

COMPETITIVE FIXED-PRICE BID SOLICITATION

SITE CLOSURE VIA STATEWIDE HEALTH STANDARDS (Residential, Used-Aquifer)

**DOC'S DELI-LICIOUS
477 CARBONDALE ROAD
SCOTT TOWNSHIP, LACKAWANNA COUNTY
CLARK'S SUMMIT, PENNSYLVANIA 18411**

**PADEP FACILITY ID #35-50732
USTIF CLAIM #2002-0181(S)**

DECEMBER 12, 2012

The Pennsylvania Underground Storage Tank Indemnification Fund (USTIF or "Fund") issues this Request for Bid (RFB) on behalf of the Claimant, Mr. John Daugherty, who hereafter is referred to as the Client or Solicitor. This Bid to Result RFB¹ seeks competitive bids from qualified contractors (consultants) to perform fixed-price activities in accordance with the performance milestones referenced herein, the goal of which is to close the Site under The Pennsylvania Land Recycling and Environmental Remediation Standards Act of 1995 (Act 2) and to procure an associated relief from liability release from the Pennsylvania Department of Environmental Protection (PADEP). The milestone-oriented work described in this RFB shall be conducted relative to an identified petroleum release at Doc's Deli-Licious, 477 Carbondale Road (State Route 632), Clarks Summit, Pennsylvania. The Solicitor, who is the owner of the Doc's Deli-Licious and the property associated therewith, **hereby requests bidders to provide their written approach to achieve the project goal in accordance with the work milestones presented in this RFB, which will be incorporated into an associated fixed-price Remediation Agreement (Attachment 1).**

Although not a party to the agreement, USTIF will, subject to the claim limit cap, reimburse 100 percent of the reasonable, necessary, and appropriate costs associated with the Milestone Payment Schedule specified in Section 4 below and as incorporated into the associated fixed-price Remediation Agreement.

¹ "Bid to Result" solicitations identify task goals and rely on the bidders to provide a higher level of detail on how they will achieve the goal. The outcome of this type of solicitation is a performance-oriented contract under which payment is based on actual achievement of task goals. In reviewing the quality of bids submitted under Bid to Result solicitations, there is an increased emphasis placed on technical approach and reduced emphasis on cost (e.g., as compared to bids for "Defined Scope of Work" RFBs).

The following Milestones are provided below to facilitate the preparation of a bid and to maintain consistency among the bids for bid evaluation:

- Task / Milestone A – Quarterly Groundwater Monitoring and Reporting,
- Task / Milestone B – PADEP Meeting and File Review,
- Task / Milestone C – Supplemental Site Characterization and Associated Site Characterization Update Report,
- Task / Milestone D – Discretionary Pilot Testing and Reporting,
- Task / Milestone E – Preparation, Submission, and PADEP Approval of the Remedial Action Plan (RAP),
- Task / Milestone F – RAP Implementation,
- Task / Milestone G – Groundwater Attainment Demonstration,
- Task / Milestone H – Soil Attainment Demonstration,
- Task / Milestone I – Preparation, Submission, and PADEP Approval of Remedial Action Completion Report (RACR), and
- Task / Milestone J – Site Restoration and Well Abandonment.

By submitting a bid in response to this RFB, a firm (consultant or contractor) indicates their acceptance of the contractual terms (Attachment 1) and Milestone requirements of this project, including schedule deadlines, unless explicitly stated to the contrary in their bid.

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.** 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 # 2002-0181(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 Monday, February 4, 2013. 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.

Bids will be considered individually, consistent with the evaluation process described in the USTIF Competitive Bidding Fact Sheet, which can be downloaded from the USTIF website (www.insurance.pa.gov). While the Technical Contact will assist ICF, USTIF, and the Solicitor in evaluating the bids, it is up to the Solicitor to select the bidder from those bids deemed acceptable to USTIF as reasonable, necessary, and appropriate. The Technical Contact will also assist the Solicitor in communicating its choice of the successful bidder. Notification of bid award will likely occur within six weeks after receiving the bids.

1. ICF, SOLICITOR, AND TECHNICAL CONTACT INFORMATION

ICF International	Solicitor	Technical Contact
Mr. Jack Bilder ICF International 4000 Vine Street Middletown, PA 17057	Mr. John Daugherty 477 Carbondale Road Clark's Summit, PA 18411	Mr. Lawrence Martin (724) 234-2137 lmartin@excaliburgrpllc.com

Please note that the Technical Contact is the single point of contact regarding this RFB. Questions regarding this RFB and the associated Site conditions must only be directed **in writing** to the Technical Contact via the email address shown above, not to the Solicitor or USTIF. Bidder questions must be received no later than seven (7) calendar days prior to the due date for the bid. Bidders shall not contact or discuss this RFB with the Solicitor, USTIF, ICF, or PADEP unless approved, in advance, by the Technical Contact. This RFB, however, may be discussed with subcontractors and vendors to the extent required for preparing a responding bid. If a bidder has specific questions for PADEP, such questions shall be submitted only to the Technical Contact, who will forward the questions to PADEP. PADEP may choose not to reply to questions it receives, or may not reply in time for their response to be beneficial.

Please note that 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 understanding that all questions and answers will be provided to all bidders. The e-mail subject line must be "Doc's Deli-Licious 2002-0181(S) – RFB Question".

2. SITE INFORMATION²

Doc's Deli-Licious is an active retail gasoline station, delicatessen, and convenience store located on Carbondale Road in Clark's Summit, Pennsylvania, just west of exit 197 southbound off-ramp of I-81. The Solicitor purchased the property in 1986, brought the pre-existing building into compliance with current codes, and had the current UST system installed (tanks, lines, dispensers, islands, canopy, etc.). Doc's Deli-Licious opened for business in December 1986.

The approximate surface elevation of the Doc's Deli-Licious property is 1,545 feet above mean sea level. This parcel slopes towards the east and appears to have been cut into bedrock near its western boundary. The entire property appears to have been overlain with fill/topsoil during its development, and now is primarily covered primarily with asphalt, concrete, and grass. At this time, property improvements include one building (Doc's Deli-Licious convenience store and delicatessen) and the retail gasoline fueling station referenced above.

Bidders should consult the accompanying electronic files in Attachment 2 for more information on the Site. If there is any conflict between the information provided in this RFB and the source documents, bidders shall defer to the source documents.

Properties Included in the Site

The "Site" as referred to within this RFB includes four separate properties: 1) The 1.23 acre parcel owned by the Solicitor that contains Doc's Deli-Licious; 2) A 4.26 acre parcel south of the release property on the other side Carbondale Road that is owned by Michael Noto; 3) A 1.76 acre parcel to the west and north of the release property owned by Mr. and Mrs. Anthony Boyarsky; and 4) The Pennsylvania Department of Transportation right-of-way (PennDOT ROW) that includes State Route 632 (owned by the Commonwealth of Pennsylvania). These four properties will herein be referred to as the "Site."

The Boyarsky property is undeveloped (grassy). The Noto property appears to be an abandoned stone quarry that is currently used for storage of construction equipment and supplies.

² The Site information provided herein has been excerpted and/or summarized from the Site-related documents provided as Attachment 2 of this RFB. The Site Information section within this RFB contains only a brief summary of a select portion of the available information pertaining to the Doc's Deli-Licious Site. Bidders, therefore, are encouraged to carefully review all of the documents provided in Attachment 2 of this RFB to gain a more complete understanding of Site conditions and issues.

Discovery of the Petroleum Release

On January 30, 2002, a sheen was observed on the water interface in the UST field observation well, prior to uncovering the USTs during the February 2002 product line and dispenser upgrade project. In response to the sheen, a water sample was collected from the UST Field observation well and analyzed for unleaded gasoline constituents. Based on those analysis results, a release was reported verbally to PADEP on February 4, 2002, followed by written notification to PADEP on February 20, 2002. Subsequently, the source of the release was identified as leaking product lines underneath the dispenser islands. The product lines connecting the USTs to the dispensers were removed and replaced (upgraded) and sump containment was installed underneath each dispenser.

On February 5, 2002 PADEP issued an associated Notice of Violation to Mr. Daugherty.

Brief History of the Doc's Deli-Licious Property

When the Solicitor purchased it in 1986, the Doc's Deli-Licious property was abandoned with the exception of the current building. Humble Oil and Refining Company previously developed the property as a gas station by in 1959. However, equipment and USTs associated with the 1959 development of the Doc's Deli-Licious property were removed or abandoned prior to purchase of the property by the Solicitor (e.g., no UST systems). The Solicitor currently uses the property for his retail unleaded gasoline fueling station, delicatessen, and convenience store (Doc's Deli-Licious).

A relatively current Google Maps aerial photo of the Site area is provided in RFB Attachment 2.

Subsurface Conditions Summary

Soils at the Site are mapped as the Volusia series. The Volusia series contains typically very deep, somewhat poorly drained soils that formed in loamy till. The soils at the Site, however, have been significantly altered from their original composition. Approximately two to four feet of soils remain on the Doc's Deli-Licious property as a result of property development and facility construction. As such, the majority of soils present appear to be gravel fill [0-2 feet below ground surface (ft-bgs)] with some remaining natural soils beneath.

The Site is located within the Glaciated Low Plateau Section of the Appalachian Plateaus Physiographic Province. Topography of the Glaciated Low Plateau Section of the Appalachian Plateaus Physiographic Province is typified by low to moderate relief with rounded hills and valleys.

Bedrock geology in the vicinity of the Site is mapped as the Devonian-aged Catskill Formation. The Catskill Formation is generally describes as "a complex unit consisting of shale, siltstone, sandstone, and conglomerate; thickness of exposed rock decreases to west; relative amount of red beds decreases to almost zero in northwestern Pennsylvania."

Bedrock encountered during Site characterization activities closely matches the general description of the Catskill Formation. The Noto property immediately to the south/southwest is a former quarry and the exposed bedrock can be described as a reddish-gray coarse-grained siltstone or fine-grained sandstone. The limited thickness of overburden is likely glacial till deposited during the advance and retreat of glaciers over time. Observations of the glacial till indicate the Catskill Formation was likely the parent rock.

Regional structural geology is generally typified by low amplitude open folds, which decrease in occurrence in a northwestward direction. Regionally, the principal structural feature is the Wyoming-Lackawanna syncline. The dips of the rocks flanking the syncline are typically less than ten degrees in the northeastern portion of Lackawanna County.

Groundwater in the region occurs in both unconsolidated overburden materials (glacial till) and underlying bedrock. Native overburden materials at the Site consist of glacial till that has a moderate infiltration capacity and low to moderate permeability. Typically, the unconsolidated deposits are not of significant thickness and permeable enough to be utilized as an aquifer.

Groundwater in the consolidated (bedrock) deposits occurs almost entirely in secondary openings such as bedding planes, joints, and faults (i.e., secondary porosity). The number, size, and interconnection of the openings determines the units ability to store and supply groundwater. In consolidated rocks, water is confined within crevice openings, the rock walls of the channels acting as the impermeable confining material. When a well penetrates such water-bearing openings, the water level in the well rises above the level of the opening. The well might be considered artesian, but the rocks do not contain impermeable beds and the water occurs under water-table conditions. In summary, if a water-bearing zone is encountered in shallow bedrock, the water level in a well could potentially rise close to or at the elevation of the ground surface.

Well yields of up to 300 gallons per minute (gpm) have been reported in the Catskill Formation. The median well yields are reported to be between 12 and 35 gpm. Regionally, the Catskill is the main aquifer for Lackawanna County.

The assertion of water bearing openings/zones in bedrock was reinforced by the groundwater elevations observed during the groundwater investigation portion of the Site characterization. Specifically, groundwater elevations observed throughout the characterization revealed three potentially distinct groundwater-bearing zones.

Monitoring wells MW-2R, MW-4R, MW-5R, MW-6R, MW-7R, MW-8R, MW-9R, MW-10R, MW-13R, MW-17, MW-19, MW-20, MW-21, MW-22, MW-23, MW-24, MW-25R, MW-26, MW-27, and MW-28, which are completed to total depths ranging from 45 to 60 ft-bgs, with screen/open borehole intervals ranging from 8 to 60 feet, are believed to be representative of shallow bedrock groundwater (shallow groundwater zone). The groundwater elevations observed in these wells show an east/southeast trending flow pattern, which does not correlate with the regional mapping. Shallow groundwater zone elevations measured at the Site in March

2012 ranged from 1,512.78 feet in MW-27 to 1,541.25 feet in MW-20.³ March 2012 groundwater elevation monitoring data shows a shallow groundwater zone hydraulic gradient of 0.080 ft/ft between groundwater monitoring wells MW-20 and MW-22.

Monitoring wells MW-11S, MW-12, MW-14, MW-15, MW-16, and MW-18, which are completed to total depths of 80 ft-bgs (with the exception of MW-15, which is completed to 100 ft-bgs), with screen/open borehole intervals ranging from 17 to 100 feet, are believed to be representative of intermediate bedrock groundwater (intermediate groundwater zone). Although the groundwater elevations observed in these wells are distinctly different from those observed in the shallow zone, the observed groundwater elevations still correlate well with the assertion of a localized (shallow) groundwater flow trend to the east/southeast. Intermediate groundwater zone elevations measured at the Site in March 2012 ranged from 1,480.46 feet in MW-18 to 1,528.74 in MW-15. March 2012 groundwater elevation monitoring data show an intermediate groundwater zone hydraulic gradient of 0.172 ft/ft between groundwater monitoring wells MW-15 and MW-18.

Monitoring wells MW-1D, MW-3D, and MW-11D, which were completed to total depths of 120 ft-bgs, with screen/open borehole intervals ranging from 90 to 120 feet, are believed to be representative of deep bedrock groundwater (deep groundwater zone).⁴ The observed groundwater elevations in these wells differ dramatically from the shallow and intermediate zones, but correlate well with the assertion of regional groundwater flow towards the west. Deep groundwater zone elevations measured at the Site in September 2009 ranged from 1,451.74 feet in MW-3D to 1,455.82 feet in MW-11D. September 2009 groundwater elevation monitoring data shows a deep groundwater zone hydraulic gradient of 0.070 ft/ft between groundwater monitoring wells MW-3D and MW-11D.

Shallow and intermediate bedrock groundwater flow at the Site is to the east-southeast towards Kennedy Creek, which is the major surface water feature in the vicinity of the Site. Additionally, the predominant direction of shallow and intermediate groundwater flow corresponds somewhat to fracture orientation, which reinforces the assertion that groundwater flow is partially fractured dominated. Deep bedrock groundwater flow is to the south-southwest, which indicates a distinctly different hydrogeologic framework for groundwater flow as compared to the shallow and intermediate flow.

The area surrounding monitoring wells MW-11S, MW-12, MW-13R, MW-24, and MW-26 appears to be the most impacted area at the Site. This area is downgradient of the point-of-release (dispenser islands), based on the interpreted groundwater flow directions in the shallow and intermediate groundwater zones.

³ Monitoring well top-of-casing (TOC) elevations have changed as a result of multiple Site surveys. Bidders should take care when comparing groundwater elevations at an individual well that were measured on different dates. Well TOC elevations may need to be adjusted (equalized) when doing such comparisons.

⁴ Deep groundwater zone monitoring wells MW-1D, MW-3D, and MW-13D were abandoned in Fall 2010.

A shallow/intermediate groundwater zone 48-hour constant rate pumping test was conducted in March 2009 using monitoring well MW-16 as the pumping well. Approximately 1,714 gallons of groundwater was pumped from MW-16 at an average continuous flow rate of 0.60 gpm. The resulting hydraulic conductivity for the shallow/intermediate groundwater zone was calculated to be 2.13×10^{-4} centimeters/second (cm/sec).

A deep groundwater zone 48-hour constant rate pumping test was conducted in March 2009 using Monitoring well MW-1D as the pumping well. Approximately 9,664 gallons of groundwater was pumped from MW-1D at an average continuous flow of 3.36 gpm, however, the groundwater elevation in the pumping well (MW-1D) never fully stabilized and continuous drawdown was observed throughout the test. The resulting hydraulic conductivity for the deep groundwater zone was calculated to be 4.27×10^{-3} cm/sec.

A geophysical well/borehole logging program conducted using on-Site monitoring wells aided in the determination of the following:

- Groundwater flow beneath the Site is partially fracture dominated and groundwater elevations in each monitoring well are based upon communication with water-bearing openings.
- The degree of variation in subsurface bedrock geology is unique to each individual borehole with no readily distinguishable pattern. Additionally, lithologic changes do not necessarily correspond with fractures and/or water bearing zones.
- Groundwater geochemistry is relatively stable beneath the Site, but tends to be variable if the monitoring well is potentially in communication with multiple water bearing openings. This supports the assertion of multiple water bearing zones in particular monitoring wells.
- The geophysical logging verified the bedrock beneath the Site is the lower portion of the Catskill Formation, which is typified by finer-grained lithology such as siltstones and shales. This assertion is also supported by the overall lack of fracturing of the underlying bedrock.

Monitoring well top-of-casing (TOC) elevations have changed as a result of multiple Site surveys. Bidders should take care when comparing groundwater elevations at an individual well that were measured on different dates. Well TOC elevations may need to be adjusted (equalized) when doing such comparisons.

Contaminants of Concern (COCs) in Soil

COC impacts to Site soils have been fully delineated. Residually impacted soils, however, remain on the Doc's Deli-Licious Property with COC concentrations in excess of residential, used aquifer Statewide Health Standards (SHS, total dissolved solids less than or equal to 2,500 mg/kg).

Attainment of SHS has reportedly been demonstrated for soils proximate to the February 11, 2002 excavation (former dispenser islands closest to the store). Attainment of SHS has reportedly not been demonstrated for soils proximate to the February 27, 2002 excavation (former southern dispenser islands) or proximate to the May 8 – 16, 2006⁵ excavation (south of the dispenser islands). In addition, and subsequent to when these two soil attainment programs were implemented, soil samples from two soil borings advanced in 2010 contained COCs in excess of SHS. See Figure 3 of Appendix A of the June 2011 SSCR Addendum⁶ for a location plan that documents soil boring locations.

Three areas of residually impacted soil remain. The first is in the vicinity of where soil samples SD-3 and SB-7 were collected, where the highest relative COC concentration was (benzene at 21.6 mg/kg in SD-3) found in a soil sample collected from an excavation pit bottom. The second is in the vicinity of where soil samples SD-1, SD-2, SD-4, SD-8, and SD-12 were collected where residually impacted soil remains at the bedrock interface. In this area the highest relative COC concentration was (benzene at 134 mg/kg in SD-4) found in a soil sample collected from an excavation pit bottom. The third area is proximate to SB-13 and SB-14, where the highest relative COC concentration was (benzene at 4.1 mg/kg in SB-13) found in a soil sample collected five feet below the ground service. See Figure 3 of Appendix A of the June 2011 SSCR Addendum for a location plan that documents the remaining three areas of residually impacted soil.

Prior to the completion of soil borings SB-13 and SB-14 (both containing soil samples with COC concentrations in excess of SHS), the contaminant mass remaining in Site soils was estimated in the April 2010 SSCR⁷ to be approximately 15 lbs (1.5 feet in thickness and covering an area of approximately 35 square feet). This mass was considered "relatively insignificant" and the calculation used to estimate the contaminant mass was considered "conservative in nature."

COCs in Groundwater

Within the shallow and intermediate groundwater zones, 1,3,5-Trimethylbenzene (1,3,5-TMB), 1,2,4-Trimethylbenzene (1,2,4-TMB), benzene, toluene, ethylbenzene, methyl tert-butyl ether (MTBE), and naphthalene are currently present on-Site in concentrations in excess of residential, used-aquifer SHS. The May 2012 Quarterly [Groundwater Monitoring] Report for the first quarter of 2012 provides the following groundwater analytical information from the March 2012 quarterly groundwater monitoring/sampling event:

- 1,3,5-TMB, 1,2,4-TMB, and naphthalene were reported in groundwater samples

⁵ The exact dates for the May 2006 excavation vary between the April 2010 SSCR and the June 2011 SSCR Addendum.

⁶ *Supplemental Site Characterization Report Addendum*, Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated June 17, 2011.

⁷ *Supplemental Site Characterization Report*, Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated April 8, 2010.

collected from MW-2R, MW-12, MW-13R, and MW-24 at concentrations greater than their respective SHS.

- Benzene was reported in groundwater samples collected from MW-2R, MW-11S, MW-12, MW-13R, and MW-24 at concentrations greater than its SHS.
- Toluene was reported in groundwater samples collected from MW-2R, MW-12, and MW-13R at concentrations greater than the applicable SHS.
- Ethylbenzene was reported in groundwater samples collected from MW-12 and MW-24 at concentrations greater than the applicable SHS.
- MTBE was reported in groundwater samples collected from MW-2R, MW-11S, MW-12, MW-13R, MW-24, and MW-26 at concentrations greater than its SHS.

In March 2012, COC concentrations within monitoring well samples that exceeded SHS ranges, by constituent, are as follows:

- 1,3,5-TMB – 252 µg/l to 710 µg/l.
- 1,2,4-TMB – 946 µg/l to 2,200 µg/l.
- Benzene – 54 µg/l to 1,580 µg/l.
- Toluene – 1,100 µg/l to 1,590 µg/l.
- Ethylbenzene – 792 µg/l to 1,120 µg/l.
- MTBE – 56 µg/l to 259 µg/l.
- Naphthalene – 217 µg/l to 510 µg/l.

The monitoring well with the highest relative COC concentration in a March 2012 groundwater sample was MW-12; with a benzene concentration of 1,580 µg/l (316 times higher than the SHS for benzene of 5 µg/l).

Dissolved-phase post-March 2008 PADEP unleaded gasoline short list constituents observed in groundwater have historically migrated from the Doc's Deli-Licious property underneath the PennDOT ROW and to the Noto property.⁸

Monitoring wells MW-2R, MW-4R, MW-5R, MW-6R, MW-7R, MW-8R, MW-9R, MW-10R,

⁸ Although COC concentrations within groundwater samples collected from monitoring wells MW-6R and MW-8R on the Noto property were below SHS in March 2012, groundwater samples from both of these wells contained COCs with concentrations in excess of SHS as recently as December 2011.

MW-13R, MW-17, MW-19, MW-20, MW-21, MW-22, MW-23, MW-24, MW-25R, MW-26, MW-27, and MW-28 are drilled to depths believed to represent the shallow groundwater zone. COCs observed within the Site shallow groundwater zone are fully delineated.

Monitoring wells MW-11S, MW-12, MW-14, MW-15, MW-16, and MW-18 are drilled to depths believed to represent the intermediate groundwater zone. COCs within the Site intermediate groundwater zone appear to be delineated in all directions except to the north-northwest of MW-16 (MTBE plume), to the north and east of MW-11S, and to south-southeast of MW-12. However, PADEP has determined that no further intermediate groundwater zone characterization activities are necessary at this point to further evaluate down-gradient groundwater impacts in the intermediate groundwater zone.

The deep groundwater zone at the Site no longer appears to be impacted by Site-related COCs; and, therefore, the groundwater monitoring wells and boreholes drilled into the deep groundwater zone have at the Site been abandoned.

In addition to the data summarized from the Q1/2012 Remedial Action Progress Report⁹ (RAPR), Bidder's are encouraged to review all available groundwater quality data to identify variations in COC concentrations with respect to monitoring well construction and/or COC concentration trends within monitoring wells that may be useful in developing an effective remedial strategy at the Doc's Deli-Licious Site.

COC in Soil Vapor (Indoor Air Quality)

Evaluation of the Indoor Air Quality Decision Matrix for groundwater recommended soil gas sampling, indoor air sampling, a Site-specific analysis, and/or mitigation to eliminate or address the potential vapor intrusion exposure pathway. As such, a soil gas sampling program was conducted to assess this potential exposure pathway.

Five soil gas samples were collected at the Site during each sampling event (initial and confirmatory), three soil gas samples, one duplicate sample, and one ambient air sample. The ambient air sample is required since the subject facility is an active operating facility. The three soil gas samples were collected from permanent Geoprobe® Soil Gas Implants installed near the existing Doc's Deli-Licious building.

No Site related COCs were detected within the soil gas samples, the ambient air samples, or the duplicate samples collected during either the initial sampling event in December 2010 or the confirmatory sampling event in January 2011. Based on the soil gas analytical results (vapor intrusion investigation), the remaining groundwater contamination beneath the Site does not pose a vapor intrusion risk.

⁹ *Quarterly Report, First Quarter 2012*, Doc's Deli-Licious, by Letterle & Associates, LLC, dated May 3, 2012.

On-Site and Nearby Potable Wells

The Doc's Deli-Licious property is supplied with potable water via an on-site water supply well located approximately forty feet from the northwest corner of the Doc's Deli-Licious building. According to PAGWIS records, the well is 285 feet deep with a yield of 15 gallons per minute.¹⁰ As documented in the Q1/2012 RAPR, no COCs have been detected within the water samples collected from the on-Site potable well. This includes 28 sampling and analysis events dating from February 2002 through March 2012 (COC detection limits over this time ranged from 1.00 µg/l to 2.00 µg/l).

A search of the Pennsylvania Ground Water Information System revealed that 17 registered wells exist within a half-mile radius of the Site. These wells were either side-gradient or up-gradient of the Site, hydraulically isolated from the uppermost groundwater zone via a surface water body, or constructed with casing that extended through the uppermost water-bearing zone(s) in order to extract deeper groundwater.

Nearby Surface Water Bodies

Kennedy Creek and one of its tributaries are located approximately 2,200 feet and 800 feet east of the Site, respectively. Both waterways are topographically downgradient of the Site, and according to Chapter 93 of PADEP regulations, the water quality classification for Kennedy Creek is Cold Water Fishes.

Ecological Risk Screening

As Site contamination is limited to light petroleum related constituents, the potential for substantial ecological impact does not exist (related to the Doc's Deli-Licious release), and no further ecological evaluation was deemed to be required.

Current Site Conceptual Model (June 2011 SSCR Addendum)

Following the release in February 2002, emergency response and interim remedial actions (product line upgrade and three separate soil excavations and removals) were completed as initial responses to the unleaded gasoline release. A series of Site characterization studies were performed to identify and evaluate the extent of impacts to the environment in relation to the reported unleaded gasoline release.

The Site characterization studies were performed to evaluate soil and groundwater chemical and physical characteristics, determine the extent of observed contamination in soil and groundwater, and evaluate the geologic and hydrogeologic framework at the Site. Site characterization study activities included the following activities: a review of PADEP files; a review of the Site and surrounding properties; three Geoprobe® subsurface/soil investigations;

¹⁰ Page 71 of the April 2010 SSCR states that the store supply well is 500 feet deep with the pump set at 440 ft-bgs.

the installation and abandonment of multiple groundwater monitoring wells; a professional survey of the groundwater monitoring well/borehole network, property boundaries, and site infrastructure; groundwater monitoring/sampling events; a fracture trace analysis; groundwater step draw-down and constant rate pumping tests; a borehole geophysical investigation; groundwater movement assessments; soil/groundwater impact assessments; an investigation/assessment of the shallow and deep groundwater zones; a fate and transport analysis; and, an evaluation of risk exposure pathways and potential receptors.

The results of the Site characterization studies and interim remedial action confirmed the following:

- Subsurface soils at the Site were impacted by adsorbed-phase post-March 2008 PADEP unleaded gasoline short list constituents at concentrations greater than their respective SHS.
- Impacts to subsurface soils have been horizontally and vertically delineated (to the top-of bedrock).
- Three separate soil excavations and removals (interim remedial actions) were successful in mitigating identified impacts of unleaded gasoline contamination in subsurface soils; however, post-excavation attainment soil samples and soil samples collected during the subsurface/soil investigations have identified a remaining residual mass.
- Groundwater at the Site has been impacted by dissolved-phase post-March 2008 PADEP unleaded gasoline short list constituents at concentrations greater than their respective SHS;
- Dissolved-phase contaminants observed in groundwater have migrated from the subject property underneath the PennDOT ROW and onto the adjacent property at concentrations above their applicable SHS.
- The fate and transport analysis indicates that contaminants will continue to migrate off of the Doc's Deli-Licious property at concentrations above their applicable SHS.
- The hydrogeologic framework of the Site is divided into three groundwater zones (shallow, intermediate, and deep). Impacts to the shallow and intermediate groundwater zones at the Site have been fully delineated. The deep groundwater zone at the Site no longer appeared to be impacted with dissolved-phase COCs at concentrations greater than their respective SHS; therefore, the groundwater monitoring wells drilled into the deep groundwater zone were abandoned.
- The deep groundwater zone is hydraulically isolated from the shallow and intermediate groundwater zones.
- The geology/hydrogeology beneath the Site is highly complex; groundwater flow

appears to be dominated by geologic structure. Multiple water bearing zones appear to exist on-Site, but they are not hydraulically connected.

- The potential vapor intrusion exposure pathway has been eliminated (via soil gas sampling), the diffuse groundwater discharge, degradation of surface water, and ingestion pathways are incomplete (via groundwater delineation); however, potentially-complete exposure pathways were identified through the risk evaluation (specifically volatilization of constituents from groundwater, dermal contact, and soil particle inhalation pathways).

Environmental impacts (biological, physical, and/or chemical processes) to the Site are the result of the confirmed unleaded gasoline release that has been reported at the Doc's Deli-Licious facility. Site-related COCs and their source have been identified, and potential COC migration pathways have been evaluated, but not fully eliminated, potential environmental receptors have been identified and addressed, and the limits of the area of impacts have been fully delineated.

Interim Remedial Action Summary

The discovery of the unleaded gasoline release was due to leaky product lines, and a product line upgrade project was initiated on Doc's Deli-Licious facility. During UST system upgrade work, two interim action soil excavation programs were completed. The first was conducted on February 11, 2002 as a result of petroleum staining and odor observations in soils near the product lines uncovered underneath the dispenser islands closest to the store. Approximately 5.5 cubic yards of soil was excavated and removed at the Site on February 11, 2002 from an excavation that was approximately 2 feet deep, 15 feet long, and 5 feet wide. The second interim action soil excavation was conducted on February 27, 2002, when additional petroleum impacts were discovered near the product lines uncovered underneath the southern dispenser islands. This second excavation was approximately 3 feet deep, 30 feet long, and 8.5 feet wide (approximately 28 cubic yards). All soils excavated on-Site during February 2002 were properly disposed of off-Site.

Based on a recommendation in the November 2005 SCR¹¹, identified petroleum-impacted soils were excavated in May 2006 as interim remedial action (that was coordinated with a pavement re-surfacing project at the Site). During this excavation event, approximately 272 tons (or approximately 165 cubic yards) of soil was excavated and removed for off-Site disposal. This excavation was approximately 4 feet deep (to the bedrock interface), 55 feet long, and 20 feet wide.

¹¹ *Site Characterization Report*, Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated November 30, 2005.

Prior to back-filling the excavation with stone, the open excavation was utilized to install three sets of one-inch 20-slot screened poly vinyl chloride (PVC) lateral recovery lines (15 feet each) for potential future remedial purposes (water drainage and/or soil-vapor recovery). These PVC lines were embedded in pea-gravel, and the balance of the excavation was then backfilled with stone and compacted in lifts.

See Figure 3 in Appendix A of the June 2011 SSCR Addendum for locations of the interim remedial action excavation areas.

Abandonment of Site Monitoring Wells

Fifteen previously existing Site monitoring wells have been abandoned. All were abandoned in accordance with well abandonment procedures in the Water-Well Abandonment Guidelines, previously published as Chapter 7 in the PADEP publication Ground Water Monitoring Guidance Manual.

Three were abandoned in January 2008: MW-1, MW-3, and MW-13. MW-1 and MW-3 were abandoned (and replaced by MW-1D and MW-3D, respectively) because the wells had a construction that was inconsistent with PADEP's Groundwater Manual; they were constructed so that their open borehole intervals crossed more than one water-bearing zone, and they were installed to depths that "should have been recognized as excessive." MW-13 was abandoned (and replaced by MW-13R) "to ensure groundwater is located within the screen interval of the well based on historic depth to water measurements."

Twelve were abandoned in Fall 2010: MW-1D, MW-2, MW-3D, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11D, and MW-25. Monitoring wells MW-2, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, and MW-10 were abandoned because they were no longer impacted by Site COCs at concentrations above SHS and/or it was determined that they did not provide representative groundwater quality data.¹² Monitoring wells MW-1D, MW-3D, and MW-11D were abandoned because COC concentrations within their groundwater samples remained below SHS for six consecutive quarters. Monitoring well MW-25 was abandoned and replaced by MW-25R.

Utilities on the Doc's Deli-Licious Property

As indicated above, the Doc's Deli-Licious property is supplied with potable water via an on-Site water supply well. Additional on-property utilities that have been identified to date are as follows:

- Sanitary Sewer – The property has an on-parcel septic system with two tanks located about 100 feet to the east of the Doc's Deli-Licious building. These tanks subsequently

¹² Several of these wells were replaced with wells having shallower termination depths, designated with an "R." These wells, MW-2R, MW-4R, MW-5R, MW-6R, MW-7R, MW-8R, MW-9R, and MW-10R, were installed October 25 through November 2, 2010.

pump to a third tank and a leech field located about 115 feet to the north of the Doc's Deli-Licious building.

- Electric – Electrical service to the property is provided by PPL Electric Utilities Corporation. Overhead electrical lines enter the rear of the Doc's Deli-Licious building.
- Telephone – The Site is supplied with telephone service from Verizon PA. Overhead telephone lines enter the rear of the Doc's Deli-Licious building.
- Natural Gas – Not identified on the Doc's Deli-Licious property.

Remedial Standards

The April 2010 SSCR uses the following language to indicate that, as indicated above, the remedial standards for both soil and groundwater at the Doc's Deli-Licious Site are used-aquifer, residential SHS (total dissolved solids less than or equal to 2,500 mg/l).

"Applicable MSCs under the SHS include values for both residential and non-residential use scenarios. According to the current Doc's Deli-Licious property owner, the current and anticipated future-use of the Doc's Deli-Licious property is to remain non-residential. However, completion of the Act 2 process under a non-residential standard places a restriction on the future use of the land to ensure that property use is limited to non-residential. Therefore, completion of the Act 2 closure process will be pursued utilizing residential standards and will not require any property restrictions.

In addition to the residential and non-residential options, the responsible parties must select between MSCs for a used-aquifer or non-used aquifer setting. Potable water for the Site [on the Doc's Deli-Licious Property] and surrounding properties is provided by groundwater supply wells and there are no municipal restrictions prohibiting the use of groundwater or the installation of groundwater supply wells. Therefore, a used-aquifer scenario exists and the applicable standards must reflect this situation.

Given these factors, the remedial standard selected for the Doc's Deli-Licious property (PADEP Facility ID #35-50732) is the applicable PADEP UARSHS MSCs."

PROJECT MILESTONES AND THEIR OBJECTIVES

This solicitation requests a fixed price bid for achieving Site SHS goals by using the bidder's recommended course of action through the completion of the specific tasks/milestones defined in this RFB. For the Doc's Deli-Licious Site, the desired result or project goal is to "close" the Doc's Deli-Licious Site under Chapter 245 consistent with Pennsylvania Act 2 standards, and obtain an associated release of liability from PADEP by demonstrating attainment of SHS for soil, and attainment of residential used-aquifer SHS for groundwater. Therefore, because **this is a results-oriented remediation bid solicitation, each bid response must detail the approach and specific methods for achieving the task/milestone objectives. In other words, there is a premium on thoroughly describing the bidder's understanding of the site conditions along with the conceptual site model, and how that model relates to the bidder's proposed approach to attaining the objectives of each task/milestone.** Furthermore, each bid will need to contain a higher level of project-specific details sufficient for the Solicitor and USTIF to accurately assess each bid and differentiate among them. Each bidder should keep in mind that the quality of the technical approach is emphasized with these results-oriented bid solicitations as compared to bids submitted in response to solicitations that define the work scope with greater specificity (often referred to as Defined SOW RFBs). Conversely, while cost remains a significant factor in the evaluation of guaranteed cost-to-close bids, the emphasis on cost is reduced in comparison to the evaluation of the bid for a Defined SOW RFB.

Recommendations for changes/additions to the RFB outline shall be discussed, quantified, and priced separately; however, **failure to bid the RFB milestone format "as is" may result in a bid not being considered.**

In reviewing responses to this RFB, the bid review committee will use the following criteria (questions) to assess whether bids are technically sound:

- Each bid must address in detail each of the RFB milestones, including describing the bidder's understanding of the conceptual site model and how that model relates to the bidder's proposed approach.
- Does the bid demonstrate that the bidder has an understanding of existing Site conditions (COC mass distribution with the subsurface, Site geology, Site hydrogeology, etc.)?
- Does the bid demonstrate that bidder has an understanding of Site-specific regulatory and permitting issues?
- Does the bid demonstrate that the bidder has an understanding of individual milestone objectives as well as the overall project goal?
- Does the bid present an appropriate remedial solution that uses quantitative physical and laboratory data to document and confirm remedial progress?

- Is the remedial solution presented reasonably capable of achieving Site closure in conformance with PADEP guidance and PA Code, Title 25, Chapter 245 within a reasonable timeframe?
- Does the bid provide a convincing argument that the proposed remedial technology (or combination of technologies) will be effective, will be efficient, and will ultimately achieve all project goals with the lowest cost-to-closure using SHS under Act 2?

The Solicitor and USTIF recognize that each bidder may provide a unique path forward at the Doc's Deli-Licious Site, and that some bidder's solutions may include incorporation of some or all components of the existing on-Site remedial system. Bids, therefore, must be well reasoned, well organized, and detailed as they describe how the interested bidder plans to move the Site from its existing conditions (both from a technical prospective and a regulatory prospective) to the conditions required by PADEP to close the Site under Act 2 and provide the Solicitor with an associated release of liability. 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 their response to this RFB. Nothing stated or implied within this RFB shall be construed as an endorsement by the Solicitor or by USTIF of a particular remedial technology or remedial solution for the Doc's Deli-Licious Site, including continued use or disuse of any components of the existing remedial system (i.e., the dormant lateral recovery lines installed during the May 2006 soil excavation event).

Bidders should note that an excerpted version of this RFB was provided to the PADEP case manager for review and comment on October 22, 2012. The PADEP case manager responded on November 27, 2012, stating that PADEP had no comments on the RFB.

The bidder's approach to achieving closure of the Doc's Deli-Licious Site under PA Act 2 and an associated release of liability from PADEP 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 necessarily limited to meeting the 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 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.

Each bid must provide the Solicitor and USTIF with a schedule that begins with execution of the fixed-price Remediation Agreement with the Solicitor and ends with Site closure under Pennsylvania Act 2 (and the associated release of liability from PADEP). Schedules must also indicate the start and end of each of the milestones specified below, and indicate the timing of all proposed key milestone activities. Schedules must also specify no less than two weeks advance notice for the Solicitor and USTIF to review and comment on any documents that will be submitted to PADEP or any other governing regulatory body. As appropriate, bid schedules must include time to address any comments received from PADEP on the SCR or RAP Update Report(s).

During completion of the milestone objectives specified below and throughout implementation of the project, the selected consultant shall:¹³

- Conduct necessary, reasonable, and appropriate project planning and management activities until the project (fixed-price 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, etc.). 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 may be required by regulations or that may be 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 (dial 811) as required prior to any ground-invasive work.¹⁴ As appropriate, project management costs shall be included in each bidder's pricing to complete the milestones specified below.

¹³ As such, all bids shall include the costs of these activities and associated functions within the pricing for applicable milestones.

¹⁴ Pennsylvania's Underground Utility Line Protection Law, Act 287 of 1974, as amended by Act 121 of 2008 (the "Act"); OSHA Standard 1926.651 (revised 1990); the Federal Pipeline Safety Act of 1968, as amended, protecting underground liquid (CFR 49 Part 195) and natural gas (CFR 49 Part 192.614) pipelines; and the National Electric Safety Code, ANSI C-2 (revised 1997); require anyone who engages in any type of excavation or demolition, (see the Act for definition of excavation), to provide advance notice. In Pennsylvania, the Act requires "*notice in the design or planning phase of every work operation that involves the movement of earth with powered equipment. This notice is not less than 10 or more than 90 business days before final design approval. In the Construction phase of a work operation involving movement of earth with powered equipment or explosives the notice required is at least 3 business days but not more than 10 business days prior to actual excavation.*" The Pennsylvania One Call website is www.paonecall.org.

- 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 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 upon request.
- Be responsible for providing the Solicitor, and Site operator, with adequate advance notice prior to each visit to the property. The purpose of this notification is to coordinate with the Solicitor and Site operator to ensure that appropriate areas of the property are accessible. 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 consultant's SOW or compensation under the fixed-price Remediation Agreement.
- Be responsible for keeping all Site monitoring wells in good condition, with each well properly sealed and locked in-between each monitoring/sampling event. The selected consultant is responsible for repairing any seals or locks that become defective during the period of this Fixed-Price Agreement at its expense. Any request for Fund reimbursement of the reasonable costs to repair or replace a well will be considered on a case-by-case basis.

Task / Milestone A – Quarterly Groundwater Monitoring and Reporting

Under this milestone, bidders shall provide a firm fixed-price to complete quarterly groundwater monitoring and reporting events relative to the Doc's Deli-Licious Site. This milestone shall commence immediately following the execution of the associated fixed-price Remediation Agreement and shall terminate with the initiation of RAP implementation.¹⁵ For bidding purposes, **all bids shall assume six quarterly sampling / reporting events under Milestone A** and all bids shall include a quarterly event unit rate that will be used to adjust for any increase or decrease in the number of quarterly monitoring events that are actually required prior to the initiation of Milestone F4 during the RAP implementation phase of this project.

The following Site wells are designated for representative sample collection, analyses, and documentation during each quarterly groundwater monitoring event: the on-Site potable well, MW-2R, MW-4R, MW-5R, MW-6R, MW-7R, MW-8R, MW-9R, MW-10R, MW-11S, MW-12, MW-13R, MW-14, MW-15, MW-16, MW-17, MW-18, MW-19, MW-20, MW-21, MW-22, MW-23, MW-24, MW-25R, MW-26, MW-27, and MW-28 (26 monitoring well and one potable water supply well). In addition, each quarterly event shall include gauging the depth to groundwater (and

¹⁵ The first quarterly event conducted under Milestone A shall be timed to continue the pre-existing sequence of quarterly groundwater monitoring events without disruption.

separate-phase hydrocarbons if unexpectedly present) in all 26 existing monitoring wells prior to purging any of the wells for sampling. Groundwater-level measurements obtained from the monitoring wells shall be converted to groundwater elevations consistent with the current (most recent) vertical datum used at the Site to assess groundwater flow direction and hydraulic gradient (by groundwater zone – shallow and intermediate).

For each quarterly monitoring event, once all depth to groundwater data has been measured and recorded, each monitoring well designated for sample collection shall be purged then sampled in accordance with PADEP Groundwater Monitoring Guidance Manual, other applicable PADEP guidance and directives, and standard industry practices. Any well with a numerically quantifiable thickness of separate-phase hydrocarbons shall not be purged or sampled. Bidders shall manage equipment decontamination fluids and groundwater generated by the well purging and sampling activities in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives.

In addition, to be consistent the groundwater purging and sample collection methods that are currently employed at the Site, all Site monitoring wells shall be purged and sampled as follows (adapted from the Q1/2012 RAPR):

Site monitoring wells shall be purged and sampled using low-flow methods. For wells shallower than 20 feet, a combination of polyethylene and silicon tubing shall be utilized in conjunction with a peristaltic pump. The peristaltic pump shall then be utilized to purge the well at a low flow rate of less than 500 milliliters per minute. For wells deeper than 20 feet, polyethylene tubing shall be utilized in conjunction with a two-inch submersible pump to purge the well at a low flow rate of less than 500 milliliters per minute. The groundwater intake of each respective pump shall be placed approximately three feet below the measured groundwater level (depth). Monitoring well purge rates (millimeters per minute) shall also be low enough to avoid creating drawdown within the well being purged and sampled. If a monitoring well is dewatered during low-flow purging, a disposal bailer shall be utilized to collect the groundwater sample after the monitoring well has recovered. Purged groundwater shall be passed through a flow-through cell that measures temperature, pH, specific conductance, dissolved oxygen, and oxidation/reduction potential. Measurements of these parameters shall be documented every five minutes until three consecutive readings stabilized to within 10% of one and other. Purging shall be considered complete upon parameter stabilization for three consecutive readings. Once stabilization is complete and documented, the flow-through cell shall be disconnected and the groundwater sample(s) shall be collected immediately from the discharge line into the appropriate laboratory supplied collection bottles/vials.

Pumps shall be decontaminated between purging and sampling at each monitoring well.

Groundwater samples collected from the on-Site potable water supply well (store supply well) shall be direct grab samples that are obtained ahead of any existing

pressure tank or treatment system.

The groundwater samples shall be sealed in pre-preserved laboratory supplied glassware, labeled, documented, custody sealed, and placed in an ice-filled cooler for subsequent delivery to an analytical laboratory for analyses.

However, regardless of how purge water was managed historically at the Doc's Deli-Licious Site, all purge water shall be managed and disposed of in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives.

Each groundwater sample collected from the 26 monitoring wells and the on-Site potable water supply well shall be analyzed for the post-March 2008 PADEP short-list of unleaded petroleum products, unleaded gasoline category¹⁶, by a PADEP-accredited laboratory using USEPA Method SW-846 8260B, with method detection levels below individual SHS for each compound. Appropriate quality assurance/quality control (QA/QC) samples shall also be collected and analyzed for the same parameters as part of each event.¹⁷ Each groundwater sample collected from the 26 monitoring wells shall also be field-analyzed and recorded for the following parameters: temperature, pH, specific conductance, dissolved oxygen, and oxidation/reduction potential (i.e., document and report the final low-flow purging "stabilized" values).

The results of each quarterly groundwater monitoring event shall be documented in separate quarterly RAPRs (see below). In addition, any such available data shall also be documented in any update reports (i.e., Milestones C and D) or amendments to the April 2010 SSCR.

Each quarterly RAPR shall be prepared, completed, and submitted for PADEP review in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives. Each quarterly report shall provide the data generated during the reporting period, shall be complete and concisely organized, and shall contain at least the following elements:

- As applicable, a summary of Site operations and remedial progress made during the reporting period that addresses whether or not the degree of remedial progress is reasonably "on track" to achieve a timely and cost-effective Site closure.

¹⁶ Parameters include: 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, benzene, ethylbenzene, toluene, total xylenes, isopropylbenzene (cumene), methyl-tert-butylether (MTBE), and naphthalene.

¹⁷ Each bidder's approach to implementing Milestone A shall clearly identify the number of sampling events, number of wells / samples per event, well purging and sampling method(s), QA/QC measures, analytes, and other key assumptions affecting the bid price.

- Data collected from the monitored wells, including the depth to groundwater and thickness of any free product encountered.
- At least one groundwater elevation contour map per groundwater zone (shallow and intermediate), which also depicts a licensed professional's interpretation of groundwater flow direction.
- Tabulated historical quantitative groundwater analytical results, including results from the current quarter.
- The laboratory analytical report(s) for the samples collected during the current quarter.
- One Site-wide iso-concentration contour map for each compound detected in groundwater at a concentration exceeding its SHS within an individual groundwater zone (shallow or intermediate) during the quarter.¹⁸
- For each well that has exhibited a SHS exceedance during the reporting period and/or during the previous year, a graphical depiction of historical key contaminant concentrations and groundwater elevations to provide an assessment of correlations between fluctuating water levels/precipitation events and contaminant concentrations. This assessment should specifically address whether observed dissolved-phase constituent concentration fluctuations may be related to changing hydrogeologic conditions or whether these fluctuations may be potentially indicative of changed conditions requiring further investigation and/or a possible change in the Site closure strategy.
- For each well that has exhibited an SHS exceedance during the reporting period or previously, a graphical depiction of recent key contaminant concentration trends. Each quarter, contaminant concentration trend lines shall be calculated using the previous two-years of analytical data (or data collected after the active remediation has been initiated, if applicable) to be plotted on an x-y scatter plot with a logarithmic scale. The exponential trend lines shall be projected forward in time to assess the pace of or projected timeframe for remediation to achieve attainment of the selected remediation standard(s).
- As applicable, a discussion of the data to offer an updated assessment whether these data are consistent with a stable, shrinking, or expanding plume and, therefore, whether or not the plume appears to be responding to the remedial action in a manner suggestive of a timely and cost-effective Site closure.

¹⁸ All figures included in each quarterly report (e.g., Site plan, groundwater elevation maps, dissolved plume maps, etc.) shall be available in electronic format to the Solicitor upon request.

- Treatment and disposal documentation for waste generated during the reporting period.

USTIF will only reimburse for only necessary quarterly groundwater sampling / reporting events actually completed under this milestone.

Each quarterly RAPR shall be signed and sealed by a Professional Geologist registered in the Commonwealth of Pennsylvania.

Task / Milestone B – PADEP File Review and Meeting

Under this milestone, bidders shall provide a firm fixed-price for conducting a detailed review of project-related files (reports, correspondence, etc.) maintained by PADEP in their Wilkes-Barre, Pennsylvania office that relate to the Doc's Deli-Licious Site. This review is intended to assist the selected consultant in gaining a full understanding of the site history, documented environmental conditions, remedial activities conducted to date, the regulatory and permitting issues associated with the Site.

The fixed-price for reviewing files shall also include a project-specific meeting to discuss issues related to the Doc's Deli-Licious Site and, most importantly, to learn PADEP's perspective regarding the Site. This meeting, which shall take place in-person with the current PADEP case manager¹⁹, may be held either on-Site or at PADEP's Northeast Regional Office in Wilkes-Barre, Pennsylvania. The meeting is intended to keep PADEP involved this new Site-related project from its inception, which should help expedite the resolution of any historic or new regulatory issues. Key meeting discussion points, all action items, and any comments provided by the PADEP case manager during this meeting shall be discussed with the Solicitor and USTIF and documented in an associated letter.

Both the review of PADEP files and the in-person meeting with the PADEP case manager shall take place within 30 days of execution of the fixed-price Remediation Agreement associated with this RFB.

Task/Milestone C – Supplemental Site Characterization and Associated Site Characterization Update Report

This milestone provides bidders the opportunity to identify which additional site characterization work will be completed in advance of finalizing the remedial approach design and moving ahead with its implementation. Conducting supplemental investigative activities under this milestone is mandatory. PAUSTIF will be reimbursing up to \$10,000 for supplemental site characterization and reporting costs under this milestone. Bidders are to describe what supplemental site characterization will be completed, the rationale for the work and how the derived data will be

¹⁹ The PADEP case manager for the Doc's Deli-Licious Site, as of June 2012, is Mr. Michael E. Benner, P.G.

used. For purposes of bidding, and to ensure consistent cost scoring of bids, each bidder will enter exactly \$10,000 as the bid price for Milestone C in the Standard Bid Cost Spreadsheet. PAUSTIF will only reimburse up to \$10,000 of reasonable and necessary costs for those tasks actually performed. The selected bidder must provide time and material documentation in addition to supporting documentation required (in Exhibit C of the executed Remediation Agreement) to support the requested reimbursement and completion of this milestone.

Bidders may use this opportunity to: 1) confirm any elements of the site characterization completed by a previous consultant; 2) address any perceived data gaps in the existing site characterization work; 3) assist in the evaluation and determination of remedial technologies and system design; 4) assist with refining the cleanup timeframe estimate and / or other reasons related to validating the bidder's remedial approach and design.

Supplemental work (and the scope thereof) that will be conducted under this milestone will vary by bid according to each bidder's vision for remediation of the Site (Site Conceptual Model). Milestone C shall be used by bidders to verify previously collected data or to address any perceived gaps in the existing characterization data relevant to bidder's approach to completing the Site remediation. The supplemental work proposed and conducted under this milestone shall be formulated independently by each bidder at their sole discretion. The work breakdowns for supplemental Milestone C work will vary by bid.

The associated SCR Update Report, as applicable, shall appropriately address and conform with the updates to 25 Pa. Code Chapter 250 that became effective January 8, 2010. The updates include changes to the some regulated substances listed in the Statewide Health Cleanup Standard tables and a requirement to evaluate impacts due to vapor intrusion in accordance with the Department's guidance document titled "Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard." The updates also changed certain SHS for some petroleum short list constituents.

All proposed supplemental Milestone C activities shall be accompanied by the following:

- The purpose and need for each Milestone C activity.
- A detailed scope description of each activity, including the use of and incorporation of pre-existing Site data.
- The timing and schedule of each activity relative to the overall project schedule.
- A description of the anticipated results of each activity and how such results may impact your proposed conceptual remedial action plan.

The scope, purpose, and results of supplemental Site characterization activities that are conducted under Milestone C shall be documented in a SCR Update Report, which shall be submitted to both the Solicitor and USTIF for review prior to its submission to PADEP. Each bidder's project schedule shall provide two weeks advance notice for Solicitor and USTIF review of the draft SCR Update Report. The final SCR Update Report shall address comments received from the Solicitor and USTIF on the draft SCR Update Report before it is submitted to PADEP.

The SCR Update Report shall be consistent (with regard to approach and level of effort) with the conceptual remedial action plan provided in the selected consultant's bid.

Task / Milestone D – Discretionary Pilot Testing

Under this milestone, bidders shall provide a firm fixed-price for discretionary pilot testing activities at the Site. Should a bidder elect not to conduct any activities under Milestone D, a fixed-price of \$0.00 shall be entered into the appropriate location of the Standardized Bid Form (Attachment 3). Bidders that elect not to propose discretionary pilot testing to facilitate the efficient closure of the Site under Act 2 must provide the technical rationale (basis) for this decision within their bid, along with supporting examples (as appropriate). In addition, bidders that do not believe that discretionary pilot testing is necessary to efficiently close the Site under Act 2 must explicitly state within their bid that they accept the inherent risk in relying almost entirely or exclusively on data collected by others.

Work that may be conducted under this milestone is discretionary and the scope thereof will vary by bid according to each bidder's vision for remediation of the Site (Site Conceptual Model). Milestone D shall be used by bidders to collect the data they feel is necessary to assess or finalize the design of the remedial system (or approach they plan to use at the Doc's Deli-Licious Site to achieve SHS for groundwater). The work proposed and conducted under this milestone (if any), as well as the fixed- or unit-price(s) associated therewith, shall be formulated independently by each bidder at their sole discretion. Milestone work breakdowns (if any) and their associated pricing entered into the Standardized Bid Form (Attachment 3) will vary by bid (i.e., the dormant lateral recovery lines installed during the May 2006 soil excavation event).

Should a bidder believe that it is reasonable, appropriate, and necessary to conduct feasibility studies or pilot test to assess or finalize the design of the remedial system or approach that they plan to use at the Doc's Deli-Licious Site to achieve SHS for soil or groundwater, such additional activities and their associated bid pricing shall be included under Milestone D. Potential considerations regarding the need for Milestone D activities include: determination of Site-specific remedial design data, confirmation that the proposed technology is technically feasible, confirmation that the proposed technology is cost-effective, and confirmation that the proposed technology will provide a timely closure of the Site under Pennsylvania Act 2.

Although not an endorsement to implement (or not to implement) any such work, potential activities for bidders to consider may include, but not be limited to, the following:

- In-situ pneumatic or hydraulic permeability studies (radius of influence tests).
- Feasibility studies and/or pilot testing activities to assess the effectiveness of a specific remedial technology or approach.
- Remedial design calculations, technology information, equipment specifications, and materials specifications as appropriate to support implementation of and PADEP approval of the remedial technology proposed within your bid.

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

- The purpose and need for each Milestone D activity and an appropriate breakdown (Milestone D1, D2, etc.).
- A detailed scope description of each activity, including the use of and incorporation of pre-existing Site data.
- The timing and schedule of each activity relative to the overall project schedule.
- A description of the anticipated results of each activity and how such results may impact your proposed conceptual remedial action plan.
- For activities involving the evaluation of a remedial technology, such as a feasibility study or pilot test, bids shall describe in detail the likelihood that of the resulting data will dictate a change in the conceptual remedial action plan proposed in your bid.
- Firm fixed-pricing and any appropriate unit pricing for each Milestone D activity (Milestone D1, D2, etc.) within each bidder's completed Standardized Bid Form (Attachment 3).

Additional, discretionary feasibility / pilot testing activities (if any) conducted under Milestone D shall be documented in the Site RAP (Milestone E), which shall be submitted to both the Solicitor and USTIF for review prior to its submission to PADEP. Each bidder's project schedule shall provide two weeks advance notice for Solicitor and USTIF review of the draft document. The final RAP shall address comments received from the Solicitor and USTIF on the draft report before it is submitted to PADEP. The RAP shall be consistent (with regard to approach and level of effort) with the conceptual remedial action plan provided in the selected consultant's bid.

Bidders shall specify within their bids the critical criteria (if any) that will be used to evaluate data obtained through Milestone D activities. These critical criteria shall be used by the successful bidder to assess whether or not their proposed conceptual remedial action plan is feasible. As such, and as applicable, bids shall list an upper and lower limit for each critical criterion that will define the range of acceptable results (i.e., feasibility study or pilot testing results). These criteria must be tightly controlled measurements or calculations that could be independently measured or verified by others during testing. Based on these criteria, Exhibit A of the Fixed-Price Agreement (Attachment 1) will contain a provision for cancellation of the agreement test results (i.e., the data obtained during the implementation of Milestone D) does not meet certain bidder-defined criteria bounds (ranges). Each bidder, therefore, shall explicitly specify any and all critical criteria and their associated acceptable ranges for key design elements on which their proposed remedy depends (i.e., the critical criteria and quantified ranges of values that will make the proposed conceptual remedial action plan technically feasible, cost-effective, and timely).

For example, and only if a bidder proposes to conduct activities under Milestone D, bids shall include language like, "For our proposed conceptual remedial action plan to be successful and the for technology(ies) used thereby to operate as planned and meet our proposed cleanup schedule, our proposed recovery well pumping test must demonstrate the following:

1. The long-term, sustainable groundwater recovery rate must be assessed to be greater than 2 gpm per recovery well,

2. Recovery well capture zones at the minimum sustainable groundwater recovery rate will require no more three recovery wells to hydraulically manage the site contaminant plume,
3. The dissolved iron concentration within groundwater collected during the pumping test will not exceed 5 milligrams per liter (mg/L)."

End of Example bid language. Actual bid language, if any, and their associated critical criteria will vary by bidder.

The critical criteria identified in each bid and their associated acceptable range of testing results will be evaluated by the bid evaluation committee as part of the technical review. Unrealistic criteria or criteria that are unreasonably narrow will reduce the favorability of the bid as viewed by the bid review committee. The selected bidder will prepare a Pilot Test Report and submit it to the Solicitor with a copy to USTIF (or their representative). The Pilot Test Report shall show that the pilot test was conducted according to their bid and shall constitute documentation for payments on Milestone D activities regardless of the result. If the results of the pilot testing show that the proposed remedial action is feasible based on the specified criteria and ranges, the selected consultant shall move forward on the project. However, if the results of the pilot testing show that the testing is outside of the pre-determined critical criteria range needed for timely achievement of remedial goals, either party to the associated fixed-price Remediation Agreement may cancel (see paragraph 11.b.vii of the example fixed-price remediation Agreement provided as Attachment 1).

This stage of the project is referred to as the "Pilot Test Off-Ramp" and is intended to protect the selected consultant and the Solicitor from being obligated to move forward with a remedial action that is not optimal or is expected to fail. While the selected bidder will be under no obligation to cancel the eventual fixed-price Remediation Agreement if the pilot test results are outside the criteria or range specified in the RFB Solicitation response, the following conditions will apply. With advance Solicitor and USTIF approval, the Consultant may elect to modify the remediation plan and continue with the project at no additional cost; that is, for the same total fixed price found in the RFB Solicitation response, based on the remaining fixed description and price for the remaining tasks. If the Solicitor or USTIF choose not to approve the Consultant's plan, the Remediation Agreement for the project will terminate, or if the Consultant elects not to proceed and withdraws, the Remediation Agreement for the project will terminate.

The pricing for Milestone D (i.e., Milestones D1, D2, etc., as applicable) on the Standardized Bid Form (Attachment 3) shall incorporate all costs associated the documentation of the associated pilot tests, either within a standalone document or within the RAP.

Milestone D activities (if any) shall be conducted as soon as possible following the completion of Milestones B and C.

Milestone E – Preparation, Submission, and PADEP Approval of the RAP

Under this milestone, bidders shall provide a firm fixed-price for the preparation, submission to PADEP, and approval by PADEP of a Remedial Action Plan (RAP). Milestone E shall be conducted immediately upon completion of Milestones B, C, and D. Under Milestone E, the selected consultant shall prepare a RAP that is consistent with the conceptual remedial action plan proposed in their bid and consistent with any new data obtained via work conducted under Milestones A through D.

The RAP shall contain all information required under 25 PA Code 245.311 and other applicable statutes, regulations, and guidance including being signed and sealed by a Professional Geologist and a Professional Engineer registered in the Commonwealth of Pennsylvania. The RAP shall be of sufficient quality and content to reasonably expect PADEP approval.

In addition, the RAP shall appropriately address and conform with the updates to 25 Pa. Code Chapter 250 that became effective January 8, 2010. The updates include changes to the some regulated substances listed in the Statewide Health Cleanup Standard tables and a requirement to evaluate impacts due to vapor intrusion in accordance with the Department's guidance document titled "Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard." The updates also changed certain SHS for some petroleum short list constituents. PADEP has confirmed that the updates do not require an expansion of the COCs that are included for analysis at the Doc's Deli-Licious Site.

The RAP shall detail the methodology and incorporate results of any new groundwater monitoring results (Milestone A), any new Site characterization data (Milestone C), and any new pilot test results (Milestone D)²⁰ conducted to assess Site-specific conditions. The RAP shall present a clear discussion to PADEP as to what activities and testing has been completed, their associated results, and a structured argument as to why the selected remedial strategy is reasonable, appropriate, and necessary for the Doc's Deli-Licious Site. Tables, Site plans, a P&ID, calculations, photographs, equipment requirements, and material specifications, and relevant attachments shall be incorporated into the RAP as necessary to support narrative discussions.

Bids, as well as the RAP, shall identify and present the selection basis for the Site monitoring wells to be used as points of compliance wells (POC wells) during Milestone G.

Bids, as well as the RAP, shall provide the conceptual design that clearly identifies how the selected technology(ies) will achieve Site closure under Act 2 via SHS (e.g., areas/zones of remedial focus and the expected timeframe required to achieve SHS). Bids, as well as the RAP, shall clearly describe the proposed remedial system, including (as appropriate): the number, depth, construction of treatment points, expected rates/pressures for addition or removal of gases, liquids or solids, major equipment items including motor horsepower expectations for

²⁰ As applicable, this may in part be accomplished by incorporating the Pilot Test Report (if appropriate) prepared for Milestone D into the RAP (Milestone E).

each planned major unit, size/specifications of any liquid or off-gas control units, etc. The conceptual design within the bid and the RAP shall also identify all applicable construction permits and operational permits.

The RAP shall be submitted to both the Solicitor and PAUSTIF for review and comment. Each bidder's project schedule shall provide two weeks advance notice for Solicitor and PAUSTIF review of the draft document. The final RAP shall address the comments received from the Solicitor and PAUSTIF before it is submitted to PADEP for review. The quoted cost to complete this milestone shall also include addressing any comments received from PADEP on the final RAP.

**Milestone F – RAP Implementation
(Final Design, Remedial System Permitting, Installation, Start-Up, Operation and Maintenance)**

Using their bid-specified conceptual remedial action plan (as ultimately specified in the RAP, Milestone E, under this milestone bidders shall provide a firm fixed-prices for the final design, final remedial system equipment selection and procurement, final remedial system material selection and procurement, remedial system permitting, remedial system installation, remedial system start-up, remedial system operation and maintenance (including groundwater monitoring and reporting) of their conceptual remedial action plan (as ultimately specified in the RAP, Milestone F). Bids shall indicate that the Solicitor and USTIF shall have the opportunity to inspect and confirm that the new remedial system has been installed and is being operated and maintained as described in the associated fixed-price Remediation Agreement.

Each bidder shall submit with their bid a conceptual remedial action plan for the Doc's Deli-Licious Site. This conceptual remedial action plan, which may or may not include incorporation of some or all of the existing Site remedial system (i.e., the dormant lateral recovery lines installed during the May 2006 soil excavation event), shall provide all the narrative and graphic information necessary for the bidder both the Technical Contact and USTIF to fully understand the bidder's intentions.

Bids for Milestone F are to provide an all-inclusive, "turnkey," design-build scope of work and the associated pricing to implement the proposed RAP following its approval by PADEP. To assist the bid evaluation process, all bids shall incorporate and conform to the following general breakdown of Milestone F activities [both in bid of Milestone F and on the Standardized Bid Form (Attachment 3)]:

- Milestone F1 – Final Design, Equipment Selection/Procurement, and Material Selection/Procurement, and Preparation of Associated Work Plans (Health and Safety, Construction Quality Assurance Plan, Remedial System Start-Up and Testing Plan, etc.).
- Milestone F2 – Remedial System Permit Procurement, Remedial System Installation, Remedial System Start-Up and Testing.
- Milestone F3 –Monthly Remedial System Operation and Maintenance (Reporting via Quarterly RAPRs).

- Milestone F4 – Quarterly Groundwater Monitoring During Remedial System Operation [This is an uninterrupted continuation of the requirements specified in Milestone A (Quarterly Groundwater Monitoring and Reporting) that begins with the approval of the RAP by PADEP and ends with the commencement of Milestone G (Groundwater Attainment Demonstration).]

Milestone F1 shall be presented within bids and on the associated Standardized Bid Form with a single firm fixed-price; Milestone F2 shall be presented within bids and on the associated Standardized Bid Form with a single firm fixed-price; Milestone F3 shall be presented within bids and on the Standardized Bid Form as a monthly unit price; and Milestone F4 shall be presented within bids and on the Standardized Bid Form as a quarterly unit price. Bids shall provide the Solicitor and USTIF with an estimated length of time (i.e., number of months) that the remedial system will need to be operated in order to achieve the project goal and allow the initiation of Milestone G (Groundwater Attainment Demonstration). The Standardized Bid Form (Attachment 3) shall use 24 months of remedial system O&M (Milestone F3) and 8 quarterly groundwater monitoring events during remedial system O&M (Milestone F4).

Bids shall describe the specific remedial system monitoring, permit compliance tests/reporting, operation protocols, and maintenance procedures that will be used to monitor and evaluate its performance. Bids shall also describe how their proposed remediation system may be adjusted to address changing Site conditions as the on-Site remedial effort proceeds.

Milestone G – Groundwater Attainment Demonstration

Consistent with the bidder-proposed POC wells (see Milestone E), under this milestone, bidders shall provide a firm fixed-price for completing eight consecutive quarters of groundwater monitoring, sampling, and reporting events following to demonstrate achievement of SHS for groundwater relative to the Doc's Deli-Licious Site. Each groundwater monitoring and sampling event shall only include the monitoring wells designated in the approved RAP as POC wells.²¹ Groundwater attainment demonstration monitoring and reporting shall be initiated following successful remediation of the Site to SHS and shall continue as required for a total of eight consecutive quarterly events (24 months).²² All work under Milestone G shall be conducted in accordance with 25 PA Code §250.702, §250.704, and §250.707.

Aside from the change in list (and, therefore the number) of wells to be sampled and analyzed (i.e., only Site POC wells shall be monitored during the implementation of Milestone G), all protocols for groundwater sample collection, management, analysis, and reporting (i.e.,

²¹ For consistency of bid evaluation and pricing only, all bids shall assume that PADEP will require 18 POC wells at the Doc's Deli-Licious Site.

²² Bidders shall include language in their bid that if groundwater data in the designated POC wells meet the conditions for Site closure for four consecutive quarterly events, a petition to approve a reduction in the total number of groundwater attainment sampling events shall be filed with PADEP.

quarterly RAPRs) specified under Milestone A apply to groundwater attainment monitoring conducted under Milestone G.²³

As such, each quarterly groundwater attainment sampling event shall be documented in a quarterly RAPR submitted to PADEP within 30 days of receiving the analytical results for each event. At a minimum, each RAPR prepared during Milestone G shall contain the following:

- The applicable RAPR requirements specified under Milestone A.
- A narrative description of the sampling procedures and results,
- Tabulated data from current quarterly and all historical data,
- A discussion of the data and an updated assessment of progress toward successful demonstration of attainment via the 75%/10x ad hoc statistical rule.

Each RAPR shall be sealed by a Professional Geologist or a Professional Engineer registered in the Commonwealth of Pennsylvania.

Milestone H – Soil Attainment Demonstration

Under this milestone, bidders shall develop and implement a soil sample collection and analysis program to demonstrate compliance with 25 PA Code 250.703 (General Attainment Requirements for Soil) at the Doc's Deli-Licious Site. Historical Site characterization data indicate that some on-Site soils above the zone of permanent saturation contain COCs in concentrations that exceed SHS. (See Figure 3 of Appendix A of the June 2011 SSCR Addendum.) Soil attainment demonstration shall be conducted following the completion of Milestone F (RAP Implementation) and upon initiation of Milestone G (Groundwater Attainment Monitoring).

The location / depth of the soil samples shall be determined using PADEP's systematic random sampling procedures, assuming one soil sample per boring (or sampling point) shall be submitted for laboratory analysis. Soil samples shall be analyzed for the post-March 2008 PADEP short list of unleaded gasoline parameters. Appropriate quality assurance/quality control (QA/QC) samples shall also be obtained for laboratory analysis. The soil sampling results shall be analyzed using PADEP's 75%/10x Ad Hoc Rule.

Bids shall clearly identify the number of soils attainment samples to be collected and analyzed under Milestone H.

Results of the soil attainment demonstration monitoring shall be incorporated into the RACR (Milestone I).

²³ This includes, but is not limited to, groundwater depth gauging, SPH monitoring, monitoring well purging, low-flow sampling requirements, groundwater sample management, purge water management, QA/QC protocols, documentation and reporting protocols, etc.

Milestone I – Preparation, Submission, and PADEP Approval of Remedial Action Completion Report

Under this milestone, the bidder will prepare a fixed-price cost to prepare a draft and final RACR following the completion of both Milestones G and H. The RACR shall contain all information required under 25 PA Code 245.313 and other applicable statutes, regulations, and guidance including being signed and sealed by a Professional Geologist registered in the Commonwealth of Pennsylvania.

Each bidder's project schedule shall provide two weeks advance notice for Solicitor and USTIF review of the draft document. The final RACR shall address comments received from the Solicitor and USTIF on the draft report before it is submitted to PADEP. The RACR shall request relief from liability relative to soils and groundwater for the Doc' Deli-Licious petroleum release by demonstrating compliance with the residential, used-aquifer SHS for soils and groundwater (total dissolved solids in groundwater less than or equal to 2,500 mg/l) without the use of any activity and use limitations, institutional controls, or engineering controls.

Milestone J – Site Restoration and Well Abandonment

Under this milestone, bidders shall provide a firm fixed-price for: proper abandonment of all Site-related monitoring wells; proper abandonment of all Site-related recovery wells or injection wells; proper abandonment of all Site piezometers, vapor extraction wells, and vapor monitoring wells (as applicable); removal and proper disposal of any remaining wastes, removal and proper disposal of the on-Site treatment building; removal and proper disposal of all remedial equipment and materials (including all such equipment and materials that pre-date this RFB), as-needed grading of all ground surface areas that have been disturbed by site characterization or remedial action activities, and in-kind restoration (pavement or vegetation) of all ground surface areas that have been disturbed by site characterization or remedial action activities.

Work and bid pricing for this milestone shall include all associated documentation required by PADEP or the Solicitor. This includes, but is not limited to: daily photo-documentation of all site restoration and well abandonment activities, and submitting properly completed well abandonment forms to PADEP on behalf of the Solicitor. Copies of these photographs and well abandonment forms shall be provided to the Solicitor and USTIF.

Work under Milestone J shall be completed within 60 days of final RACR approval by PADEP and shall be conducted in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives. Monitor well abandonment and Site restoration activities will be coordinated with the Solicitor. Prior to abandonment, all monitoring wells shall be checked for obstructions that may interfere with any abandonment grouting protocol. If obstructions are found, they shall be removed prior to monitoring well abandonment.

All groundwater monitoring wells, groundwater recovery wells, piezometers, vapor extraction wells, and vapor monitoring wells (as applicable) at the Site shall be properly abandoned in a manner consistent with PADEP's 2001 Groundwater Monitoring Guidance Manual. Copies of the

completed Groundwater Monitoring Abandonment Forms shall be forwarded to PADEP so that PADEP may close its files on this facility. Prior to abandonment, all wells and piezometers shall be checked for obstructions that may interfere with any abandonment grouting protocol. If obstructions are found, they shall be removed prior to well or piezometer abandonment.

The selected consultant shall determine whether the Solicitor wishes to maintain any components of the remedial system (e.g. treatment building) before removing it from the Site. All debris and waste materials generated during well abandonment and Site renovation activities shall be properly disposed of in accordance with all applicable laws, regulations, and PADEP guidance.

4. TYPE OF AGREEMENT / PRICING

The Solicitor wishes to execute a mutually agreeable, fixed-price Remediation Agreement for the work addressed by Milestones A through J. A sample fixed-price Remediation Agreement is included as Attachment 1.²⁴

As noted earlier, by submitting a bid in response to this RFB, a firm indicates their acceptance of the contractual terms (Attachment 1) and Milestone requirements of this project, including schedule deadlines, unless explicitly stated to the contrary in their bid. Therefore, if a bidder seeks changes to the fixed-price Remediation Agreement, these changes *are to be specified in the submitted bid*. Please note that any requested changes must be agreed upon by both the Solicitor and USTIF and subsequently included in the executed fixed-price Remediation Agreement.

Bids shall identify unit cost rates for labor, other direct costs, and equipment, as well as proposed mark-ups on other direct costs and subcontracted services for Milestones A through J. Associated unit price quotes shall be entered into the Standardized Bid Form included as Attachment 3 to this RFB, and found among the accompanying electronic files. 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.

Bids that reference unreasonable assumptions, unreasonable special conditions, or unreasonable exemptions may make the bid too difficult to evaluate, and therefore, may result in a bid in the bid being deemed "unresponsive."

²⁴ The selected consultant (or contractor) will be provided with an electronic copy of the sample Fixed-Price Agreement in Word format at which time the Site and agreement-specific information can be added.

Payment Milestones: Table 1 below illustrates the approximate timing expected for completion of respective milestone activities and milestone payouts. Actual milestone payments will occur only after successful and documented completion of the work defined for each milestone. Major payment milestones under the fixed-price Remediation Agreement shall be broken out as follows:

- Task / Milestone A – Quarterly Groundwater Monitoring and Reporting,
- Task / Milestone B – PADEP File Review and Meeting,
- Task / Milestone C – Supplemental Site Characterization and Associated Site Characterization Report,
- Task / Milestone D – Discretionary Pilot Testing and Reporting,
- Task / Milestone E – Preparation, Submission, and PADEP Approval of the RAP,
- Task / Milestone F – RAP Implementation,
- Task / Milestone G – Groundwater Attainment Demonstration,
- Task / Milestone H – Soil Attainment Demonstration,
- Task / Milestone I – Preparation, Submission, and PADEP Approval of RACR, and
- Task / Milestone J – Site Restoration and Well Abandonment.

TABLE 1 – SAMPLE MILESTONE COMPLETION / PAYMENT SCHEDULE

<u>Est. Milestone Month After Contract Award</u>	<u>SOW Activities Anticipated / Completed for that Month</u>	<u>Milestone</u> ¹
1	Quarterly Groundwater Monitoring and Reporting	A1
4	Quarterly Groundwater Monitoring and Reporting	A2
7	Quarterly Groundwater Monitoring and Reporting	A3
10	Quarterly Groundwater Monitoring and Reporting	A4
13	Quarterly Groundwater Monitoring and Reporting	A5
16	Quarterly Groundwater Monitoring and Reporting	A6
1	PADEP Meeting and File Review	B
3	Supplemental Site Characterization, etc. (if conducted)	C1, C2, etc.
5	Discretionary Pilot Testing and Reporting (if conducted)	D1, D2, etc.
7	Preparation, Submission, and PADEP Approval of a RAP	E
9 through 33	RAP Implementation	F
34	Groundwater Attainment Demonstration	G1
37	Groundwater Attainment Demonstration	G2
40	Groundwater Attainment Demonstration	G3
43	Groundwater Attainment Demonstration	G4
46	Groundwater Attainment Demonstration	G5
49	Groundwater Attainment Demonstration	G6
52	Groundwater Attainment Demonstration	G7
55	Groundwater Attainment Demonstration	G8
34	Soil Attainment Demonstration	H
56	Preparation, Submission, and PADEP Approval of RACR	I
58	Site Restoration and Well Abandonment	J

- Each bidder should modify this sample Milestone Completion / Payment Schedule to reflect its proposed (anticipated) milestone completion schedule, as long as the proposed schedule meets the specified deliverable deadlines.

2. This sample table assumes that six Milestone A events will be needed, that eight Milestone G events will be needed, and 24 months of RAP implementation - individual bidder schedules will vary. Actual project and Site conditions shall govern schedule events and timing.

Please note that the selected consultant's work may be subject to ongoing review by the USTIF or its representatives to assess whether the proposed and completed work and the associated costs are reasonable, necessary, and appropriate. In order to facilitate review and reimbursement of submitted invoices by USTIF, project costs shall be invoiced following the milestone structure specified in the bid submitted by the selected consultant. Tracking incremental and cumulative costs by milestone will also be required to facilitate invoice review.

Unless otherwise noted by the bidder, each bid received is required to be good for a period of up to 120 days after its receipt. All bid pricing (fixed-prices and quoted unit prices) shall be good for the duration of the period of performance cited in the associated fixed-price Remediation Agreement.

ADDITIONAL BID PACKAGE REQUIREMENTS

Each submitted bid must include the following:

- A reasonable demonstration that the bidder: (i) understands the objectives of the project, (ii) offers a reasonable approach for achieving those objectives efficiently, and (iii) has reviewed the existing Site information provided in or attached to this RFB.
- Provide answers to the following questions regarding the bidder's qualifications and experience:
 - How many Chapter 245/250 sites has your company closed (i.e., obtained a Release of Liability under Act 2) in Pennsylvania?
 - How many Chapter 245/250 sites has your company or the proposed PA-licensed Professional Geologist (P.G.) and Professional Engineer (P.E.) closed (i.e., obtained a Release of Liability from PADEP) under either the SHS and/or the Site Specific Standard? *[NOTE: The Solicitor requires the work described herein to be completed under the responsible care and directly supervised by a P.G. and P.E. consistent with applicable regulations and licensing standards.]*
 - Whether there were or were not circumstances consistent with the cancellation provision of a signed contractual agreement, and has your firm ever terminated work under a fixed-price or pay-for-performance contract before attaining all of the project objectives and milestones? If yes, please list and explain the circumstances of each such occurrence.
- A complete firm fixed-price based on completion of the Tasks/Milestones specified herein (above) by completing the Standardized Bid Form (Attachment 3, included among the accompanying electronic files).
- A description and discussion of all level-of-effort and pricing assumptions.
- Indicate whether the bidder accepts the proposed fixed-price Remediation Agreement / terms and conditions (Attachment 1) or has provided a list of requested changes to the Fixed-Price Agreement.
- Provide a statement of applicable / pertinent qualifications, including the qualifications of any proposed subcontractors (relevant project descriptions are encouraged).
- Identify the proposed project team and provide resumes for the key project staff, including the proposed Professional Geologist and Professional Engineer of Record who will be responsible for endorsing work products prepared for PADEP review and approval.
- Provide a specific description of your proposed technical approach for each milestone, including detailed protocols for the handling, management, and proper

disposal of all investigation derived waste (e.g., monitoring well purge water, and excess soil boring cuttings). **If this milestone-by-milestone description fails to address a specific requirement of this RFB, it will be assumed that the bidder has accepted all the requirements specified herein by milestone.**

- Identify and sufficiently describe subcontractor involvement by milestone (if any).
- Provide a detailed schedule complete with specific by-month dates for completing all milestones, inclusive of reasonable assumptions regarding the timing and duration of Solicitor, USTIF, and PADEP reviews needed to complete milestone work. Details on such items as proposed meetings and work product submittals shall also be reflected in the schedule of activities.
- Describe your approach to working with PADEP from project inception to Site closure. Describe how PADEP would be involved proactively in the resolution of technical issues and how PADEP case team will be kept informed as to project status.
- Describe how the Solicitor and ICF / USTIF will be kept informed as to project progress and developments and how the Solicitor will be informed of, and participate in, evaluating potential alternatives / tradeoffs with regard to the work addressed by the Tasks/Milestones.

MANDATORY PRE-BID SITE MEETING AND FOLLOW-UP QUESTIONS

On **Thursday, January 3, 2013**, the Technical Contact will conduct a **mandatory pre-bid Site meeting** for a limited number of participants per firm at this property starting at 10:00 AM. Bidders must inform the Technical Contact at least three business days in advance of this date as to the number of participants and vehicles attending from your firm. Again, **any firm that does not attend this mandatory pre-bid Site meeting will not be eligible to submit a bid.** One participant per attending firm will be asked to enter their contact information on a sign-in sheet to facilitate future RFB-related information (e.g., responses to bidder questions).

Questions will be entertained as part of the pre-bid Site tour and every attempt will be made to answer questions at that time. Verbal questions and responses discussed during the Site meeting will also be distributed in writing to the attendees after the tour, as will the answers to any questions submitted in writing after the pre-bid Site meeting has been concluded. Consequently, bidders are strongly encouraged to ask clarifying questions sufficient to minimize the number of assumptions, special conditions, and exemptions referenced in the submitted bid.²⁵ Questions will be accepted by the Technical Contact up to seven days prior to the date when bids are due.

²⁵ As appropriate, the list of assumptions, special conditions, or exemptions will be discussed with the Solicitor. As part of that discussion, the USTIF may advise the Solicitor that some or all of the assumptions, special conditions, or exemptions that are likely to generate change orders may be the financial responsibility of the Solicitor.

ATTACHMENT 1

Fixed-Price Remediation Agreement

(This agreement is provided in an electronic form that does not permit modifications. An electronic version of the agreement that can be modified will be provided to the selected consultant at the appropriate time.)

ATTACHMENT 2

Project Documents Available Online

<u>Name of File Containing Document:</u>	<u>Document:</u>
Attachment 2a_Base Map 2002-181.pdf	Site Base Map
Attachment 2b_Well Logs1 2002-181.pdf	Select Site Well Logs
Attachment 2c_Soil Boring Logs 2002-181.pdf	Select Site Soil Boring Logs
Attachment 2d_Potable Supply Well PaGWIS Record.pdf	On-Site Potable Supply Well Record
Attachment 2e_PennDOT Figure ROW 2002-181.pdf	PennDOT Right-of-Way Figure
Attachment 2f_MW Abandonment Logs 2002-181.pdf	Select Monitoring Well Abandonment Records
Attachment 2g_20021125 Progress Report 2002-181.pdf	<i>Progress Report</i> , Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated November 25, 2002
Attachment 2h_20050405 MW Installation - Soil Sampling WP 2002-181.pdf	<i>Monitoring Well Installation and Soil Sampling Work Plan</i> , Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated April 4, 2005
Attachment 2i_SCR Update_Progress Report 2002-181.pdf	- <i>Site Characterization Report Update</i> , Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated December 6, 2004 -Letter to PADEP (Requesting Information Pertaining to the Site Characterization Progress Report), Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated February 25, 2005 - <i>Site Characterization Progress Report</i> , Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated October 21, 2005
Attachment 2j_20051130 SCR 2002-181.pdf	<i>Site Characterization Report</i> , Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated November 30, 2005
Attachment 2k_20081112 PennDOT 2002-181.doc	Letter from ICF to PennDOT, Doc's Deli-Licious, dated November 12, 2008

Attachment 2l_20100408 SSCR 2002-181 Parts 1-4	<i>Supplemental Site Characterization Report</i> , Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated April 8, 2010
Attachment 2m_20110307 4Q10 RAPR 2002-181.pdf	<i>Quarterly Report, Fourth Quarter 2010</i> , Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated March 7, 2011
Attachment 2n_20110617 SSCR Addendum and DEP Review.pdf Parts 1 & 2	<i>-Supplemental Site Characterization Report Addendum</i> , Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated June 17, 2011 <i>-PADEP Letter to Mr. John Daugherty (Tank Storage Program)</i> , Doc's Deli-Licious, dated June 30, 2011
Attachment 2o_20110818 2Q11 RAPR 2002-181.pdf	<i>Quarterly Report, Second Quarter 2011</i> , Doc's Deli-Licious, by Chambers Environmental Group, Inc., dated August 18, 2011
Attachment 2p_20111110 3Q11 RAPR 2002-181.pdf	<i>Quarterly Report, Third Quarter 2011</i> , Doc's Deli-Licious, by Letterle & Associates, LLC, dated November 10, 2011
Attachment 2q_20120213 4Q11 RAPR 2002-181.pdf	<i>Quarterly Report, Fourth Quarter 2011</i> , Doc's Deli-Licious, by Letterle & Associates, LLC, dated February 13, 2012
Attachment 2r_20120503 1Q12 RAPR 2002-181.pdf	<i>Quarterly Report, First Quarter 2012</i> , Doc's Deli-Licious, by Letterle & Associates, LLC, dated May 3, 2012
Attachment 2s_20120806 2Q12 RAPR 2002-181.pdf	<i>Quarterly Report, Second Quarter 2012</i> , Doc's Deli-Licious, by Letterle & Associates, LLC, dated August 6, 2012
Doc's Deli - Google Earth Photo 2002-181	Site Photo

*Request for Bid
USTIF #2002-0181(S)
Doc's Deli-Licious
Clark's Summit, Pennsylvania
December 12, 2012*

ATTACHMENT 3

Standardized Bid Form