTIF and the corrective action work will be completed under this claim. Reimbursement of Solicitor-approved reasonable and necessary costs up to claim limits for the corrective action work described in this RFB will be provided by the USTIF.

To be considered for selection, **one hard copy of the signed bid package and one electronic copy (one PDF file on a compact disk (CD) included with the hard copy) must be provided directly to the Fund's third party administrator, ICF International (ICF), to the attention of Deb Cassel, Contracts Administrator.** She 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 firms who 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: Deb Cassel. The outside of the shipping package containing the bid response must be clearly marked and labeled with "Bid – Claim # 2006-0170(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 below for submission. Firms mailing bid responses should allow adequate delivery time to ensure timely receipt of their bid package.

The bid response must be received by 3:00 PM, on Tuesday, April 17, 2012. Bids will be opened immediately after the 3:00 PM deadline on the due date. Any bid packages 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 Fund's third party administrator, ICF's office is closed on the bid response due date, the deadline for submission will automatically be extended to the next business day on which the office is open. The Fund's third party administrator, ICF, may notify all firms who attended the mandatory site meeting of an extended due date. The hour for submission of bid responses shall remain the same. Submitted bid responses are subject to Pennsylvania Right-to-Know Law.

The ICF Claims Handler and the Technical Contact will assist[1] the Solicitor in evaluating the competitive bids received; however, it is the Solicitor who will ultimately select the successful bidder with whom it will negotiate a mutually agreeable contract. Bid evaluation will consider, among other factors, estimated total cost, unit costs, schedule, discussion of technical and regulatory approach, qualifications, and contract terms and conditions. The cost will be the most heavily weighted evaluation criteria. The Solicitor (via the Technical Contact) will inform the successful bidder by email. The unsuccessful bidders will be informed by email and by posting the name of the successful bidder on the USTIF's website, following the full execution of the Remediation Agreement by the Solicitor and the successful bidder.

A. SOLICITOR, ICF CLAIMS HANDLER, AND TECHNICAL CONTACT INFORMATION

Solicitor

Mr. Robert E. Nettles
(DBA Nettle's Automotive Service)
1411 Lowther Road
Camp Hill, PA 17011

ICF Claims Handler

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Technical Contact[2]

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NOTE: All questions regarding this RFB Solicitation and the subject site conditions must be directed via e-mail to the Technical Contact identified above with the

[1] This assistance is being provided on behalf of ICF International (ICF) who is the USTIF claims administrator.

[2] Subcontractor to ICF.

understanding that all questions and answers will be provided to all bidders. The email subject line must be "Nettle's 2006-0170(S) – RFB QUESTION". Bidders must neither contact nor discuss this RFB Solicitation with the Solicitor, USTIF, PADEP, or ICF unless approved by the Technical Contact. Bidders may discuss this RFB Solicitation with subcontractors and vendors to the extent required for preparing the bid response. **All questions must be received by close of business on April 10, 2012.**

B. ATTACHMENTS TO THIS RFB SOLICITATION

The following attachments have been included with this RFB to assist in bid preparation:

ATTACHMENT 1: SUPPORTING DATA, REPORTS AND CORRESPONDENCE

Attachment 1a: UST System Documentation and DEP Correspondence
Attachment 1b: 1998 Notification of Reportable Release (dated January 14, 1998)
Attachment 1c: UST Closure Report (UES; dated March 3, 2008)
Attachment 1d: Preliminary Site Characterization Report (UES; dated July 21, 2008)
Attachment 1e: Additional Site Characterization Report/Remedial Action Plan
Attachment 1f: Most Recent Quarterly Remedial Action Progress Reports (RAPRs) (4th Quarter 2010 RAPR and 2nd Quarter 2011 RAPR)
Attachment 1g: Additional Site Data
Attachment 1h: Additional Site Maps
Attachment 1i: Site Map Showing Soil Borings and Soil Vapor Points to be Installed
Attachment 1j: Reports/Documentation Pertaining to Adjacent Ron Moyer Service Center Site:

Remedial Action Completion Report (RACR) (BL Companies Pennsylvania, Inc.; dated July 21, 2009)

Environmental Covenant Waiver Request Letter to PaDEP BL Companies Pennsylvania, Inc.; dated July 23, 2009)

RACR Approval Letter (PaDEP; dated July 28, 2009)

ATTACHMENT 2: SAMPLE REMEDIATION AGREEMENT
ATTACHMENT 3: STANDARDIZED BID COST SPREADSHEET

C. SITE SETTING AND BACKGROUND INFORMATION

The following information summarizes, and is derived from, relevant information provided in previous environmental reports, including the reports attached to this RFB. If there is any conflict between the summary provided herein and the source documents, the bidder should defer to the source documents.

Site Name/Address

Nettle's Automotive Service; 1415 Lowther Road, Lower Allen Township, Cumberland County, Pennsylvania (see Figures 1, Figure 2 and Figure 3 in **Attachment 1d**).

USTIF Eligibility

Following the documented release from the unleaded gasoline UST systems in 2006, the Solicitor filed a claim with the USTIF and eligibility was granted under USTIF Claim No. 2006-0170(S). The Solicitor has selected the SSS as the remedial goal to be pursued to obtain Relief from Liability (RfL) from the PaDEP, and USTIF has agreed to 100% reimbursement of Solicitor-approved reasonable and necessary costs up to claim limits for the corrective action work described in this RFB.

Site Use Description

The site is currently used as an automobile repair facility. The site also operated as a retail petroleum fueling facility until 2002 when the gasoline USTs were emptied. The three gasoline USTs were eventually closed by removal in September of 2006. Details of the 2006 UST closure activities are provided in **Attachment 1c**.

USTs and ASTs on Site

Currently, a registered (Tank Registration Number 004) 1,000-gallon used motor oil UST is the only known UST that currently exists at the site, and this UST remains operational at the site.

Current and Historical Constituents of Concern

The constituents of concern (COCs) at this site, for which a Relief from Liability will be necessary, are the substances on the PaDEP's Old and New Shortlists for unleaded gasoline (benzene, toluene, ethylbenzene, total xylenes, cumene, methyl tert-butyl ether (MTBE), naphthalene, 1,2,4-trimethylbenzene (124-TMB), and 1,3,5-trimethylbenzene (135-TMB)). Based on data obtained from the most recent comprehensive groundwater sampling event conducted on May 11, 2011, the constituents with concentrations greater than the Residential, Used Aquifer (RUA) Medium-Specific Concentrations (MSCs) were benzene, MTBE, 124-TMB and 135-TMB.

Site Description

The site is currently being used as an automobile repair facility. A site plan showing the pertinent features of the site is presented as Figure 2 in **Attachment 1e**. There is a one-story service station building located within the eastern portion of the property that contains two auto repair garages and an office. The majority of the property is paved.

There are both commercial properties and residential properties surrounding the site. The property is bound to the north by Lowther Road and beyond that by a residential property, to the south by Carlisle Road and beyond that by residential properties, to the east by residential properties, and to the west by the Commercial Road/Lowther Road intersection and beyond that by a commercial property currently occupied by Prevail Salon, a hair salon. The property currently occupied by Prevail Salon was previously occupied by Moyer's Service Station, a retail petroleum dispensing facility and automobile repair facility. Both the Nettle's and the Moyer's properties both operated as a retail petroleum dispensing and automobile repair facility since at least the 1970s.
The site and surrounding properties are supplied by public water, public sewer, and overhead electric and telephone.

Site Topography

A USGS 7.5-minute topographic quadrangle map and an aerial photograph of the site are provided in **Attachment 1h**. The site is situated at approximately 390 feet above mean sea level. Topography is primarily flat across the site and there is a slight downward slope from west to east in the area of the site.

Site Geology

Based on information obtained from UES' drilling activities, soils at the site are overlain by asphalt and consist of approximately 17 to 45 feet of dense, orange/brown silty clay. The silty clay is underlain by weathered limestone. Bedrock was not encountered during drilling activities and, so, based on UES' drilling logs, bedrock exists at depths greater than 40 feet below grade (fbg).

A geologic cross section was constructed by UES from data collected from monitoring wells and soil borings and are presented as Figure 7 in **Attachment 1e**. According to existing Pennsylvania state maps, bedrock at the site consists of limestone of the St. Paul Group of Ordovician age. The St. Paul Group consists of magnesium limestone containing numerous layers of chert.

Additional information regarding site geology is provided in UES' Preliminary Site Characterization Report and Additional Site Characterization Report/Remedial Action Plan, included as **Attachments 1d and 1e**, respectively.

Site Hydrogeology

Based on observations made during drilling and water level measurements collected in site monitoring wells MW-1 through MW-3, groundwater at the site exists under unconfined conditions in soil at depths ranging from approximately 22 to 39 fbg. Based on water level measurements collected from monitoring well MW-4 that was only drilled to the base of the backfilled former UST excavation, so-called “perched” water” within the former UST excavation was identified in the Preliminary SCR. The base of the excavation lies about 15 fbg and, thus, lies more than seven feet above the shallowest depth-to-water measurement at the site in any other well.

Based on historical groundwater elevation data collected by UES, groundwater flow direction at the site is generally toward the south/southeast towards the Yellow Breeches Creek, which is located approximately 3,000 feet south of the site. Groundwater elevation contour maps generated from UES’ site characterization and quarterly groundwater monitoring data are provided in **Attachments 1d, 1e and 1f**. Additional groundwater elevation maps were prepared by GSC and are included in **Attachment 1h**.

Based on Groundwater Science Corporation's (GSC's) "Groundwater Elevation Contour Map - April 6, 2010" (Attachment 1h), the hydraulic gradient at the site ranges from approximately 0.05 to 0.12 feet per foot. Based on slug testing conducted on wells MW-2 and MW-3 by UES in May of 2010, the average hydraulic conductivity at the site is 5.16×10^{-3} feet per minute.

Additional information regarding site hydrogeology is provided in UES’ Preliminary Site Characterization Report and Additional Site Characterization Report/Remedial Action Plan, included as **Attachments 1d and 1e**, respectively.

Nature of Confirmed Releases and Subsequent Activities

The following information is based on documents submitted to the PaDEP, some of which are included as attachments to this RFB. The information associated with activities not conducted by GSC has not been independently verified by ICF or the Technical Contact.

1998 UST Upgrade Activities and Confirmed Release

On January 14, 1998, as part of underground storage tank (UST) system upgrades, the dispenser piping was replaced with double-wall flexible piping by Keystone Petroleum. During the upgrade activities, localized soil contamination was encountered beneath one of the dispensers and between ten and fourteen tons of soil was excavated as an interim remedial action (IRA). Soil from the bottom of the excavation was sampled and analyzed for unleaded gasoline substances. Based on the laboratory analytical results, all of the soil samples collected during the 1998 UST upgrades contained concentrations of target

analytes below the Residential, Used Aquifer (RUA) Medium-Specific Concentrations (MSCs). Groundwater was not encountered during the excavation activities. No claim was filed with the USTIF due to the minimal extent of the contamination and which resulted in cleanup costs less than the claim deductible. A Notification of Reportable Release was submitted by Keystone to the PaDEP to address the localized contamination encountered during the UST upgrade activities (**Attachment 1b)**. Reportedly, no site characterization work was subsequently performed as a result of the reportable release because all of the soil contamination was localized within three feet of the UST system and subsequently removed and disposed of off-site.

Following the 1998 UST upgrade activities, the UST system remained in use until 2002 when retail petroleum distribution ceased at the site. The USTs were subsequently registered with the PaDEP as "temporarily out of service" (TOS) until the USTs were closed by removal in 2006, as detailed below.

2006 UST Closure and Confirmed Release

On September 19, 2006, three 6,000-gallon unleaded gasoline USTs (Tank Registration Numbers 001, 002, and 003), six dispensers and associated piping were closed by removal at the site by S&W Petroleum. UES was on-site during the closure activities to provide environmental oversight and collect confirmatory samples following removal of the UST systems. During these activities, contaminated soil was not encountered but groundwater was encountered within the UST excavation during the UST removal activities. Two soil samples were collected from two sidewalls within the UST excavation at the soil/groundwater interface, and one soil sample was collected from beneath each of the six dispensers. The soil samples were analyzed for the substances listed on the PADEP unleaded gasoline short list. Laboratory analytical results showed that concentrations of target analytes in all of the soil samples were below the RUA MSCs. Two groundwater samples were collected from the open excavation and were also analyzed for the substances listed on the PADEP unleaded gasoline short list. Dissolved-phase benzene, MTBE, and toluene were detected in the two groundwater samples at concentrations greater than the RUA MSCs, therefore, constituting extensive contamination at the site.

On October 9, 2006, UES notified PADEP's Southcentral Regional Office of the release of unleaded gasoline. UES prepared a UST Closure Report (**Attachment 1c**) and submitted the report to the PaDEP on March 3, 2008.

<u>Chapter 245 Corrective Action Activities</u>

On April 30, 2007 UES initiated site characterization activities at the site with the installation of three four-inch diameter groundwater monitoring wells (MW-1, MW-2, and MW-3). The recorded depths to water in the three monitoring wells ranged from 26.48 feet below top of casing (fbtoc) to 33.46 fbtoc. Concentrations

of benzene, MTBE, toluene, ethylbenzene, total xylenes, naphthalene, 124-TMB, and 135-TMB were detected in groundwater samples above the RUA MSCs. UES also assessed the potential concern for volatilization to indoor air at the site by comparing the site characterization groundwater sampling results to the groundwater screening values provided in the PaDEP's Vapor Intrusion Technical Guidance. No soil samples were collected as part of site characterization activities and so the only soil samples collected at the site to date have been the soil samples collected during the UST closure activities, as described above. [As noted below, UES attempted to demonstrate attainment of the SHS for soil in their Preliminary Site Characterization Report (SCR) using these closure samples, however, the PaDEP stated that closure samples could not be used to demonstrate soil attainment when there is extensive contamination].

A Preliminary SCR, describing the above activities was submitted to the PADEP in July 2008. In addition to other conclusions, UES included the following conclusions in the Preliminary SCR:

> *"Subsurface soils were impacted by the release of unleaded gasoline from a leaking dispenser. The contamination was discovered on January 14, 1998 and approximately 10 tons of petroleum impacted soil were excavation."*
>
> *"On September 19, 2006, United Environmental oversaw the removal of three single wall fiberglass underground storage tanks and the associated double wall piping and dispensers. Ten soil samples were collected during the tank system removal activities and analyzed for unleaded gasoline parameters. Laboratory analytical results indicated the soil was not impacted."*

In the Preliminary SCR, UES recommended the installation of additional monitoring wells at the site to delineate the groundwater contamination, and also recommended slug testing and/or pump testing to assess aquifer characteristics and to conduct a fate and transport analysis for the site.

In correspondence dated September 5, 2008 the PADEP approved the Preliminary SCR with the following modifications:

> *"Soil attainment sampling consistent with the Act 2 regulation will be needed to demonstrate attainment with the Statewide Health Standard. Closure Report sampling cannot be used to demonstrate attainment of the Statewide Health Standard when extensive contamination is detected at a site."*
>
> *"The groundwater characterization should be expanded to fully delineate the extent of the groundwater contaminant plume."*

> *"The Site Characterization Report indicates that levels of contamination remain on-site, which exceed the Department's Statewide Health Standard for soil and/or groundwater. Please be aware that 25 Pa. Code Section 245.311 requires the submission of a Remedial Action Plan within 45 days."*

In January of 2010, UES installed monitoring well MW-4 in the UST excavation (to evaluate "perched" groundwater). In March of 2010, UES installed off-site monitoring well MW-5 to the southeast of the site and beyond Carlisle Road. On May 13, 2010, UES performed slug testing at the site, using monitoring wells MW-2 and MW-4. No additional soil characterization has been conducted by UES since the September 2006 UST closure sampling.

In September of 2010, UES submitted an Additional SCR/Remedial Action Plan (RAP) to the PADEP. The Additional SCR/RAP included details of the additional monitoring well installation, the slug testing and the fate and transport analysis for the site. The RAP specified the SSS as the general remedial goal for the site but did not specifically state whether the SSS would be pursued for soil and/or groundwater.

In correspondence dated December 6, 2010, the PADEP approved the Additional SCR/RAP with the Preliminary SCR with the following modifications:

> *"The effective porosity utilized in the Quick Domenico model is higher they {sic} typically quoted for silty clay. Effective porosity values between 5 and 15% are more typically seen for silty clay material. Please provide the appropriate reference for the effective porosity value used for silty clay and justify its use based upon site conditions, or modify the effective porosity value used accordingly."*
>
> *"The practice of using the groundwater elevations obtained from monitoring well MW#4 in the construction of the groundwater contour maps and the determination of groundwater flow direction is not appropriate. The reports indicates that monitoring well MW#4 was constructed in the former tank field and the water encountered is from a perched water system and does not represent water table conditions. A groundwater contour map should be constructed without the groundwater elevation data from monitoring well MW#4.*
>
> *"Monitoring well MW#5 does not appear to be directly downgradient of the contaminant plume and is therefore not appropriate for use as a calibration well."*
>
> *"The regression analysis performed is insufficient to demonstrate that stable or decreasing concentrations exist at the site. Several of the regression plots indicate that increasing trends exist."*

> *"The closure guidance soil sampling that was performed at the site is insufficient to demonstrate attainment of the statewide health standard for soil as the contamination was not localized."*
>
> *"Insufficient information has been provided to demonstrate the elimination of the groundwater pathway."*

To date, six groundwater monitoring events have been conducted by UES (May 8, 2007; April 24, 2008; April 6, 2010; August 25, 2010; December 13, 2010; May 10, 2011). UES did not conduct quarterly groundwater sampling during the First Quarter of 2011). Dissolved-phase benzene, 124-TMB, and 135-TMB concentration contour maps for the April 6, 2010 and the December 13, 2010 groundwater sampling events were prepared by GSC and are included in **Attachment 1h**.

Based on the analytical results from the most recent groundwater sampling event conducted on May 11, 2011 (**Attachment 1g**), dissolved-phase benzene concentrations were greater than the RUA MSC in well MW-1, and dissolved-phase benzene, 124-TMB and 135-TMB concentrations were greater than the RUA MSCs in well MW-3. MTBE concentrations in well MW-3 were reported as less than the laboratory detection limit of 100 micrograms per liter (ug/l), however, this detection limit is higher than the RUA MSC of 20 ug/l for MTBE. Groundwater concentrations in well MW-4, which represents water from within the tank excavation, was less than the RUA MSCs for all target unleaded gasoline constituents. Unleaded gasoline constituents have not been detected at concentrations greater than laboratory detection limits and/or the RUA MSCs in off-site monitoring well MW-5, located to the southeast of the site.

D. OBJECTIVE / SCOPE OF WORK

This RFB Solicitation is a defined scope of work (SOW) type where a specific SOW is presented to the bidders who prepare their bids on the basis of that scope. In the case of this RFB solicitation, the defined SOW has been reviewed and commented on by the PaDEP and is designed to complete groundwater plume delineation, complete soil delineation at the site, complete a soil vapor assessment for the site, complete soil attainment sampling at the site, and obtain a RfL for the site by demonstrating attainment of the Statewide Health Standard (SHS) for soil and the SSS for groundwater by demonstrating that no complete exposure pathways exist.

The SOW has been prepared using the guidelines of Pennsylvania Code Title 25, Chapter 245 (The Storage Tank and Spill Prevention Program) and Chapter 250 (The Land Recycling Program), as applicable. There are several key elements that must be completed in order for the approach outlined in this RFB to be successful. The critical elements and general sequence of events for completion of the work specified in this RFB are:

- Obtain off-site access;
- Completion of supplemental site characterization activities including installation and initial sampling of additional off-site groundwater monitoring wells, soil boring installation and soil sampling, installation of on-site soil vapor monitoring points and soil vapor sampling, and preparation and submittal of a Supplemental Site Characterization Report (SSCR) that includes the data obtained from the additional site characterization activities;
- Continued quarterly groundwater sampling and submittal of quarterly Remedial Action Progress Reports (RAPRs);
- Soil attainment sampling for the site (optional as explained in this SOW);
- Preparation and submittal of a Remedial Action Completion Report (RACR) that includes all pertinent site data including the revised New Quick Domenico (NQD) model and an updated fate and transport analysis;
- Preparation and submittal of a letter to the PaDEP requesting to waive the need for environmental covenants on select off-site properties, and preparation and filing of an environmental covenant for the site property.

The submitted bid shall follow the milestone format outlined below. Bids shall include a detailed description of the anticipated costs for each task including labor rates, time requirements and equipment costs. A Standardized Bid Cost Summary Spreadsheet, to be completed and attached to the bid, is included as **Attachment 2**. The fixed-price cost for each of the tasks detailed below shall include all costs for preparation of any pertinent project guidance documents in accordance with Chapter 245 (e.g., health and safety plan, field sampling/analysis plan and quality assurance/quality control plan, etc.), for utility clearance (both coordination of PA One-Call and conducting physical utility clearance using soft dig techniques if deemed necessary (particularly at the gas station drilling locations), and project management, scheduling and project coordination time deemed necessary to complete each task.

Milestone A:	Obtain Off-Site Access to PennDOT and Lower Allen Township Right-of-Ways to Install and Sample Three New Soil Groundwater Monitoring Wells
Milestone B:	Supplemental Site Characterization Activities
Milestone B1:	Installation, Surveying, Development, and Sampling (One Initial Characterization Round) of Three Off-Site Soil Groundwater Monitoring Wells (MW-6, MW-7 and MW-8)
Milestone B2:	Installation of Soil Borings and Soil Characterization Sampling; Installation and Sampling of On-site Soil Vapor Monitoring Points
Milestone B3:	Preparation and Submittal of SSCR
Milestone C1-C8:	Quarterly Comprehensive Gauging and Sampling of Eight (8) Groundwater Monitoring Wells (MW-1 through MW-8) (to be initiated following completion of Milestone B1)

Milestone D:	Revised Groundwater Modeling and Updated Fate and Transport Analysis
Milestone D1:	Revised Groundwater Modeling
Milestone D2:	Updated Fate and Transport Analysis
Milestone E:	Soil Attainment Sampling (if applicable)
Milestone F:	Preparation and Submittal of RACR
Milestone G:	Preparation and Submittal of Environmental Covenant Waiver Request Letter to PaDEP; Preparation and Filing of Environmental Covenant for Site Property

MILESTONE A – OBTAIN OFF-SITE ACCESS

Prior to installing the off-site groundwater monitoring wells, the selected bidder shall obtain off-site access from PennDOT in the form of a Right-of-Entry (ROE) agreement to install monitoring wells MW-6 and MW-7 in the Right-of-Way (ROW) along Carlisle Road (State Route 2018). Additionally, the selected bidder shall obtain off-site access from Lower Allen Township in the form of a ROE agreement to install monitoring well MW-8 along Lowther Road. The Technical Contact has not discussed these proposed drilling locations with PennDOT or Lower Allen Township, nor has the Technical Contact notified or discussed these proposed drilling locations with the owners of the properties in front of which these wells will be drilled. However, for the purposes of this bid, bidders should assume that off-site access to conduct the necessary site characterization activities will be granted without extended negotiation with PennDOT or Lower Allen Township. The PaDEP will be involved to the extent necessary to ensure access is granted at these properties and any other location where that location is deemed critical to gain an understanding of the relationship between the Solicitor's release and adjacent properties.

The selected bidder shall contact PennDOT and Lower Allen Township and discuss the details and schedule of the activities to be conducted with the respective ROWs and execute ROE agreements, as necessary, at a fixed-price. Upon execution of the ROE agreements, the selected bidder shall provide adequate notification to the property owners in front of which drilling will occur and who may be affected by the drilling activities.

MILESTONE B – SUPPLEMENTAL SITE CHARACTERIZATION ACTIVITIES

<u>Milestone B1: Well Installation, Surveying, Development, and Initial Sampling</u>

After the above-mentioned PennDOT and Township ROE agreements have been fully executed, the selected bidder shall install off-site monitoring wells MW-6, MW-7 and MW-8, and on-site well MW-9, the proposed locations of which are shown on the groundwater concentration contour maps included in **Attachment 1h**. These wells will serve to better delineate the current dissolved-phase plume(s) on and off-

site. For the purpose of this RFB, bidders shall assume that the soil monitoring wells will be installed with the following characteristics:

a. Continuous soil/overburden characterization shall be conducted at five-foot intervals and a soil boring log shall be prepared using an appropriate soil classification system (e.g., Modified Burmister or USCS);

b. Soil wells shall be constructed of two-inch diameter, threaded, flush-joint, schedule 40 PVC riser and 0.010- or 0.020-inch slot width well screen;

c. The soil well shall be drilled and installed into the soil saturated zone to the top of competent bedrock[3];

d. The soil well screen shall straddle the unsaturated/saturated zone interface;

e. The soil well screen shall be entirely in soil;

f. A sand filter pack of appropriate grain size shall be placed in the annulus from the bottom of the borehole to not more than two feet above the screened interval and hydrated bentonite chips shall be used to seal the annulus (between the PVC and the borehole wall) above the sand pack up to grade;

g. The soil groundwater monitoring well shall be completed at the surface with a securable manhole, set in concrete flush with the ground surface. A locking, pressure fit, watertight cap shall be used to prevent the infiltration of surface runoff and rainwater and to restrict access by unauthorized individuals; and,

h. A monitoring well construction log shall be prepared for the well.

Following the installation of the above-referenced wells, the selected bidder shall develop the newly installed wells (MW-6 through MW-9) <u>and redevelop wells MW-1 through MW-5</u>. There is no indication in UES' Preliminary SCR and Additional SCR that the existing wells at the site were ever adequately developed by removing at least ten well volumes during previous development of these wells. Therefore, the purpose of redeveloping wells MW-1 through MW-5 is to ensure that these wells are adequately developed.

All monitoring wells shall be developed in accordance with standard industry practices and applicable guidance. At least ten well volumes shall be removed from each well during development, assuming the yield is sufficient. Bidders should assume that wells will evacuate and recovery is slow because the soil at the site is primarily silty clay and some wells are partially screened in weathered bedrock. Therefore, for cost estimation purposes, bidders shall assume that wells will need to recover at least twenty-four hours and an additional mobilization to the site will be necessary in order to remove at least ten well volumes within each well in order to complete well development activities.

[3] For cost estimation purposes, bidders shall assume that each well shall be installed by hollow stem auger drill rig to a depth of 40 feet below grade, which is the presumed maximum depth to competent bedrock and auger refusal.

Initial gauging and sampling of the newly installed monitoring wells (MW-6 through MW-9) shall be conducted at least two weeks following well development. Water level measurements shall be taken from each of the new wells. Depth-to-water measurements shall be completed using a probe capable of distinguishing water and/or the presence or absence of SPL to the nearest 0.01 feet. The depth to water shall be recorded and then used to determine the water level elevations within each new well. The casing elevation of each of the new monitoring wells shall be surveyed within +/- 0.01 foot relative to an arbitrary benchmark already established at the site. The benchmark elevation shall be obtained by referencing the approximate ground surface elevation of the property or from an available benchmark from the USGS topographic map or benchmark elevation marker located at the site if one exists. Please note that a professional survey by a Pennsylvania-licensed Professional Land Surveyor is not required to survey the wells. Water level depth data (measured from the top of casing) shall then be subtracted from respective casing elevations to determine water level elevations relative to the arbitrary benchmark such that groundwater elevations within each well can be determined. Bidders should assume that no separate-phase liquid (SPL) will be encountered in site monitoring wells.

All wells shall be purged following appropriate protocols and in accordance with standard industry practices. Groundwater sampling and analysis shall be conducted in accordance with generally accepted practices as outlined in the PaDEP's Groundwater Monitoring Guidance Manual, dated December 1, 2001 (Document # 383-3000-001). All samples shall be analyzed in accordance with the PaDEP's Old and New Shortlists of unleaded gasoline parameters using the approved laboratory methods capable of reporting to the PaDEP-established Practical Quantitation Limits.

All development water and purge water shall be handled and disposed of in accordance with applicable regulations or guidance.

<u>Milestone B2: Installation of Soil Borings and Soil Characterization Sampling; Installation of Soil Vapor Monitoring Points and Soil Vapor Sampling</u>

Soil characterization is necessary in order to adequately characterize and delineate soil impacts at the site, particularly beneath the former UST excavation to determine if a continuing source remains as a result of the 2006 reportable release. Because preferential pathways exist at the site in the form of underground utilities (sewer and water), the soil vapor screening process using the Screening Values specified in the PaDEP's Vapor Intrusion Technical Guidance Manual (January 24, 2004) should not be used. Soil vapor point installation and subsequent soil vapor sampling is necessary to adequately assess the potential for soil vapor intrusion into on- and off-site occupied buildings. The locations of the soil borings and soil vapor points to be installed at the site are shown on the site map included as **Attachment 1i**.

For soil characterization, a total of nine (9) soil borings shall be drilled at the site (borings SB-101 through SB-109; **Attachment 1i**). These borings are in addition to the four borings drilled as part of the installation of wells MW-6 through MW-9 as described under Milestone B1. All soil borings shall be drilled with Geoprobe® equipment capable of advancing both hollow-stem augers and GeoProbe® MacroCore® rods. For all borings, soil shall be characterized using an appropriate soil classification system (e.g., Modified Burmister or USCS) and a soil boring log shall be prepared.

For soil borings SB-101 through SB-105, soil shall be characterized and screened at two foot intervals starting from the native soil located immediately beneath the former UST excavation backfill (the bottom of which is approximately 12-15 fbg) to the depth of saturated soil or until PID measurements have confirmed that vertical delineation is complete within these boreholes. For soil borings SB-101 through SB-105, a sample of native soil from just below the excavation backfill, and either at the water table interface or just above the top of bedrock, whichever is shallower.

For soil borings SB-106 through SB-109, soil shall be characterized and screened using a photoionization detector (PID) at two-foot intervals from the ground surface to the bottom of the boring. For soil borings SB-106 through SB-109, a sample of native soil shall be collected from the depth interval that represents the highest PID measurement within the boring (if applicable), and a sample shall be collected at the unsaturated interval just above the water table interface (if this is a different interval than the interval with the highest PID measurement), and one sample shall be collected from the depth interval that represents the bottom of the boring.

All soil samples shall be collected in accordance with applicable PaDEP regulations and guidance and analyzed for PaDEP's Old and New Shortlists of unleaded gasoline constituents.

In order to further characterize the vapor phase and obtain the data necessary to evaluate remedial options and exposure pathways, a total of five 5) soil vapor monitoring points (SVP-1 through SVP-5) shall be installed at the locations shown on **Attachment 1i.** For SVP-4, a soil boring shall be drilled (using either 2"- or 3"-diameter GeoProbe® rods) to a total depth of 5.5 fbg. The boring shall be backfilled with #0 sand from 5.5 to 5.0 fbg. A soil vapor collection point with a screened interval not to exceed six inches (from 5.0 to 4.5 fbg) shall be installed, to be representative of soil vapor concentrations beneath the on-site building slab. For SVP-1, SVP-2, SVP-3, and SVP-5, a soil boring shall be drilled (using either 2"- or 3"-diameter GeoProbe® rods) to a total depth of 8.5 fbg. These soil borings shall be backfilled with #0 sand from 8.5 to 8.0 fbg. A soil vapor collection point with a screened interval not to exceed six inches (from 8.0 to 7.5 fbg) shall be installed, to be more representative of soil vapor concentrations that may exist beneath off-site basement slabs.

Construction logs for all SVPs shall be prepared and included in the SSCR. One soil vapor sample shall be collected from each soil vapor monitoring point during each of two sampling events. One sampling event shall be conducted during the spring and one sampling event shall be conducted during the winter in order to assess seasonal variability. Soil vapor point installation, sampling and analyses shall be conducted in accordance with the PaDEP's *Technical Guidance Manual - Section IV.A.4. Vapor Intrusion into Buildings from Groundwater and Soil under Act 2 Statewide Health Standard (January 24, 2004).*

The vapor samples shall be analyzed for the PaDEP's Old and New Shortlists of unleaded gasoline constituents (including benzene, toluene, ethylbenzene, total xylenes, cumene, naphthalene, MTBE, 124-TMB and 135-TMB) using EPA Method TO-15. The above-mentioned PaDEP guidance shall be used to assist in evaluating the soil vapor sample results. The guidance specifies that soil vapor shall be compared to 100 times the Residential Indoor Air Medium-Specific Concentrations (MSCs) to account for attenuation effects.

<u>Milestone B3: Preparation and Submittal of Combined SSCR/Revised RAP (RRAP)</u>

The selected bidder shall prepare a Combined SSCR/RRAP in accordance with 25 Pa Code §245.310 and §245.311. The selected bidder shall prepare the Combined SSCR/RRAP in draft form for review and comment by the Solicitor and the USTIF. The bidders' schedules shall provide two weeks for this review. The selected bidder shall address all of the comments received by the Solicitor and the USTIF before submission to the PaDEP.

The selected bidder shall prepare a Combined SSCR/RRAP that documents and discusses the data obtained and the conclusions drawn from the completion of Tasks A through B2. Tables, figures, and other attachments that support the text shall include the following:

- Updated historical groundwater elevation data;
- Updated historical groundwater analytical data;
- Soil analytical data;
- Soil vapor analytical data;
- A USGS Quadrangle Map showing site location;
- Site map (showing site boundaries and pertinent site features) (AutoCAD files will be provided);
- Monitoring well, soil boring and soil vapor point location map (showing existing and new locations);
- Groundwater elevation contour map (for the comprehensive sampling round);
- Groundwater concentration contour maps for all constituents found to be above the RUA MSCs in any sample (for the comprehensive sampling round);
- Soil concentrations posting map;
- Soil vapor concentrations posting map;

- Laboratory analytical reports for soil, soil vapor and groundwater with supporting chains of custody and field sampling documentation;
- Soil boring logs, soil vapor monitoring point construction logs, and construction logs for new groundwater monitoring wells; and,
- RRAP as necessary to address soil (e.g., either all soil samples < MSCs or one or more soil samples > MSCs and attainment sampling is required to meet SHS).

MILESTONE C1-C8 – QUARTERLY COMPREHENSIVE GAUGING AND SAMPLING AND PREPARATION OF QUARTERLY RAPRS

The purpose of conducting eight (8) comprehensive quarterly groundwater monitoring events is to provide an adequate fate and transport analysis that supports the attainment of the SSS by showing, through statistical analyses, that the dissolved-phase plume is stable or shrinking.

At least two weeks but not more than eight weeks following the initial sampling of newly installed wells MW-6 through MW-9 covered under Milestone B, the selected bidder shall conduct the first of eight quarterly comprehensive groundwater monitoring event. The results from the sampling of wells MW-6 through MW-9 during this initial comprehensive quarterly groundwater monitoring event will also serve as confirmatory groundwater results for wells MW-6 through MW-9, as required under Chapter 245 as part of the site characterization, and will be presented in the SSCR along with the results for the other wells sampled during the initial quarterly sampling event. As a result, a separate RAPR for the initial quarterly sampling event will not be necessary, and the cost for evaluation and presentation of this initial quarterly data shall be included in the bidders' fixed-price cost for preparation and submittal of the SSCR under Milestone B4. Thus, bidders shall provide a fixed price cost under this milestone for eight quarterly sampling events and preparation of seven quarterly RAPRs.

Water level measurements, purging, sampling and analyses shall be conducted in the same manner as described for Task B2. The depth to water data collected during this comprehensive groundwater monitoring round shall be used to determine water level elevations such that groundwater flow direction can be determined and used to create groundwater elevation contour maps for the site. Groundwater concentration contour maps for all constituents that exceed the applicable RUA MSCs shall be prepared using the data from the quarterly sampling round and these maps shall be included in each RAPR subsequent to the SSCR/RRAP.

MILESTONE D - REVISED GROUNDWATER FATE AND TRANSPORT MODELING AND UPDATED FATE AND TRANSPORT TREND ANALYSIS

Milestone D1: Revised Groundwater Fate and Transport Modeling

After the additional groundwater monitoring wells have been installed (Task B1 of Milestone B) and the eight quarterly groundwater sampling events have been conducted (Milestone C), and if any of the on- or off-site wells contain detectable concentrations of one or more dissolved-phase constituents above the respective RUA MSCs, a quantitative groundwater contaminant model shall be developed to calibrate to current conditions and predict future contaminant distribution. **Note: This task shall not be completed if the detected concentrations of the dissolved-phase constituents do not exceed the RUA MSCs. The successful bidder will only be paid for tasks actually required and completed.**

The revised groundwater model shall address the comments included in the PaDEP's Additional SCR/RAP approval letter dated December 6, 2010 (see Page 9 of this RFB). Prior to implementing this task, the selected consultant shall contact the PaDEP project officer for his/her input on the proposed input parameters to be used in the groundwater model and to confirm the type of model to be used. Use of the PaDEP's NQD fate and transport model appears to be appropriate for this site since all wells are screened primarily within unconsolidated native soils. The PaDEP approved the use of the NQD model in the Additional SCR/RAP. Therefore, for cost comparison purposes, bidders shall assume that the PaDEP will allow the use of the NQD model for the revised modeling effort. Should the PaDEP subsequently disagree, this new requirement would constitute a "new condition" under the Remediation Agreement.

The fixed-price cost for this task shall include the development of a calibrated NQD model utilizing the groundwater data collected from the eighth quarterly groundwater sampling event conducted under Milestone C. Each bidder shall describe their approach at developing the fate and transport model.

Environmental data currently available for the site suggest that surface water modeling applications such as SWLOAD5B and PENTOXSD are probably not necessary to assess potential impacts to downgradient surface water. Should additional site characterization data indicate contaminant loading to surface water should be evaluated, such modeling would be subject to the "New Conditions" provisions of the Remediation Agreement.

Milestone D2: Updated Fate and Transport Trend Analysis

After the additional groundwater monitoring wells have been installed (Task B1 of Milestone B) and the eight quarterly groundwater sampling events have been conducted (Milestone C), the successful bidder shall also perform for the site a fate and transport analysis that consists of an evaluation of the existing site groundwater

data for spatial and temporal trends. A summary of the updated fate and transport analysis shall show that the dissolved-phase plume(s), following the eighth quarterly groundwater sampling event conducted under Milestone C, are stable or shrinking with time. The updated fate and transport trend analysis shall include the most recent groundwater data collected under Milestone C using an appropriate statistical test such as the non-parametric Mann-Kendall trend test (discussed on Page IV-60 in the PaDEP's Technical Guidance Manual) and an appropriate statistical software program such as WQ Stat Plus (Version 1.56). The successful bidder shall prepare output data from the software program that consists of time-series graphs for each data set with the Mann-Kendall test statistic and a table listing the critical test statistic and the trend for each of four confidence levels (i.e., 80%, 90%, 95% and 99%), as well as the Sen's slope estimator on the data which yields the slope of each trend line.

Note: The cost for documenting the fate and transport modeling and updated trend analysis effort in the RACR should NOT be included in the fixed-price cost for the tasks under Milestone C. The cost for documenting the fate and transport modeling and updated trend analysis effort should be included in the fixed-price cost for preparation of the RACR under Milestone F.

MILESTONE E – SOIL ATTAINMENT SAMPLING (IF APPLICABLE)

In the event that it cannot be demonstrated that soil is not a concern at the site, by showing that all soil characterization samples collected as part of Task B2 under Milestone B contained target analyte concentrations less than applicable RUA MSCs, soil attainment sampling/demonstration shall be conducted to address the 1998 release (in the area of the former dispenser) and the 2006 release (in the area of the former USTs). The bidder’s proposed soil attainment demonstration for these areas shall include the estimated volume of soil for each area for which the RUA SHS is to be demonstrated, along with a description of the general approach to selecting soil sampling locations. For the purpose of this bid, bidders should assume that a total of eight soil attainment samples will be collected in the area of the 1998 release and a total of twelve (12) soil attainment samples will be collected in the area of the 2006 release using the systematic random sampling approach described in the PaDEP's Technical Guidance Manual.

All soil attainment samples shall be analyzed for the Old and New PaDEP Shortlists of unleaded gasoline parameters.

MILESTONE F – PREPARATION AND SUBMITTAL OF RACR

When the selected bidder is convinced that soil is not a concern at the site or attainment of the SHS for soil has been demonstrated, and attainment of the SSS for groundwater for this site has been met, a RACR shall be prepared and submitted to the PaDEP in accordance with 25 Pa Code 245.313. The RACR must include all drafts of the environmental covenants and environmental covenant waiver request

letters necessary in order to obtain RfL for the site. Details of the environmental covenant(s) and environmental covenant waiver requests letters that will be submitted to the PaDEP and filed with the Cumberland County Recorder of Deeds, as specified below under Milestone F, shall also be described and provided in the RACR. Details of the environmental covenant(s) and environmental covenant waiver request letters to be submitted with the RACR should be discussed and agreed upon with the PaDEP prior to submitting the draft covenant(s) with the RACR to increase the likelihood of RACR approval. In addition to the documentation previously mentioned, the RACR shall also include all pertinent site data, all input and output data/documentation from the NQD model, all input and output data and documentation from the fate and transport trend analysis, as well as any other documentation necessary to make the RACR sufficiently comprehensive to permit the PaDEP to review and approve the RACR and grant Relief from Liability to the Solicitor and the property owner.

There may be post-remedial care items in the RACR that are not possible to anticipate at this time. Any post-remedial care activities are beyond the scope of this RFB.

MILESTONE G – PREPARATION AND SUBMITTAL OF ENVIRONMENTAL COVENANT WAIVER REQUEST LETTER TO PADEP; PREPARATION AND FILING OF ENVIRONMENTAL COVENANT FOR SITE PROPERTY

Groundwater on- and off-site currently exceeds the Residential, Used Aquifer Medium-Specific Concentrations (MSCs). Preparation and filing of environmental covenants may be necessary for the site, and environmental covenant waivers may be necessary for off-site properties where concentrations exceed the RUS MSCs at the time of the RACR submittal and institutional controls are implemented to attain the SSS. All environmental covenants must be prepared and filed in accordance with the Uniform Environmental Covenants Act (UECA). The bidder would be responsible for determining which affected properties would require an environmental covenant based on contaminant distribution at the time of RACR submittal and for which affected properties an environmental covenant can be waived by the PaDEP (e.g., the highway, off-site residential property). Depending on on- and off-site conditions at the time of the RACR submittal, and on the method by which RfL is ultimately achieved, a environmental covenant may have to be filed for the site property and environmental covenant waivers may have to be requested for some off-site properties.

Based on information provided in the RACR for the adjacent Ron Moyer Service Center site (**Attachment 1j**), the PaDEP has granted waivers (also included in **Attachment 1j**) for nearby off-site properties that were shown to be potentially affected by the release at the former Ron Moyer Service Center site. The selected bidder would be responsible for preparing, and submitting to the PaDEP for approval, a letter requesting waivers of an environmental covenant for any off-site properties, based on plume delineation and the revised QD model at the time of

RACR submittal, that have the potential for being impacted by the remaining impacts at the site. This request letter would be similar to the letter submitted by BL Companies, the consultant for the adjacent former Ron Moyer Service Center site, for which RfL was granted under the SSS (**see Attachment 1j**).

The selected bidder would also be responsible for assisting the site property owner with preparation and filing of the appropriate environmental covenant for the site property within 30 days of the RACR approval date. The Solicitor, Mr. Robert Nettles, has agreed to file an environmental covenant for the site property.

Bidders shall assume, for the purposes of this bid, that the only property that would be required to have an environmental covenant placed on it would be the site property, and that waivers would have to be requested and granted by the PaDEP for applicable roadways as well as any downgradient off-site properties that were shown, by the site characterization and the revised QD modeling performed as part of Milestone B, to be potentially impacted above the RUA MSCs as a result of the release(s) at the site. According to the Lower Allen Township Manager, there is not a municipal "Must Connect" Ordinance in effect for the site and surrounding area and the installation of private wells for drinking or agricultural purposes is not prohibited. Therefore, environmental covenants would need to address any future use scenarios that could create a complete exposure pathway from impacted groundwater in the future. The environmental covenant for the site property, if still necessary at the time of the RACR submittal, would include an activity and use limitation for groundwater that would prohibit the use of groundwater beneath the property for potable or agricultural purposes.

ADDITIONAL REQUIREMENTS

In addition to the specific tasks specified above, the selected consultant shall also:

- Complete necessary, reasonable, and appropriate project planning and management activities until the SOW specified in the executed Remediation Agreement has been completed. Such activities would be expected to include client communications/ updates, meetings, record keeping, subcontracting, personnel and subcontractor management, quality assurance/quality control, scheduling, and other activities. Project planning and management activities will also include preparing and implementing any plans required by regulations or that may be necessary and appropriate to complete the SOW. This may include health and safety plans, waste management plans, field sampling and analysis plans, and/or access agreements. Project management costs shall be included in the fixed prices quoted for Milestones A through E, as appropriate.

- Be responsible for coordinating, managing and completing the proper management, characterization, handling, treatment, and/or disposal of all investigation-derived wastes in accordance with standard industry practices and applicable laws, regulations, guidance and PaDEP directives. Waste

characterization and disposal documentation shall be maintained and provided to the Solicitor upon request and shall be included as an appendix to the SSCR. Waste disposal costs shall be included in the fixed prices quoted for Milestones A through E, as appropriate.

- Be responsible for providing the Solicitor and property tenants with adequate advance notice prior to each visit to the property. The purpose of this notification is to coordinate with the Solicitor and tenants to facilitate appropriate access to the areas of the site necessary to complete the SOW. Return visits to the site prompted by a failure to make the necessary logistical arrangements in advance will not constitute a change in the selected bidder's SOW or total quoted cost for Milestones A through E.

All work shall be conducted in accordance with industry standards/practices, and be consistent with the applicable PaDEP laws, regulations, and guidelines (e.g., PaDEP Groundwater Monitoring Guidance Manual, Document No. 383-3000-001 dated December 1, 2001).

Each bidder should carefully review the existing site information provided in the attachments to this RFB and seek out other appropriate sources of information to develop a cost estimate and schedule for the SOW. There is no prequalification process for bidding. Therefore, bids that demonstrate an understanding of existing site information and standard industry practices will be regarded as responsive to this solicitation.

E. TYPE OF CONTRACT/PRICING

The Solicitor wishes to execute a mutually agreeable Fixed-Price Defined SOW contract (Remediation Agreement). A Sample Remediation Agreement is included as **Attachment 3** to this RFB Solicitation. This Sample Remediation Agreement contains the standard language that has been previously employed by other Solicitors on other USTIF-funded claims. The bidder must identify in the bid response and document any modifications that they wish to propose to the standard language contained on Pages 1 through 12 of the Sample Remediation Agreement in **Attachment 3** other than obvious site-specific modifications to fit this RFB (e.g., site name and PaDEP Facility Number, assumptions, supporting documents, milestone descriptions, costs, and dates). The number and scope of any modifications to the standard agreement language will be one of the criteria used to evaluate the bid. **Any bid response that does not clearly and unambiguously state whether the bidder accepts the language presented in the Sample Remediation Agreement (Attachment 3) "as is", or that does not provide a cross-referenced list of requested changes to this agreement language, will be considered non-responsive.** This statement should be made in a Section entitled "Remediation Agreement". Any proposed changes to the agreement language should be specified in the bid response, however, these changes will need to be reviewed and agreed upon by both the Solicitor and the USTIF.

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 by the selected bidder 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, USTIF, and PaDEP.

The bidder shall provide its bid using the Standardized Bid Cost Summary Spreadsheet included as **Attachment 3** with descriptions for each task provided in the body of the bid document. In addition to **Attachment 3**, the bidder shall provide a unit rate schedule that will be used for any out-of-scope work on this project.

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. Any bid response 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 selected bidder's work under the USTIF claim will be subject to ongoing review by the Solicitor and USTIF or its representatives to assess whether the work has been completed and the associated incurred costs are reasonable and necessary.

In order to facilitate the USTIF's review and reimbursement of invoices submitted under this claim, the Solicitor requires that project costs be invoiced by the milestone tasks identified in the bid. The standard practice of tracking total cumulative costs by bid task will also be required to facilitate invoice review.

Each bid package received 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 and the rate schedule will be assumed to be valid for the contract.

F. BID RESPONSE DOCUMENT

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. Fixed price bid pricing using the Standardized Bid Cost Summary Spreadsheet in **Attachment 14** and a unit rate schedule for any out-of-scope work. The following information relating to the bid pricing should be included as additional sheets in **Attachment 14** or discussed in the body of the bid document:

a. The bidder's proposed unit cost rates for each expected labor category, subcontractors, other direct costs, and equipment;

b. The bidder's proposed markup on other direct costs and subcontractors (if any);

c. The bidder's estimated total cost by task consistent with the proposed SOW identifying all level-of-effort and costing assumptions.

3. Documentation of the bidder's level of insurance consistent with the levels listed in **Attachment 2**[4].

4. The names and brief resumes of the proposed project team for the key project staff, including the proposed Professional Geologist of Record who will be responsible for overseeing the work and applying a professional seal to the project deliverables.

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 Chapter 245 projects is your company currently consultant for in the Southcentral Region of Pennsylvania? Please list up to ten projects.

c. How many Chapter 245 projects has your company and/or the proposed Pennsylvania-licensed Professional Geologist worked on in the Southcentral Region of Pennsylvania during the last five years?

d. How many Chapter 245 Corrective Action projects involving an approved SCR, RAP and RACR in the State has your company and/or the Pennsylvania-licensed Professional Geologist closed (i.e., obtained RfL from the PaDEP) using any standard?

e. How many Chapter 245 Corrective Action projects in the State has your company and/or the Pennsylvania-licensed Professional Geologist closed (i.e., obtained RfL from the PaDEP) using the Site-Specific Standard? Please list up to five. Please include concise case histories of up to two sites.

f. Has your firm ever been a party to a terminated USTIF-funded Fixed-Price (FP) or Pay-for-Performance (PFP) contract without attaining all of the Milestones? If so, please explain, including whether the conditions of the FP or PFP contract were met.

[4] The selected bidder agrees and shall submit evidence to the Solicitor before beginning work that bidder has 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 commensurate with industry standards for the work to be performed.

6. Sufficient description of subcontractor involvement by task.

7. Detailed schedule of activities for completing the proposed SOW.

8. Description of how the Solicitor, ICF and the USTIF 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. Key assumptions made in formulating the proposed cost estimate. The use of overly narrow assumptions will negatively impact the bid.

10. Exceptions or special conditions applicable to the proposed SOW.

11. Quotations from major subcontractors.

G. MANDATORY SITE VISIT

THERE WILL BE A MANDATORY SITE MEETING ON MARCH 8, 2012, STARTING AT 1:00 PM. The Solicitor, the Technical Contact, or their designee will be at the site between 1:00 PM and 2:00 PM to answer questions and conduct a site tour for one participant per firm. This meeting is mandatory for all bidders – no exceptions. This meeting will allow each bidding firm to inspect the site and evaluate site conditions. **A CONFIRMATION OF YOUR INTENT TO ATTEND THIS MEETING IS REQUESTED TO BE PROVIDED TO THE TECHNICAL CONTACT VIA E-MAIL BY MARCH 6, 2012 WITH THE SUBJECT "NETTLE'S 2006-0170(S) – SITE MEETING ATTENDANCE CONFIRMATION".** The name and contact information of the company participant should be included in the body of the e-mail.