

MAY 12 2004

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

STATE OF ILLINOIS  
Pollution Control Board

IN THE MATTER OF: )  
)  
PROPOSED AMENDMENTS TO REGULATION OF ) R04-22  
PETROLEUM LEAKING UNDERGROUND STORAGE ) (Rulemaking - Land)  
TANKS (35 Ill. Adm. Code 732) )

---

IN THE MATTER OF: )  
) R04-23  
PROPOSED AMENDMENTS TO REGULATION OF ) (Rulemaking - Land)  
PETROLEUM LEAKING UNDERGROUND STORAGE )  
TANKS (35 Ill. Adm. Code 734) )

**NOTICE OF FILING**

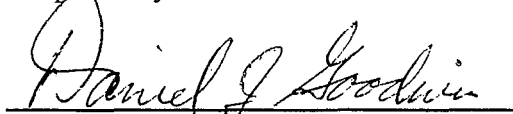
Dorothy Gunn, Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 W. Randolph, Suite 11-500  
Chicago, Illinois 60601-3218

Marie Tipsord  
Illinois Pollution Control Board  
James R. Thompson Center  
100 W. Randolph, Suite 11-500  
Chicago, Illinois 60601-3218

SEE ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Pollution Control Board the Prefiled Testimony of Daniel J. Goodwin, P.E. on Behalf of the Consulting Engineers Council of Illinois, a copy of which is herewith served upon you.

Respectfully submitted,



Daniel J. Goodwin, P.E.  
SECOR International, Incorporated  
400 Bruns Lane  
Springfield, Illinois 62702  
(217) 698-7247

Date: May 11, 2004

**RECEIVED**  
CLERK'S OFFICE

**TESTIMONY OF DANIEL J. GOODWIN, P.E. ON BEHALF OF**  
**THE CONSULTING ENGINEERS COUNCIL OF ILLINOIS**

MAY 12 2004

STATE OF ILLINOIS  
Pollution Control Board

My name is Daniel J. Goodwin. I reside at 1308 Ravenswood Drive in Springfield, Illinois. I am a Licensed Professional Engineer in Illinois and I am employed as a Principal Engineer by SECOR International, Incorporated, an environmental consulting firm with more than 700 employees at over 60 offices throughout the United States, including Illinois offices in Lombard and Springfield.

I am also Vice President of the Consulting Engineers Council of Illinois (CECI) and a long-time member of CECI's IEPA Liaison Committee. I am here today primarily to testify on behalf of CECI, although I may occasionally express my individual view on some points, in which case I shall make it a point to identify any such individual views as such.

CECI represents approximately 231 member professional engineering firms located throughout Illinois. Leaking underground storage tank response and corrective action represents an important market for a sizeable fraction of our members, and the largest dollar-volume client segment for several of our members. Increasingly, over the last four years or so, members who are involved in assisting clients with obtaining reimbursement for corrective action costs associated with underground storage tank releases have voiced concern over cuts being made in corrective action budgets by IEPA in reliance on an undisclosed internal guideline on maximum amounts or unit rates that would be deemed "reasonable". In some cases this resulted in a direct financial loss to the consulting firm, but even more often it created an impression with the client that

the consulting firm was engaged in price-gouging. Thus, CECI was pleased when, in October 2002, the Agency asked for input into a major rewriting of the LUST regulations, especially those pertaining to reimbursement.

In response to the Agency's request, CECI joined with the Illinois Petroleum Marketers Association in forming an "Ad Hoc Work Group on LUST Reimbursement Reform", comprised of representatives of member firms of the two organizations having substantial working experience with the LUST program, including reimbursement, as it has actually been implemented over the last 10 years. The members of the Ad Hoc Work Group met more than a dozen times between October 2002 and April 2003. The work product was a series of detailed analyses and consensus recommendations to the Agency that were presented in meetings with Agency representatives in the early months of 2003.

I am pleased to be able to state that the Agency's proposals are consistent with much of the basic structure of the Ad Hoc Work Group's suggestions. Not unexpectedly, there are also some very significant differences. It is my purpose today to focus on some of those differences with the hope that the Agency's proposal can be improved before final adoption by the Board.

I also want to state for the record that, due to restrictions arising from anti-trust law, neither the Ad Hoc Work Group, nor CECI as an organization will advocate any specific price, unit rate, or lump sum reimbursement dollar amount in this proceeding. Our organizational testimony will be limited to the structure of the reimbursement provisions and the principles and procedures for

implementing them. Nevertheless, individual firms and their employees are free to express such views, and CECI has encouraged those of its members for whom LUST reimbursement is an important issue to participate in these proceedings.

### Stage 1 Site Investigation

The Ad Hoc Work Group recommended the adoption of a standardized Stage 1 Site Investigation as contemplated in Section 734.315. A copy of the Work Group's recommendation in this regard is attached to this statement as Attachment A. While we are glad that the Agency agrees with this concept, there is a feeling among the group's members that the Agency's proposal is overly prescriptive, and should leave more of the details of boring and monitoring well location to be decided by the Licensed Professional Engineer or Licensed Professional Geologist responsible for the work. It is believed that too many situations will not be well served by the Agency's "one size fits all" approach to location of borings and wells.

### Subpart H

The general structure of the reimbursement limitations in the Agency's proposed Subpart H is consistent with the recommendations of the Ad Hoc Work Group, although this should not be construed as agreement with specific unit prices or dollar limits. Apart from such specifics, possibly the most important problem with the Agency's proposal from the viewpoint of the professional consulting firms is the lack of clear delineation of the scope of services that may

be included in each of the phases of the project for which reimbursement limits are set forth in Proposed Sections 732.845 and 734.845. The Ad Hoc Work Group provided the Agency with detailed lists of individual tasks that might be required as part of each phase of the project (except Site Investigation/Classification). These lists are attached to this statement as Attachment B. It is CECI's recommendation that these detailed lists be incorporated into the regulation for the purpose of better delineating the various tasks that may legitimately be a part of a given phase of the project. Such tasks must therefore be allowed for in the establishment of either a lump sum reimbursement amount or a limit on time and materials reimbursement.

#### Maximum Payments Versus Lump Sum Payments

As drafted, the Agency proposal seems to set maximum reimbursement amounts for the various phases of a project, with the implication that it will still be necessary to detail individual expenditures on a time and materials basis in the budget and reimbursement claim. If actual charges for a phase do not reach the specified maximum, only the lesser amount will be paid by the Agency.

This approach defeats the Agency's stated purpose of streamlining the review of budgets and claims, so that it is not necessary to account for the cost associated with "every pair of gloves", to cite an example often used by Agency staff. It is not the lump sum payment method the Agency has said it wished to make a part of the reimbursement program. It is a continuation of the wasteful bean-counting approach used historically, only with an unacceptable new wrinkle. Unlike a true lump sum method, this plan puts the owner/operator and consultant in the

position of having the worst of both worlds—reimbursement limited by actual charges incurred when things go well, and a cap on reimbursement when things do not go so well.

The Proposed language should be rewritten to provide clearly that the reimbursement amount for specified phases or categories of work within a phase is to be on a lump sum basis, and no detailed cost justification is required. The Ad Hoc Work Group developed a list of project phases with the corresponding recommended payment method for each. That list is attached to this statement as Attachment C. I urge the Board to consider adopting these payment methods in lieu of the Agency's proposal.

#### Atypical Situations

The Agency has proposed Sections 732.855 and 734.855 to allow for reimbursement for "unusual or extraordinary expenses". The proposed language offers little guidance on when such expenses might be justified, in effect leaving that decision to the discretion of the individual Agency reviewer. The Ad Hoc Work Group developed guidance that could be used for identifying "atypical situations" for which "unusual or extraordinary expenses" might be warranted. This guidance is attached to this statement as Attachment D. It is recommended that this additional guidance be made a part of the regulation.

#### Personnel Titles and Rates

The list of personnel titles and qualifications contained in the Agency's proposed Appendix E to both Part 732 and Part 734 is similar, but not identical, to the list proposed by the Ad Hoc Work Group. A copy of the Work Group's

proposal accompanies this statement as Attachment E. The most notable difference between the two lists is the omission of the "Principal" classification. It is our view that such a classification should be included, because project oversight and quality assurance of work products by a firm Principal is an important management practice for many of CECI's member firms. It is our view that such participation by Principals enhances the firm's overall performance and adds value to its work, and that a reasonable number of hours charged to a project by a Principal should be reimbursable at a separate, higher Principal's hourly rate.

#### Updating of Rates

An important problem inherent in the Agency's proposals regarding reimbursement is the need to update lump sums and maximum allowable rates stipulated in the regulations to take account of increased prices due to inflation or other external factors. While the Agency has included a provision for this, I wish to point out that, under the Agency's proposal, by the time the Pollution Control Board could take final action on the Agency's proposed updating of rates, half the data on which the Agency would be relying would be more than two years old. Furthermore, if adopted as proposed, the rates established in this proceeding will be based on data that is as much as seven years old, and those rates would continue in effect for another three years or thereabout. While CECI has no specific solution to this problem to offer at this time, it may be that the best solution would involve establishing procedures and criteria for setting the allowable lump sums and rates in the Board regulations, and directing the

Agency to update the amounts in accordance with those procedures and criteria at least annually, and to post the updated amounts on its Web site.

#### Review of Agency Reimbursement Determinations

It is clear that a procedural problem exists in the manner in which the Agency has handled disallowance of costs in proposed budgets and budget amendments that has contributed to the sense on the part of many consultants that the reimbursement system is "broken". It has been the Agency's practice in recent years when disallowing costs, due to inconsistency with the so-called "rate sheet" or for other reasons, to simply notify the owner/operator and the consultant of the disallowance with only the vaguest of explanations of the reason for the disallowance, and with no opportunity for discussion with either the individual Agency project manager or with LUST program managers before the determination is made final. This means that any appeal must be taken to the Pollution Control Board, a step that is usually far too costly to be warranted for the sake of recovering a few hundred or even a few thousand dollars in disallowed costs. One way this could be remedied would be to mandate that the Agency provide its proposed disallowance determination to the owner/operator with a specific explanation of the reasons for the disallowance. The owner/operator would be given an opportunity to provide additional justification for the costs in question and to meet with LUST program representatives to discuss the matter before a final decision would be rendered by the Agency. While it would be unrealistic to expect this procedure to resolve all disputes, I believe that, in combination with the recent elimination of the undisclosed rate



sheet, it would facilitate resolution of many such disagreements, and would have the additional benefit of reducing the number of appeals that are filed with the Board, only to be settled with the Agency and subsequently withdrawn or dismissed.

It has also been suggested that a "peer review" panel be established to provide review of Agency disallowance determinations prior to their finalization. This panel would include designated Agency LUST program supervisors and two or more members who are not Agency employees and who are qualified by training and experience to determine the reasonableness of LUST budget proposals. These members' outside perspective could prove very beneficial to the Agency in maintaining a link to the "real world" problems experienced by consultants and other providers of services and materials for LUST corrective action.

Speaking for myself, I believe both the Agency review procedure and the peer review panel can be implemented by the Agency without Board authorization or direction. Nevertheless, I do want these ideas entered on the record of these proceedings because they are directly related to the problems being addressed and it would be helpful to the participants in these proceedings to know what, if anything, the Agency intends to do with these proposals.

**STAGED SITE INVESTIGATION**

At most sites, multiple “stages” are required to complete a Site Investigation. A staged Site Investigation strategy possesses the principal beneficial characteristic of allowing both consultant and Agency review and evaluation of site-specific data prior to determining the necessary scope and specifications of subsequent stages of work required to satisfy Site Investigation requirements. In general, all Site Investigations should start at or near the source area and extend outward in stages until the extent and relative distribution of contaminants in the subsurface has been adequately defined.

**Standard Stage 1 Site Investigation**

A standard Stage 1 Site Investigation (Source Area Evaluation) for a LUST site can be conducted immediately upon discovery of a release, according to the scope of work and reimbursement limits established herein, without submitting a plan and / or budget for Agency review and approval.

**Stage 1 Soil Investigation**

a) Stage 1 Site Investigation soil boring specifications:

- 1) One soil boring should be advanced through the entire vertical extent of contamination, based on field observations and / or field screening for organic vapors, on each side of each independent tank field, where possible. (*Maximum of four (4) borings per tank field.*)
- 2) One soil boring should be advanced through the entire vertical extent of contamination, based on field observations and / or field screening for organic vapors, at or near each dispenser, where possible.

**Note:** *The total maximum allowable number of borings is dependent on the number of tank fields and dispensers. Overhead structures (canopies, power lines, etc.) and / or underground structures (utilities, piping, etc.) may limit the proximity of borings to tank field(s) and / or dispenser(s).*

b) Stage 1 Site Investigation soil sampling specifications:

- 1) Soil borings shall be logged continuously in accordance with 734.425 (c), and field screened for organic vapors at intervals no greater than every thirty (30) inches.

- 2) One (1) soil sample for laboratory chemical analysis of applicable indicator contaminants shall be collected from a representative location per five (5) foot boring interval, or fraction thereof, beginning at the ground surface and extending through the entire depth of the boring.
  - A) If contamination is indicated throughout any five (5) foot interval, or if evidence of contamination begins and ends within any five (5) foot interval, then the sample shall be collected from the area exhibiting the highest degree of contamination based on field observations and / or field screening for organic vapors.
  - B) If evidence of contamination is limited to either an upper or lower portion of any five (5) foot interval, based on field observations and / or field screening for organic vapors, then the sample may be collected from a location representative of conditions in the majority of the five (5) foot interval as long as the sample from at least one subsequent or preceding boring interval is collected from the area exhibiting the highest degree of contamination based on field observations and / or field screening for organic vapors.

**Note:** *If laboratory chemical analysis indicates that the sample obtained from any five (5) foot interval exceeds Tier 1 remediation objectives as specified in 35 Ill. Adm. Code 742 for any applicable indicator contaminant(s), then that entire interval will be considered impacted for purposes of defining extent of contamination. If laboratory chemical analysis indicates that the sample obtained from any five (5) foot interval meets Tier 1 remediation objectives as specified in 35 Ill. Adm. Code 742 for any applicable indicator contaminant(s), then the contaminant zone will be considered to extend no further than that sample location for purposes of defining extent of contamination.*

- 3) If no evidence of contamination is observed in a specific boring, based on field observations and / or field screening for organic vapors, then a maximum of two (2) representative soil samples shall be collected from that boring for laboratory chemical analysis of applicable indicator contaminants.
  - A) One (1) sample shall be collected at or near the soil water interface.
  - B) One (1) sample shall be collected at or immediately below the elevation corresponding to the source of the release (i.e. piping, UST, spill / overflow), if a specific source can be determined prior to or during the Stage 1 Site Investigation. If a specific source cannot be determined, then the sample

should be collected within the upper three (3) feet of the soil column.

**Note:** *Wall and floor samples from the excavation can be used to satisfy a portion of the standard Stage 1 Site Investigation sampling requirements, if soil excavation and disposal have been conducted with tank removal.*

## Stage 1 Ground Water Investigation

### c) Stage 1 Site Investigation ground water monitoring well specifications:

- 1) If ground water is encountered and / or cannot be excluded as a potential pathway, a maximum of five (5) monitoring wells shall be installed within 200 feet of the UST system(s) or at the property boundary.
  - A) One (1) interior monitoring well shall be installed at or near the location of highest contamination based on field observations and / or field screening for organic vapors in the source area soil borings.
  - B) Four (4) perimeter monitoring wells shall be installed based roughly on field screening results from the interior soil borings. An attempt shall be made to locate perimeter monitoring wells in such a way as to provide a reasonable likelihood of detecting contaminant migration, and accurately determining direction of groundwater flow.
- 2) Monitoring wells shall be constructed and sampled in accordance with 734.430. The screened interval for each well should be selected to coincide with the zone of greatest contamination encountered at or below the water table, based on field observations and / or field screening for organic vapors.
- 3) Soil sampling from monitoring well borings shall be conducted in accordance with (b).

**Note:** *Exclusion of ground water as a potential pathway for purposes of Stage 1 Site Investigation will be considered only if Tier 1 soil remediation objectives as specified in 35 Ill. Adm. Code 742 for all applicable indicator contaminant(s) have been met, and there is no evidence that contaminated soils may be or may have been in contact with ground water.*

### d) Additional Stage 1 Site Investigation specifications:

- 1) Site-specific Tier II physical soil parameters, obtained via laboratory analysis and field measurement, as specified in 742.APPENDIX C, Table F shall be determined.
- 2) Samples for site-specific Tier II physical soil parameter analysis shall be collected in accordance with 35 Ill. Adm. Code 742.610 (b).

### **Staged Site Investigation Documentation**

If the results of the Stage 1 Site Investigation can adequately identify the nature, concentration, direction of movement and extent of applicable indicator contaminants in excess of Tier 1 remediation objectives as specified in 35 Ill. Adm. Code 742, as well as, any significant features of the site and surrounding area that may affect contaminant transport and risk to human health and safety and / or the environment, then a Site Investigation Completion Report documenting the results of the Stage 1 Site Investigation must be submitted in accordance with 734.315.

If additional stages of Site Investigation are needed to address site specific conditions, such as extent and relative distribution of on-site and / or off-site contamination and possible migration of applicable indicator contaminants in excess of Tier 1 remediation objectives as specified in 35 Ill. Adm. Code 742, along natural or man made pathways which could not be addressed based on the results of previous Site Investigation stage(s), then a subsequent Site Investigation Plan and Budget must be submitted in accordance with 734.310, which documents the results of the preceding Site Investigation stage. Costs associated with subsequent stages of Site Investigation will be reimbursed on a time and materials basis.

Documentation of any Site Investigation stage must be submitted to the Agency along with or prior to any requests for payment from the Fund for costs associated with that Site Investigation stage. Documentation of any Site Investigation stage shall include at minimum:

- a) A narrative description of field activities including sampling methods;
- b) Analytical results in tabular format;
- c) Soil boring logs;
- d) Monitoring well completion reports;
- e) Laboratory reports and certification;
- f) Results of hydraulic conductivity test(s) (if applicable);
- g) Monitoring well elevations and water level measurements in tabular format;
- h) A geologic cross-section, to scale, constructed through the source area;
- i) Site map(s) to scale and oriented north showing:

- 1) UST system(s) and excavation;
- 2) Product and lines and dispensers;
- 3) Underground utilities and subsurface structures;
- 4) Nearby structures (buildings, roads, etc.);
- 5) Location of soil borings;
- 6) Location of monitoring wells;
- 7) Excavation limits and sample locations (if applicable);
- 8) Property boundaries and
- 9) Ground water flow direction.

**ATTACHMENT B**

**Early Action Task List**

**20 Day Certification and 45 Day Report Preparation Tasks**

Set up project file (obtain general project data: address, contact info, etc.)

Set up project status tracking sheet

Prepare site health and safety plan

Prepare 20 Day certification

Call J.U.L.I.E and / or municipality for utility locate

Prepare CAD map(s)

FOIA IEPA and / or OSFM records

Obtain well records from ISGS and ISWS

Review well records and prepare well location map

Obtain local information (i.e.. Sanborn maps, Aerial overlays, etc.)

Determine expected local site geology (subsurface soil conditions)

Prepare cross section

Draft 45 Day report (tables and narrative), provide data concerning:

*Nature and estimated quantity of release*

*Surrounding populations*

*General water quality*

*Use and approx. location of wells potentially affected by the release*

*General subsurface soil conditions*

*Locations of subsurface sewers*

*Climatological conditions*

*Past, present and potential future land use*

*What was done to evaluate presence of contamination*

*Actions taken to prevent further release of substance into environment*

*Analytical / screening results (in tabular format)*

*UST information (in tabular format)*

Word processing

Prepare and describe photos

45 Day report review by PM or other senior staff

General correspondence with client and Agency

Project update to client

Mail draft 45 Day report to O/O for review and signature

Make Copies of final 45 Day report for distribution

Deliver completed 45 Day report to IEPA and O/O

**Initial site visit by PM or other senior staff**

**Site visit by technician or scientist to prepare site map(s)**

**Ad Hoc Committee's Total Office Labor Hour Estimate: 60**

**Other Direct Expenses**

Copy charges /  
postage  
Record costs / postage

Document costs

Film / photo finishing

Postage

Postage

Copy charges

Postage

**Daily charges**

**Daily charges**

**Other Direct Expenses**

**Early Action UST Removal / Excavation Tasks**

Prepare waste profile (arrange for landfill approval)

Determine EA excavation limits

Arrange for excavator (tank removal contractor)  
 Prepare waste manifests (or tracking forms)  
 Project scheduling  
**Collect sample for waste profile (landfill approval)**  
**Field oversight and sampling (UST removal / EA excavation)**

Daily charges  
 Daily charges

<b>Ad Hoc Committee's Total Office Labor Hour Estimate: 12</b>
--

**Free Product Recovery Task List**

Free Product Recovery Preparation Tasks

**Time &  
 Material**

Free Product Recovery Fieldwork

**Daily charges**

Free Product Recovery Report Preparation Tasks

Direct  
 Expenses

Draft free product recovery report (tables and narrative), provide data concerning:

- Name(s) of person(s) responsible for implementing free product recovery*
- Estimated quantity, type and thickness of free product observed*
- Type of free product recovery system used and justification for method*
- Whether discharge will take place during recovery and location of discharge*
- Treatment type applied to any discharge and effluent quality expected*
- Steps taken / required to obtain necessary permits for discharge*
- Final disposition of recovered free product*
- Table showing dates of free product recovery and quantity recovered*
- Copies of waste manifests*

Site map(s) to scale and oriented north showing:

- UST system(s) and excavation*
- Product and dispenser lines*
- Pumps and islands*
- Underground utility lines (sewer, gas, water, etc.)*
- Nearby structures (buildings, roads, etc.)*
- Soil boring(s)*
- Monitoring well(s)*
- Locations where free product was encountered & estimated thickness*
- Location of recovery points*
- Location of the treatment unit*
- Location of discharge points*
- Property boundaries*

Word processing

Free product recovery report review by PM or other senior staff

General correspondence with client and Agency

Postage

Project update to client

Mail draft free product recovery report to O/O for review and signature

Postage

Make Copies of final free product recovery report for distribution

Copy charges

Deliver completed free product recovery report to IEPA and O/O

Postage



**Ad Hoc Committee's Total Office Labor Hour Estimate: 32**

**Low Priority Corrective Action Task List**

**Low Priority Ground Water Monitoring Plan Preparation Tasks**

Direct Expenses

Draft LP GW monitoring plan (tables and narrative), provide data concerning:

*Proposed time table for well installation, sampling and report submittal*

*Discussion of monitoring well development procedures*

*Discussion of monitoring well sampling procedures*

*Activities that will be taken to prevent sample cross-contamination*

*Adequacy of the monitoring well configuration to detect contaminant migration*

Site map(s) to scale and oriented north showing:

*UST system(s) and excavation*

*Product and dispenser lines*

*Pumps and islands*

*Underground utility lines (sewer, gas, water, etc.)*

*Nearby structures (buildings, roads, etc.)*

*Location of soil boring(s)*

*Location of monitoring well(s)*

*Property boundaries*

*Radius of 200 feet from the excavation*

Word processing

Prepare budget forms

LP GW monitoring plan & budget review by PM or other senior staff

General correspondence with client and Agency

Postage

Project update to client

Mail draft LP GW monitoring plan & budget to O/O for review and signature

Postage

Make Copies of final LP GW monitoring plan & budget for distribution

Copy charges

Deliver completed LP GW monitoring plan & budget to IEPA and O/O

Postage

**Ad Hoc Committee's Total Office Labor Hour Estimate: 40**

**Low Priority Ground Water Monitoring Fieldwork**

**Daily charges**

**Low Priority Ground Water Monitoring Report Preparation Tasks**

Direct Expenses

Draft LP GW monitoring plan (tables and narrative), provide data concerning:

*Description of implementation & completion of all elements of plan*

*Description of well development, sample collection, preservation & analysis*

*Analytical results in tabular format*

*Copies of laboratory reports*

*Copies of laboratory certifications*

*Ground water elevations in tabular format*

*Monitoring well logs*

*Completed chain-of-custody form(s)*

Site map(s) to scale and oriented north showing:

*UST system(s) and excavation*

*Product and dispenser lines*

*Pumps and islands*  
*Underground utility lines (sewer, gas, water, etc.)*  
*Nearby structures (buildings, roads, etc.)*  
*Location of monitoring well(s)*  
*Direction of groundwater flow (groundwater contouring)*  
*Property boundaries*  
*Radius of 200 feet from the excavation*  
 Word processing  
 LP GW monitoring report review by PM or other senior staff  
 General correspondence with client and Agency Postage  
 Project update to client  
 Mail draft LP GW monitoring report to O/O for review and signature Postage  
 Make Copies of final LP GW monitoring report for distribution Copy charges  
 Deliver completed LP GW monitoring report to IEPA and O/O Postage

<b>Ad Hoc Committee's Total Office Labor Hour Estimate:</b>	<b>32</b>
---	-----------

### High Priority Corrective Action Task List

<u>Conventional (Dig &amp; Haul) Corrective Action Plan and Oversight Tasks</u>	<u>Direct Expenses</u>
Prepare waste profile (arrange for landfill approval)	
Mail waste profile to O/O for review and signature	
Prepare (update) site health and safety plan	
Determine limits of excavation	
Estimate quantity of contaminated soil to be disposed of	
Estimate quantity of "clean" overburden to be stockpiled (if any)	
Draft Corrective Action Plan (tables and narrative), provide:	
<i>Description of activities performed to define extent of contamination</i>	
<i>Analytical results and cleanup objectives in tabular format</i>	
<i>Laboratory reports</i>	
<i>Boring logs</i>	
<i>Monitoring well logs</i>	
<i>Discussion of how corrective action plan shall remediate the release</i>	
<i>List of sampling parameters and corresponding remediation objectives</i>	
<i>Basis for determining sampling parameters and remediation objectives</i>	
<i>Media sampling plan to verify completion of remediation</i>	
<i>Current and future use of property</i>	
<i>Proposed preventive, engineering and institutional controls</i>	
<i>Schedule for implementation and projected completion of the plan</i>	
<i>Engineering diagrams, calculations, site maps, etc.</i>	
Site map(s) to scale and oriented north showing:	
<i>Soil sample locations</i>	
<i>Monitoring well locations</i>	
<i>Plume of soil and groundwater contamination</i>	
Word processing	
Prepare budget forms	
CAP & budget review by PM or other senior staff	
Prepare P.E. / P.G. & O/O Budget Certification	
General correspondence with client and Agency	Postage
Project update to client	

Mail draft CAP & budget to O/O for review and signature  
 Make Copies of final CAP & budget for distribution  
 Deliver completed CAP & budget to IEPA and O/O  
 Arrange for excavator  
 Arrange for trucking (transportation)  
 Arrange for backfill  
 Prepare waste manifests (or tracking forms)  
 Project scheduling  
 Call J.U.L.I.E and / or municipality for utility locate  
 Prepare (finalize) field notes

Postage  
 Copy charges  
 Postage

Prepare and describe excavation photos  
**Collect sample for waste profile (landfill approval)**  
**Field oversight and excavation sampling**

Film / photo  
 finishing  
**Daily charges**  
**Daily charges**

<b>Ad Hoc Committee's Total Office Labor Hour Estimate:</b>	<b>64</b>
---	-----------

Alternative Technology Corrective Action Plan Tasks

**Time & Material**

TACO Tier II or Tier III Evaluation / Calculation Tasks

**Time & Material**

Conventional (Dig and Haul) Corrective Action Completion Report Preparation Tasks

Direct Expenses

Prepare CAD map(s)  
 Draft Corrective Action Completion Report (tables and narrative), provide:  
*Chronological narrative of corrective action activities*  
*Explanation of how the corrective action activities remediated the release*  
*Discussion of how the remediation objectives were determined*  
*Media sampling and analytical procedures to verify completion of remediation*  
*Analytical results and remediation objectives in tabular format*  
*Laboratory reports*  
*Soil boring logs*  
*Monitoring well logs*  
*Laboratory certification*  
*Professional Engineer Certification*  
*Owner / Operator & Property Summary*  
*Photographs documenting corrective action activities*

Word processing

Prepare and describe photos  
 Obtain legal description of property  
 Obtain property tax identification number  
 CACR review by PM or other senior staff  
 General correspondence with client and Agency  
 Project update to client  
 Mail draft CACR to O/O for review and signature  
 Make Copies of final CACR for distribution  
 Deliver completed CACR to IEPA and O/O  
 Record NFR letter  
 Make Copies of recorded NFR letter for distribution

Film / photo  
 finishing  
  
 Postage  
 Postage  
 Copy charges  
 Postage  
 Recording costs  
 Copy charges

Deliver recorded NFR letter to IEPA and O/O  
Site visit by technician or scientist to prepare site map(s)

Postage  
Daily charges

**Ad Hoc Committee's Total Office Labor Hour Estimate: 64**

### Reimbursement Request Preparation Task List

#### Reimbursement Request Preparation Tasks

#### Direct Expenses

Prepare OSFM eligibility and deductible application	
Mail draft eligibility and deductible application to O/O for review and signature	Postage
Deliver completed eligibility and deductible application to OSFM and O/O	Postage
Setup reimbursement file	
Review & process subcontractor invoices	
Cost and budget tracking	
Draft LUST reimbursement claim request	
Reimbursement claim review by PM or other senior staff	
Prepare P.E. / P.G. & O/O Billing Certification	
General correspondence with client and Agency	Postage
Mail draft reimbursement claim to O/O for review and signature	Postage
Make Copies of completed reimbursement claim for distribution	Copy charges
Deliver completed reimbursement claim to IEPA and O/O	Postage

**Ad Hoc Committee's Total Office Labor Hour Estimate: 32**

## ATTACHMENT C

### Consulting Fees Summary

Under this framework, consulting fees would consist of lump sum or time & material charges for office based consulting activities (project management, remedial design, report preparation, reimbursement request preparation, etc.) combined with daily charges for field based activities (field oversight, sampling, mapping, etc.). For activities covered by lump sum or daily charges, direct costs other than labor are to be included in the lump sum or daily charge rates.

	<u>PAYMENT METHOD</u>
<u>Early Action Activities</u>	
20 Day Certification and 45 Day Report Preparation	Lump Sum Cost + Daily Charges
Early Action UST Removal / Excavation Preparation	Lump Sum Cost + Daily Charges
Early Action Fieldwork / Consultant Oversight	Daily Charges
Early Action Ground Water Removal Preparation	Lump Sum Cost
<u>Free Product Recovery</u>	
Free Product Recovery Preparation	Time & Material
Free Product Recovery Fieldwork	Daily Charges
Free Product Recovery Report Preparation	Lump Sum Cost
<u>Site Investigation / Classification</u>	
Stage 1 Site Investigation / Site Classification Plan Preparation	Lump Sum Cost
Stage 2, 3, etc. Site Investigation Plan Preparation	Time & Material
Site Investigation / Classification Fieldwork / Oversight	Daily Charges
Site Investigation / Classification Completion Report Preparation	Lump Sum Cost
<u>Low Priority Corrective Action</u>	
Low Priority Ground Water Monitoring Plan Preparation	Lump Sum Cost
Low Priority Ground Water Monitoring Fieldwork	Daily Chartges
Low Priority Ground Water Monitoring Report Preparation	Lump Sum Cost
Ground Water Monitoring Completion Report Preparation	Lump Sum Cost
<u>High Priority Corrective Action</u>	
Conventional (Dig & Haul) Corrective Action Plan Preparation	Lump Sum Cost + Daily Charges
Alternative Technology Corrective Action Plan Preparation	Time & Material
Conventional (Dig & Haul) Corrective Action Fieldwork	Daily Charges
TACO Tier II or Tier III Evaluation / Calculations	Time & Material
Conventional (Dig & Haul) Corrective Action Completion Report Preparation	Lump Sum Cost
<u>LUST Fund Reimbursement Report Preparation</u>	Lump Sum Cost

**Atypical Situations:**

Identification of a site as “atypical” would be an indication to the IEPA that the budget (or Early Action costs) need to be reviewed because the budget or costs are not typical for that phase of corrective action. A site would *only* need to be identified as atypical *if* the site characteristic(s) have caused the costs to exceed the typical costs. A site that has atypical characteristics, but has not exceeded the allowed (or typical) costs, would not be identified as atypical. Provided below are discussions of why these atypical characteristics may cause costs to exceed typical costs. Some of these atypical situations may no longer be applicable depending on the final decisions regarding how some tasks or costs are charged and reimbursed.

45-Day Report is the Corrective Action Completion Report: When the 45-Day Report is submitted as a CACR, the amount of documentation and the effort that goes into drafting the report is greater than what is required for a typical 45-Day Report.

No Further Action Site: When a site is classified as NFA, the amount of documentation and the effort that goes into drafting the report can be greater than what is required in a typical Site Classification Completion Report.

Soil Excavated: When the concept of the atypical sheet was originally devised, the concept of a daily field charge was not yet formulated. The original thought was that when soil is excavated during the Early Action Period, the costs could exceed the Agency’s proposed lump sum amount for Early Action activities. Depending on the final method for reimbursement, this site characteristic may or may not cause costs to be atypical.

Free Product Present: Costs for free product recovery can be highly variable. They depend on the product thickness, the number of wells in which free product is present, the method of free product recovery, and the amount recovered.

Free Product / Vapor Migration: Costs to mitigate free product or vapor migration can be highly variable, depending on where free product or vapor is migrating.

Number of USTs: If a site has numerous USTs, more soil borings and/or monitoring wells may be required than what would be required at a typical site to perform a site investigation to characterize the potential source areas and determine the extent of onsite contamination.

Number of tank fields: If a site has multiple tank fields, more soil borings and/or monitoring wells may be required than what would be required at a typical site to

perform a site investigation to characterize the potential source areas and determine the extent of onsite contamination.

Site Size: If a site is very large, more soil borings and/or monitoring wells may be required than what would be required at a typical site to perform a site investigation to characterize the extent of onsite contamination.

Areal Extent of Plume: If soil or ground water contamination is extensive, more soil borings and/or monitoring wells may be required than what would be required at a typical site to perform a site investigation to characterize the extent of onsite contamination.

Distance to site is over 110 miles (one way): If the distance to a site from the consultant's office is greater than 110 miles one way the round trip travel time in one day would exceed 4 hours, based on an average of 55 miles per hour. Depending on the time required for the work being performed, additional costs might be incurred for overnight stay, over-time for non-salaried employees, or per diem charges. In winter months, short daylight hours could also affect when an overnight stay may be required to complete fieldwork.

Site Geology: Some geological characteristics may require additional materials, time, and effort required for sampling and monitoring well construction. Additional mobilization may also require be required.

*Shallow Bedrock:* The cost to drill through bedrock is greater than drilling through soil. When shallow bedrock is encountered and the bedrock needs to be cored, in addition to higher drilling costs, the costs for laboratory tests to determine physical properties will also be atypical. If bedrock had not been anticipated, an additional mobilization may also be required.

*Multiple Water Bearing Units:* If more than one water-bearing unit is encountered, additional wells may be required to screen the different units. Additional materials and time to construct wells in the deeper unit to protect the shallow water-bearing unit may be required. If multiple water-bearing units had not been anticipated, an additional mobilization may also be required.

*Deep Ground Water Unit:* If the ground water table is deep, monitoring wells deeper than typical monitoring wells will be required. Deeper wells would require additional well construction materials (casing, grout and may potentially require pumping grout with a tremie pipe), and additional time for soil sampling and descriptions, well installation, well development and purging, and ground water sampling. If a deep ground water table had not been anticipated, an additional mobilization may also be required.

*Other:* For example, if the subsurface strata are dominated by unconsolidated sand, the sand may heave. Drilling and well construction in heaving sand conditions can be problematic and may require additional time

for well installation, and large diameter augers (at an increased drilling cost) to be able to construct the monitoring well inside the auger stem. Emplacing the well seal by pumping grout with a tremie pipe may also be required. If heaving sand had not been anticipated, an additional mobilization may also be required.



**ATTACHMENT E**

**Proposed Personnel Titles and Requirements**

Title	Degree Requirement	III License Requirement	Minimum Yrs Experience	IEPA Hourly Rate
Engineer I	Bachelor's in Engineering	None	0	
Engineer II	Bachelor's in Engineering	None	2	
Engineer III	Bachelor's in Engineering	None	3	
Professional Engineer	Bachelor's in Engineering	P.E.	4	
Senior Prof. Engineer	Bachelor's in Engineering	P.E.	8	
Geologist I	Bachelor's in Geology or Hydrogeology	None	0	
Geologist II	Bachelor's in Geology or Hydrogeology	None	2	
Geologist III	Bachelor's in Geology or Hydrogeology	None	3	
Professional Geologist	Bachelor's in Geology or Hydrogeology	P.G.	4	
Senior Prof. Geologist	Bachelor's in Geology or Hydrogeology	P.G.	8	
Scientist I	Bachelor's in a Natural or Physical Science	None	0	
Scientist II	Bachelor's in a Natural or Physical Science	None	2	
Scientist III	Bachelor's in a Natural or Physical Science	None	3	
Scientist IV	Bachelor's in a Natural or Physical Science	None	4	
Senior Scientist	Bachelor's in a Natural or Physical Science	None	8	
Project Manager	None **	None	8	
Senior Project Manager	None **	None	12	
Principal	None **	*	*	
Technician I	None **	None	0	
Technician II	None **	None	2	
Technician III	None **	None	3	
Technician IV	None **	None	4	
Senior Technician	None **	None	8	
Account Technician I	None **	None	0	
Account Technician II	None **	None	2	
Account Technician III	None **	None	3	
Account Technician IV	None **	None	4	
Senior Acct. Technician	None **	None	8	
Administrative Assistant I	None **	None	0	
Administrative Assistant II	None **	None	2	
Administrative Assistant III	None **	None	3	
Administrative Assistant IV	None **	None	4	
Senior Admin. Assistant	None **	None	8	

\*While there is no specific license or experience requirement for a Principal, the position is assumed to entail substantial decision-making authority and performance accountability on behalf of the firm.

\*\*Equivalent work-related college level education can be substituted for all or part of the specified experience requirements.