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November 2, 2009

Mr. Jeff Ackerman, P.G.
Remediation and Redevelopment
State of Wisconsin Department of Natural Resources
South Central Regional Headquarters
3911 Fish Hatchery Road
Fitchburg, WI 53711-5397

**Re: Proposed Sub-Slab Depressurization System Installation
Work Plan and Cost Estimate
Former Robinson's Cleaners
1819 Milwaukee Street, Janesville, WI
WI BRRTS#02-54-248342**

Dear Mr. Ackerman:

On behalf of Mr. Ray Gehrig and Ms. Marcia O'Loughlin of the former Robinson's Cleaners, Environmental Forensic Investigations, Inc. (EnviroForensics) is pleased to provide the Wisconsin Department of Natural Resources (WDNR) with this proposed work plan and cost estimate to design and install a sub-slab depressurization system at the Former Robinson's Cleaners facility located at 1819 Milwaukee Street in Janesville, Wisconsin (Site). Previous indoor air samples collected within a leased tenant space at the Site (1817 Milwaukee Street; Checks for Cash) contained concentrations of perchloroethylene (PCE) and trichloroethylene (TCE) at levels in excess of the applicable standards. Pursuant to your letter dated October 22, 2009, this proposed Work Plan and cost estimate is intended to immediately reduce and maintain PCE and TCE concentration within the tenant space to acceptable levels.

I. SCOPE OF WORK

Based upon recent indoor air sampling at the Site, it appears that the soil or groundwater to indoor air exposure pathway is currently complete. EnviroForensics proposes the following scope of work to install a sub-slab depressurization system (SSDS).

Assumptions

The single level, commercial building is built on a slab-on-grade concrete floor of approximately 4,000 square feet. The exact construction methods employed during the pouring of the concrete slab floor are not known, but it is assumed that a granular fill (i.e. pea gravel or crushed stone) material is present beneath the concrete slab.

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Task 1. Sub-Slab Depressurization System

Negative-Pressure Testing

After visually inspecting the building for cracks, piping routing and suitable depressurization point locations, EnviroForensics will conduct a negative-pressure test to determine the appropriate number and spacing of depressurization points to achieve building-wide coverage as required by the WDNR. The negative-pressure test will consist of drilling a small-diameter hole at a limited number of potential depressurization points and monitoring points. A micro-manometer will be used to establish baseline pressure conditions in the sub-slab. A negative pressure will then be applied at one or more points in the sub-slab space and pressure readings will again be collected. A micro-manometer will be used to take the readings. After the readings have been made and a suitable design determined a call will be placed to the client's representative to discuss the findings and get approval to proceed with installation. The results of the negative-pressure test will be used to create the final SSDS design.

SSDS Installation

Based on experience and the assumptions presented above, it is anticipated that the SSDS will consist of three (3) depressurization points, piped above grade to a common header, which will be equipped with a single blower and discharge. If the results of the negative-pressure testing

Depressurization points will be installed through the concrete floor and the sub-slab material will be removed to facilitate air flow. Vertical piping from the depressurization points will be 3-inch schedule 40 PVC. A 4-inch header pipe will be routed to connect all of the pickup points. The header will then exit the building wall to the outside. The blower fan will be installed outside and the exhaust routed to a minimum of three (3) feet above the roof-line. Each depressurization point will be equipped with a visible u-tube manometer.

Blower Specifications

The blower will be of the variety designed and fabricated for use in radon mitigation systems, suitable for outside installation. The housing will be factory sealed and caulked to prevent leakage. The blower will be speed controllable with automatic reset thermal overload protection. The blower included in the base design for this project will have the capacity to move 70 cubic feet per minute (CFM) of air at 2 inches of water pressure, or 210 CFM at 1 inch of water pressure. The blower will move air with maximum pressure of 2.6 inches of water. The blower will be directly wired to a 115 volt, 60 Hz, breaker and will consume from 150 watts to a maximum of 1.32 amps. A licensed electrician will be contracted to make the electrical connections to the blower.

The final determination of the appropriate blower size will be made following negative-pressure testing and system design. If a blower capable of greater capacity is required, you will be notified immediately of any additional costs.

Floor Sealing

To maximize the effectiveness of the SSDS, a visual inspection of the concrete floor will be conducted and visible cracks will be sealed with an appropriate caulk product. If cracks are over ¼-inch in size, a foam backer rod may be utilized to assist the sealing process. It is assumed that no cracks greater than ¼-inch in width are present and that no significant openings or wholes are present in the floor.

Performance Testing

Sub-slab pressure readings will be collected following system start up of the system using the vacuum testing ports. If the readings indicate that the system is effectively creating a negative pressure beneath the entire concrete floor, the testing ports will be sealed and EnviroForensics will demobilize. If the readings indicate that additional depressurization points may be required, you will be contacted with a recommended course of action and any associated additional costs.

Reporting

Following the completion of the SSDS installation, a letter report will be prepared documenting the work performed. The report will contain the results of the negative-pressure testing, a scaled, as-built drawing of the SSDS system, final blower specifications, and the results of the final performance testing.

Task 2. Indoor Air Monitoring

Following the operation of the SSDS for approximately one (1) month, and indoor air monitoring event will be conducted to evaluate the effectiveness of the SSDS in reducing concentrations of PCE and TCE in the occupied spaces. During the monitoring event, one (1) indoor air sample will be collected from the tenant space and one (1) ambient outdoor air sample will be collected.

Air sampling will be performed per applicable methodology in the following guidance documents:

- *Vapor Intrusion Pathway: A Practical Guideline*; Interstate Technology & Regulatory Council (ITRC), January 2007
- *Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils* (EPA 530-D-02-004); U.S. EPA Office of Solid Waste and Emergency Response (OSWER), November 2002)

- *Chemical Vapor Intrusion and Residential Indoor Air; Guidance for Environmental Consultants and Contractors*; State of Wisconsin Department of Health and Family Services, February 2003.

Samples will be collected using 6-Liter Suma canisters, over an 8-hour time frame during normal working hours. The outdoor sample will be collected from an outdoor ambient air location deemed upwind from the facility. Data will be assessed from the nearest fixed weather station throughout the 8-hour sampling period to gather data including: temperature, wind speed, wind direction, humidity, barometric pressure, and rainfall. Weather data and its possible affects on the sampling results will be assessed and discussed in the report.

A total of two (2) Suma canisters will be submitted to Pace for analysis of VOCs utilizing U.S. EPA Method TO-15. All samples will be shipped overnight under appropriate chain-of-custody procedures.

Monitoring Reporting

The results of subsequent monitoring events will be submitted in a brief data transmittal letter to the WDNR.

II. COST ESTIMATE

The cost estimate to complete Task 1 and 2 is \$11,330, assuming the base scope of work for the SSDS is deemed appropriate following negative-pressure testing. An itemized estimate is presented in the attached Table 1, which includes unit rates for potential SSDS modifications. The required DERF bid sheets are also attached.

III. SCHEDULE

The objective of this work plan is to complete Task 1 by November 30, 2009. It is anticipated that the proposed work can be initiated within 1-week of authorization from the WDNR.

Standard laboratory turn times will be utilized during monitoring sampling, which will provide analytical results within 2-weeks of sample collection. The findings will be verbally communicated to the WDNR immediately upon receipt of the analytical report and the letter report will be submitted within 1-week.

IV. CERTIFICATIONS

EnviroForensics certifies that the work conducted during implementation of this work plan will comply with applicable requirements under WAC Chapters NR 169 and NR 700 to 728. Upon request, EnviroForensics will make available to the WDNR documents and records pertaining to the proposed services. This proposal was not prepared in collusion with any other consultant submitting a bid on the Site.

A copy of EnviroForensics' certificate of insurance is attached, which demonstrates compliance with NR 169.30(9)(b).

V. AUTHORIZATION

If you are in agreement with the proposed scope of work and cost estimate presented above, please sign below as authorization to proceed under the Wisconsin Dry Cleaner Environmental Response Program (NR 169).

Mr. Ray Gehrig, c/o Robin, Inc. dba Robinson's Cleaners
In acknowledgement of the attached Terms and Conditions

Date

Mr. Jeff Ackerman, PG, WDNR

This approval does not guarantee the reimbursement of costs. Final determination regarding the eligibility of costs will be determined at the time of claim review.

Date



November 2, 2009

Mr. Jeff Carnahan, LPG, EnviroForensics

Date

Attachments

Copy:

Mr. Ray Gehrig, 5110 North Conner Rd, Janesville, WI 53548

Ms. Marcia O'Loughlin, Robin Inc., P.O. Box 348, Janesville, WI 53547



Table 1.

Itemized Cost Estimate

Table 1.
Proposed Vapor Mitigation Work Plan and Cost Estimate
WI BRRTS#02-54-248342

| Task 1. Sub-Slab Depressurization System | | | | | |
|---|------------------------|-----------------|-------------|------------------|-----------------|
| <u>Labor Service</u> | <u>Classification</u> | <u>Quantity</u> | <u>Unit</u> | <u>Unit Rate</u> | <u>Subtotal</u> |
| Project Setup, Oversight, QA/QC | Senior Project Manager | 8 | hr | \$150 | \$1,200 |
| SSDS Installation Activities Oversight | Associate Scientist | 18 | hr | \$90 | \$1,620 |
| Data Evaluation and Tabulation | Associate Scientist | 6 | hr | \$90 | \$540 |
| Data Evaluation | Senior Project Manager | 4 | hr | \$150 | \$600 |
| Report Preparation | Associate Scientist | 8 | hr | \$90 | \$720 |
| Drafting | Draftsman | 4 | hr | \$85 | \$340 |
| Additional Depressurization Point Oversight (up to two) | Associate Scientist | | ea | \$180 | \$0 |
| Subcontractor Services | | | | | |
| Negative-Pressure Testing | | 1 | LS | \$750 | \$750 |
| SSDS Installation and Testing (assuming base design) | | 1 | LS | \$2,800 | \$2,800 |
| Electrical Hookup | | 1 | LS | \$300 | \$300 |
| Additional Depressurization Point (up to two) | | | LS | \$400 | \$0 |
| Blower Upgrade | | | LS | \$250 | \$0 |
| | | | | Subtotal | \$8,870 |

| Task 2. Indoor Air Monitoring and Reporting | | | | | |
|--|------------------------|-----------------|-------------|------------------|-----------------|
| <u>Labor Service</u> | <u>Classification</u> | <u>Quantity</u> | <u>Unit</u> | <u>Unit Rate</u> | <u>Subtotal</u> |
| Project Oversight | Senior Project Manager | 3 | hr | \$150 | \$450 |
| Project Preparation | Associate Scientist | 3 | hr | \$90 | \$270 |
| Sample set-up, monitoring, collection & handling | Associate Scientist | 10 | hr | \$90 | \$900 |
| Data Evaluation | Senior Project Manager | 2 | hr | \$150 | \$300 |
| Letter Report Preparation | Associate Scientist | 4 | hr | \$90 | \$360 |
| Direct Costs | | | | | |
| Laboratory Analysis | TO-15 | 2 | ea | \$400 | \$800 |
| Shipping | Overnight UPS | 1 | ea | \$50 | \$50 |
| Expendables | Tubing, fittings, etc. | 1 | LS | \$50.00 | \$50 |
| | | | | Subtotal | \$3,180 |

Project Total **\$12,050**



Terms and Conditions

ENVIROFORENSICS' GENERAL TERMS and CONDITIONS

TERMS- Invoices for services will be submitted by Environmental Forensics Investigations, Inc. (EnviroForensics) on a monthly basis or when the work is completed. Invoices will be due within 30 days of receipt.

SAMPLES - All soil samples will be disposed of 30 days after issuance of our report unless CLIENT advises EnviroForensics otherwise. Upon request, EnviroForensics will deliver samples to CLIENT at CLIENT's expense, or EnviroForensics will store them for an agreed storage charge. If the samples contain hazardous materials, the samples shall be deemed CLIENT's property at all times and CLIENT shall be responsible for the disposal of such samples.

RIGHT OF ENTRY - CLIENT shall provide for EnviroForensics' right to enter from time to time property owned by CLIENT and/or other(s) in order for EnviroForensics to fulfill the scope of service indicated hereunder. EnviroForensics will use reasonable care to minimize damage to property. However, CLIENT understands that use of exploration equipment may unavoidably cause some damage, the correction of which is not part of this AGREEMENT. If EnviroForensics is asked to restore the property, EnviroForensics will charge an additional amount to so restore the property.

BURIED UTILITIES - CLIENT will furnish to EnviroForensics information identifying the type and location of utility lines and other man-made objects beneath the site's surface to the extent CLIENT has such information. EnviroForensics will take reasonable precautions to avoid damaging these man-made objects. CLIENT agrees to waive any claim against EnviroForensics and to defend, indemnify and hold EnviroForensics harmless from any claim or liability for injury or loss allegedly arising from EnviroForensics' damaging underground utilities or other man-made objects that were required to be called to EnviroForensics' attention or which were not properly located on plans furnished to EnviroForensics. EnviroForensics shall contact IUPPS or other appropriate utility locating firms or entities to determine the location of underground utilities prior to commencement of work.

LIMITATIONS OF LIABILITY - CLIENT hereby agrees, that to the fullest extent permitted by law, EnviroForensics' total liability to CLIENT, all consultants, contractors or subcontractors for any and all injuries, claims, losses, expenses or damages whatsoever, including without limitation, attorneys fees and costs, arising out of or in any way relating to the services covered by this AGREEMENT from any cause or causes including but not limited to EnviroForensics' negligence, errors, omissions, strict liability, breach of contract, or breach of warranty shall not exceed the greater of the total amount paid by the CLIENT for the services of EnviroForensics under this contract or \$500,000, whichever is greater. CLIENT is protected for errors and omissions by an insurance policy with limits of \$1,000,000 per occurrence, \$1,000,000 aggregate.

NO SPECIAL OR CONSEQUENTIAL DAMAGES - CLIENT and EnviroForensics agree that, to the fullest extent permitted by law, EnviroForensics shall not be liable to the CLIENT for any special indirect or consequential damages whatsoever, whether caused by EnviroForensics' negligence, errors, omissions, strict liability, breach of contract, breach of warranty or other cause or causes whatsoever.

INDEMNIFICATION - To the fullest extent permitted by law, CLIENT agrees to defend, indemnify and hold EnviroForensics, its agents, subcontractors and employees harmless from and against any and all claims, defense costs, including attorneys' fees, damages and other liabilities arising out of or in any way related to EnviroForensics' reports or recommendations concerning this AGREEMENT, EnviroForensics' presence on the project property, or the presence, release or threatened release of asbestos, hazardous substances or pollutants on or from the project property, provided the CLIENT shall not indemnify EnviroForensics against liability for damages to the extent directly caused by the sole negligence or intentional misconduct of EnviroForensics, its agents, subcontractors or employees.

GENERAL LIABILITY INSURANCE AND LIMITATION - EnviroForensics is protected by Workmen's Compensation and Employer's Liability Insurance, and by Public Liability Insurance for bodily injury and property damage with a combined limit of \$1,000,000, and will furnish certificates thereof upon request. EnviroForensics assumes the risk of damage to its own supplies and equipment proximately resulting from EnviroForensics' sole negligence or willful misconduct. If CLIENT's contract or purchase order places greater responsibilities upon EnviroForensics or requires further insurance coverage, EnviroForensics, if specifically directed by CLIENT, will take out additional insurance (if procurable) at CLIENT's expense; but EnviroForensics shall not be responsible for property damage from any cause, including fire, and explosion, beyond the amounts and coverage of EnviroForensics' insurance.

STANDARD OF CARE - Services performed by EnviroForensics under this AGREEMENT will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, expressed or implied, and no warranty or guarantee is included or intended in this AGREEMENT, or in any report, opinion, document or otherwise.

DISCOVERY OF UNANTICIPATED HAZARDOUS MATERIALS - If pollutants are discovered that pose unanticipated risks while EnviroForensics is performing these services, it is hereby agreed that the scope of services, schedule, and the estimated project cost will be reconsidered and that this contract shall immediately become subject to renegotiation or termination. In the event that the AGREEMENT is terminated because of the discovery of pollutants posing unanticipated risks, it is agreed that EnviroForensics shall be paid for our total charges for labor performed and reimbursable charges incurred to the date of terminations of this AGREEMENT, including, if necessary any additional labor or reimbursable charges incurred in demobilizing. CLIENT also agrees that the discovery of unanticipated hazardous substances may make it necessary for EnviroForensics to take immediate measures to protect human health and safety. EnviroForensics agrees to notify CLIENT as soon as possible should unanticipated hazardous substances or suspected hazardous substances be encountered. CLIENT authorizes EnviroForensics to take measures that in EnviroForensics' sole judgment are justified to preserve and protect the health and safety of EnviroForensics' personnel and the public. CLIENT agrees to compensate EnviroForensics for the additional cost of working to protect employee's and the public health and safety.

AQUIFER CONTAMINATION - Subsurface sampling may result in unavoidable contamination of certain subsurface areas, as when a probe or boring device moves through a contaminated area, linking it to an aquifer, underground stream, or other aqueous body not previously contaminated and capable of spreading hazardous materials off-site. Because nothing can be done to eliminate the risk of such an occurrence, and because subsurface sampling is a necessary aspect of the work which EnviroForensics may perform on CLIENT's behalf, CLIENT waives any claim against EnviroForensics, and agrees to defend, indemnify and hold EnviroForensics harmless from any claim or liability for injury or loss which may arise as a result of alleged cross-contamination caused by sampling. CLIENT further agrees to compensate EnviroForensics for any time spent or expenses incurred by EnviroForensics in defense of any such claim, in accordance with EnviroForensics' prevailing fee schedule and expense reimbursement policy.

DISPUTES - If a dispute arises out of or relating to this AGREEMENT or the breach thereof that cannot be settled through direct discussions, the parties agree to first endeavor to settle the dispute in an amicable manner by mediation under the Construction Industry Mediation Rules of the American Arbitration Association, or other similar organization. If a lawsuit is filed and legal or other costs are incurred, it is agreed that the prevailing party shall be entitled to recover all reasonable costs incurred in the defense of the claim, including staff time at current billing rates, court costs, attorney's fees and other claim-related expenses.



Certificate of Insurance