

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:

PROPOSED AMENDMENTS TO:)	
REGULATION OF PETROLEUM LEAKING)	R04-22; Docket B
UNDERGROUND STORAGE TANKS)	(Rulemaking – UST)
35 ILL. ADM. CODE 732)	

IN THE MATTER OF:

PROPOSED AMENDMENTS TO:)	
REGULATION OF PETROLEUM LEAKING)	R04-23; Docket B
UNDERGROUND STORAGE TANKS)	(Rulemaking – UST)
35 ILL. ADM. CODE 734)	Consolidated

Proposed Rule. Proposal For Public Comment

**PREFILED TESTIMONY OF JOSEPH W. TRUESDALE, P.E., P.G., AND
CINDY S. DAVIS, P.G. OF CSD ENVIRONMENTAL SERVICES, INC.**

CSD Environmental Services offers pre-filed testimony in this proceeding. The testimony was prepared by Joseph W. Truesdale and Cindy Davis of CSD Environmental Services, Inc. both of which will be available at the hearing to answer any questions regarding our testimony.

CSD Environmental would like to thank the Illinois Pollution Control Board for listening to our concerns and creating Subdocket B to allow for further discussion on key issues prior to preparing a final rule.

The Professionals for Protection of the Environment (PIPE) have prepared and pre-filed testimony in response to the January 5, 2006 Opinion and Order. CSD Environmental offers it's support and concurrence with PIPE's pre-filed testimony regarding scopes of work and rate development. To save time, CSD's testimony will address additional testimony to support PIPE.

The Board in its January 5, 2006 Opinion and Order invited public comment on several key issues. Each of those issues is discussed below.

Scope of Work

The Board recognized that the regulated community sought specificity regarding the actual work involved in completing tasks for which the Agency has proposed maximum lump sum payments for professional consulting services. The Board included in Subdocket B a scope of work which was the combined effort of the *Ad Hoc* Work Group and PIPE. CSD has reviewed the scope of work and has added additional items to the proposed scope of work as requested by the Board. All added items were indicated with bold lettering and underlined. All deleted items were indicated with strikethrough. Only those SOW's we proposed changes to are provided. Any parallel requirements of 734 are applicable to our proposed revisions to 732 should also be considered. CSD is preparing additional scopes of work for alternative technology corrective action plans to address preparation of these plans in a phased approach as we discussed in previous testimony. CSD is also preparing scope of work for 732.845 (d) and (f). Both of these scopes will be provided by CSD in amended testimony prior to hearing.

The scopes of work are general and don't address site specific issues, such as how many ust's are present, how many samples were collected during investigation etc. While this may not seem important at first glance it is important to define "typical" for a maximum lump sum payment to apply. For example, if the site had two ust's in a fairly tight clay with a small contaminant plume versus a site with two ust's in a sand aquifer and a large contaminant plume, the amount of work required by the Professional to tabulate and evaluate the data is considerably different. This is also the case if the contaminants of concern were only benzene, ethylbenzene, toluene and xylene versus a waste oil tanks where the contaminants of concern are volatile organics, base/neutrals, polynuclear aromatics, and metal parameters. If maximum lump sums are to be developed for a task, then these types of specifics will need to be addressed. It is our opinion that the Agency will not wish to address these types of specifics. Nor will the Agency want to list these specifics and trust the consulting industry to provide an estimate of hours to complete the tasks, believing the consultants will overestimate the hours. Likewise, the consulting community would not trust the Agency's proposed hours believing the Agency, with cost cutting measures in mind and lack of experience in actually completing the work (i.e. not reviewing), will underestimate the hours. With this in mind,

CSD doesn't believe lump sum payments can be feasibly determined and **we propose that Professional Consulting Fees remain on a time and material basis.**

We believe that a scope of work should be developed for all tasks even if the Board decides Professional Consulting Fees remain on a time and material basis. The scope of work is still valuable since it will define what is required by the Agency to comply with the regulations and will remove some ambiguity in the LUST program. As to the question of where the scope of work should be set (pages 6 and 7 of Order), CSD recommends if the Board adopts time and material, then the scope of work could be developed by the Agency, with the assistance of the LUST advisory committee and be separate from this rulemaking. However, if the Board adopts maximum lump sum payments, then the scope of work needs to be established in regulation tying the scope to the maximum lump sum payments. If the scope were not tied to payments, it would leave the Agency free to add additional tasks to the scope of work without making the appropriate change in price.

Regarding the Board's question as to whether adequate information is available in the Agency's database to determine lump sum payments for the various professional consulting tasks (page 8 of Order), CSD answers no. The Agency has not collected data on a task level. USI in the September hearing provided excellent testimony regarding the information available in the Agency's database. Refer to PIPE's discussion on this issue in their pre-field testimony which CSD supports.

Regarding the Board's request to provide reasonable personnel time estimates for all tasks the Board has proposed a SOW (page 10 of Order), CSD doesn't believe the scope of work is detailed enough at this time to honor the Board's request. CSD supports PIPE's method of determination of maximum lump sum payment amounts, we also believe that the payment amounts should not be based on guesstimates, but on actual data. As stated above, we believe the Agency would not trust the consulting industry to provide an estimate of hours to complete the tasks, believing the consultants will overestimate the hours. Likewise, the consulting community would not trust the Agency's proposed hours believing the Agency, with cost cutting measures in mind and lack of experience in actually completing the work (i.e. not reviewing), will underestimate the hours.

Regarding the Board's question whether it is feasible to take a multiple rate approach (page 10 of the order), CSD responds that first we support a time and materials payment method. However, if the Board is determined to proceed with maximum lump sum payments, then we support PIPE's method for determining those payments on actual data and not guesstimates.

Regarding the Board's question to whether or not a SOW is needed for Early Action Closure reports, ELUC's, HAAs, well surveys and TACO calculations (page 6 of Order), CSD believes yes a scope of work is necessary for all tasks necessary to comply with the LUST regulations. However, the 742 regulations are currently undergoing the rulemaking process for revisions. It is extremely difficult if not impossible to assign a scope of work and associated cost to a parallel regulation that can change outside the confines of 732 or 734.

We thank the Board for the opportunity to present this pre-filed testimony and will be available at the hearing to answer any questions in relation to our testimony.

Respectfully submitted,
CSD Environmental Services, Inc.

By: _____ and By: _____

Dated March 1, 2006.

Proof of Service

The undersigned states that a true and correct copy of the foregoing Pre-Filed Testimony, was filed with the Illinois Pollution Control Board, electronically on March 1, 2006 and a true and accurate copy of the filing was served upon the individuals listed on the Board's Service List for R04-22(B) and R04-23(B), as reflected on the Board's website on that same day, as reflected below, by mailing the same via the United States postal service, Springfield, Illinois on March 2, 2006.

By: _____

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Section 732.APPENDIX F Scope of Work For Professional Consulting Services

(732.202 Early Action)

732.202 (a)(2). Take immediate action to prevent any further release of the regulated substance to the environment.

732.202 (a)(3). Identify and mitigate fire, explosion and vapor hazards.

732.202 (b)(1). Remove as much of the product from the UST system as is necessary to prevent further release into the environment.

732.202 (b)(2). Visually inspect any aboveground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils and groundwater.

732.202 (b)(3). Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the UST excavation zones and entered into subsurface structures (such as sewers or basements).

Section 732.845(a)(1) Preparation for the abandonment or removal of USTs

1. Project Management

a. Site visit to determine course of action (removal vs. abandonment, etc.) as well as any other physical site limitations associate with UST removal; or abandonment.

2. Correspondence

a. Office of the Illinois State Fire Marshal (OSFM)

1. ~~Prepare and submit~~ **Obtain** initial Notification Form **and other related OSFM information** for Underground Storage Tanks.

2. Prepare Application for Permit for Removal/Abandonment of Underground Storage Tanks and submit to owner/operator for signature.

3. Submit Application for Permit for Removal/Abandonment to OSFM.

4. Prepare and submit LUST Fund Eligibility and Deductibility Application **to owner/operator for signature.**

5. Submit LUST Fund Eligibility and Deductibility Application to OSFM.

~~6.5.~~ Prepare and submit amended Notification Form **to owner/operator for signature.**

5. Submit amended Notification Form to OSFM.

b. Illinois Environmental Protection Agency (IEPA)

1. Prepare and submit early action extension.
2. Follow up.

c. Correspond with and update client.

3. Waste Disposal

a. Determine early action excavation limits.

b. Prepare **and submit** waste profile **to owner/operator for signature.**

c. Submit completed waste profile and arrange for landfill approval.

~~d.e.~~ Prepare waste manifests or tracking forms.

4. Plan and Report Preparation

a. Prepare site health and safety plan.

5. Resource Coordination

a. Arrange for subcontractors (e.g., excavator, tank removal contractor, backfill, landfill).

b. Schedule project.

c. Call J.U.L.I.E. and/or municipality to locate utilities.

Section 732.845(a)(3) Preparation and submission of 20-day and 45-day reports

1. Project Management

2. Correspondence

a. Correspond with Agency.

b. Correspond with and update client.

3. Records Gathering

- a. Obtain and review IEPA and/or OSFM records.
- b. Obtain and review well records from ISGS and ISWS.
- c. Obtain and review local information (e.g. Sanborn maps, aerial overlays).
- d. Site visit to obtain physical information for site map preparation.**

4. Waste Disposal

- a. Review disposal documentation.

5. Technical Evaluation

- a. Prepare well location map (<25 records within 2500 feet).
- b. Determine expected local site geology (subsurface soil conditions).

6. Plan and Report Preparation

- a. Prepare 20-Day Certification
- b. Prepare or revise site health and safety plan
- c. Prepare 45-Day Report

1. Provide information pertaining to:

- A. Site Identification
- B. Release Information
- C. Early Action
- D. Site Information

1. Nature and estimated quantity of release

2. Data concerning:

- a. Surrounding populations
- b. Water quality

- c. Use and approximate locations of wells potentially affected by the release
- d. Subsurface soil conditions
- e. Location of subsurface sewers
- f. Climatological conditions
- g. Land use

3. A discussion of what was done to measure for the presence of a release

4. Action taken to prevent further release of the regulated substance into the environment

5. A discussion of the action taken to monitor and mitigate fire and safety hazards posed by vapors or free product that has migrated from the UST excavation zone and entered subsurface structures

E. Supporting Documentation

1. Site map to scale and oriented north showing:

- a. UST systems(s) and excavation limits;
- b. Product and dispenser lines;
- c. Pumps and islands;
- d. Underground utilities (sewer, gas, water, etc.);
- e. Nearby structures (buildings, roads, etc.)
- f. Soil borings(s) (if present);
- g. Monitoring well(s) and/or sumps (if present);
- h. Property boundaries;
- i. Sample location points.

2. Area map showing the site in relation to surrounding properties. This map should identify the facilities on the surrounding properties;

3. Cross-section, to scale, showing the UST(s) and the excavation;
4. Analytical / screening results in tabular format, including the results of soil samples required pursuant to 35 Ill. Adm. Code 732.202(h) or 45 ILCS 5/57-57.17;
5. UST information in a tabular format, including:
 - a. Total number of UST(s) on site;
 - b. Volume of the UST(s) (in gallons);
 - c. The material stored in the UST(s);
 - d. Identification of UST systems(s) that had a release; and
 - e. Identification of UST system(s) that were repaired, removed, or abandoned-in-place;
6. Copy of OSFM Permits or notifications;
7. Narrative of tank removal and cleaning operations; describe how wastes generated during the tank removal were managed, treated, and disposed of;
8. Photographs of UST removal activities and the excavation; and
9. Copies of waste manifests for soil and groundwater transported off-site.

d. Review 20-Day Certification and 45-Day report by project manager or other senior staff.

7. Resource Coordination

- a. Call J.U.L.I.E. and/or municipality to locate utilities.

8. Distribution

- a. Deliver draft 20-Day Certification and 45-Day Report to owner/operator for review and signature.
- b. Make copies of final 20-Day Certification and 45-Day Report for distribution.
- c. Deliver completed 20-Day Certification and 45-Day Report to IEPA and owner/operator.

(732.203 Free Product Removal)

732.203(a)(1). Conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site and that properly treats, discharges or disposes of recovery byproducts in compliance with applicable local, State and federal regulations.

732.203(a)(3). Handle any flammable products in a safe and competent manner to prevent fires or explosions.

732.845(a)(6) Preparation and submission of free product removal reports

1. Project Management

2. Correspondence

a. Correspond with and update Illinois Environmental Protection Agency (IEPA)

b. Correspond with and update Client.

3. Waste Disposal

a. Review disposal documentation.

4. Plan and Report Preparation

a. Prepare Free Product Removal Report

1. Provide information pertaining to:

A. Site Identification

B. Free Product Information

1. Name(s) of person(s) responsible for implementing the free product removal measures;

2. Estimated quantity, type, and thickness of free product observed or measured in boreholes, wells, excavation, etc.;

3. The type of free product recovery system used and technical justification for the method of recovery chosen;

4. Whether any discharge will take place on- or off-site during the recovery operation and where this discharge (point) will be located;

5. Type of treatment applied to (the free product), and the effluent quality expected from any discharge;
6. Steps that have been taken or that are being taken to obtain necessary permits for any discharge; and
7. The disposition of the recovered free product.

C. Supporting Documentation

1. Site map to scale and oriented north showing:
 - a. UST systems(s) and excavation limits;
 - b. Product and dispenser lines;
 - c. Pumps and islands;
 - d. Underground utilities (sewer, gas, water, etc.);
 - e. Nearby structures (buildings, roads, etc.);
 - f. Soil boring(s) (if present);
 - g. Monitoring well(s) and/or sumps (if present);
 - h. Locations where free product was encountered including its estimated thickness;
 - i. Location of recovery points;
 - j. Location of the treatment unit;
 - k. Location of discharge points;
 - l. Property boundaries.
2. Table showing the dates that free product recovery was conducted and the amount of free product recovered on each date; and
3. Copies of waste manifests.

5. Distribution

- a. Deliver draft free product removal report to owner/operator for review and signature.

- b. Make copies of final free product removal report for distribution.
- c. Deliver completed report to IEPA and owner/operator.

732.203(c) and (d).

Section 732.845(a)(7) Preparation and submission of reports submitted pursuant to Section **732.202(h)(3) or** 734.210(h)(3)

(Reserved)

Section 732.845(b)(1) Preparation and submission of site classification plans, site classification preparation, fieldwork, field oversight, and the preparation and submission of the site classification completion report

SITE CLASSIFICATION WORK PLAN

- 1. Project Management
- 2. Correspondence
 - a. Correspond with Agency.
 - b. Correspond with and update client.
- 3. Technical Evaluation
 - a. Conduct fieldwork.
 - b. Provide field oversight.
- 4. Plan and Report Preparation
 - a. Prepare Site Classification Work Plan
 - 1. Provide information concerning:
 - A. Site Identification
 - B. Site Information
 - C. Site Classification
 - 1. Method of Physical Soil Classification

2. Number of soil borings to be advanced on-site

3. Whether soil borings are proposed to be advanced for reasons other than Physical Soil Classification or investigation of migration pathways

4. Whether monitoring wells are proposed on-site

5. Physical Soil Classification

a. Scientific publications/geologic maps that will be reviewed to determine consistency with Plate 1 of the Illinois State Geological Survey Circular 532;

b. Drilling methods, auger types, sampling procedures and sampling devices that will be used;

c. Basis for determining the location (include number and spacing) of soil borings;

d. How the proposed final soil boring configuration and boring depths will provide the greatest likelihood of determining the geologic characteristics of the site;

e. What will be done if auger refusal occurs or bedrock is encountered during drilling;

f. What will be done if anomalies are encountered during drilling;

g. What will be done to prevent cross-contamination between water-bearing units that may be encountered during drilling;

6. Groundwater Investigation

a. Drilling methods that will be used;

b. Basis for determining the location and number of monitoring wells placed at the site;

c. Monitoring well installation procedures;

d. Activities that will be taken to prevent cross-contamination during well installation;

e. Basis for determining well construction materials;

- f. Basis for determining the monitoring well-screen depth and screened interval;
- g. Monitoring well development procedures;
- h. Monitoring well sampling procedures;
- i. Activities that will be taken to prevent cross-contamination between groundwater samples;
- j. How the proposed final monitoring well configuration will provide the greatest likelihood of detecting the migrations of groundwater contamination; and
- k. Steps that will be taken to determine groundwater elevation and flow direction.

7. How the Licensed Professional Engineer will verify whether Class III Special Resource Groundwater exists within 200 feet of the UST system.

8. How the Licensed Professional Engineer will identify and locate all community water supply wells within 2,500 feet of the UST system and all potable water supply wells within 200 feet of the UST system, and determine if the UST system is within the regulated recharge area of any community water supply well or potable water supply well.

Note: Pursuant to 732.312(a)(1), owners or operators electing to classify a site by exclusion of human exposure pathways “must elect pursuant to 35 Ill. Adm. Code 734.105 to proceed in accordance with 35 Ill. Adm. Code 734 and conduct site investigation and corrective action in accordance with that Part instead of meeting the requirements of this Section.”

~~9. Classification by Exposure Pathway Exclusion~~

- ~~a. Discussion of the activities to determine the full extent and concentrations of contaminants in soil and/or groundwater exceeding the Tier 1 remediation objectives;~~
- ~~b. Discussion of the tests to be performed to determine whether or not the following requirements will be met:
 - ~~1. Attenuation capacity of the soil will not be exceeded for any of the organic contaminants;~~~~

~~2. Soil saturation limit will not be exceeded for any of the organic contaminants;~~

~~3. Contaminated soils do not exhibit any of the reactivity characteristics of hazardous waste per 35 Ill. Adm. Code 721.123;~~

~~4. Contaminated soils do not exhibit a pH 2.0 = or = 12.5; and~~

~~5. Contaminated soils which contain arsenic, barium, cadmium, chromium, lead, mercury, selenium or silver (or their associated salts) do not exhibit any of the toxicity characteristics of hazardous waste per 35 Ill. Adm. Code 721.124.~~

~~c. Discussion of how the inhalation exposure route will be evaluated to determine that:~~

~~1. An institutional control is in place that requires safety precautions for construction worker populations and compliance with #2 below;~~

~~2. Any contaminant of concern within ten (10) feet of land surface or within ten (10) feet of any man-made pathway does not exceed Tier 1 remediation objectives; OR and Agency approved engineered barrier is in place.~~

~~d. Discussion of how the soil ingestion exposure route will be evaluated to determine that:~~

~~1. An institutional control is in place that requires safety precautions for construction worker populations and compliance with #2 below;~~

~~2. Any contaminant of concern within three (3) feet of land surface does not exceed Tier 1 remediation objectives; OR and Agency approved engineered barrier is in place.~~

~~e. Discussion of how the groundwater ingestion exposure route will be evaluated to determine the following:~~

- ~~1. The source of the release is not located within the minimum/maximum setback zone or regulated recharge area of a potable water supply well;~~
- ~~2. Any area within 2500 feet from the source of the release is restricted under a local ordinance which prohibits the use of groundwater as a potable supply;~~
- ~~3. The concentration of any contaminant of concern in groundwater within the minimum/maximum setback zone of a potable water supply well meets the applicable Tier 1 remediation objective; and~~
- ~~4. The concentration of any contaminant of concern in groundwater discharging into a surface water will meet the applicable surface water quality standard per 35 Ill. Adm. Code 302.~~

10. Site map to scale and oriented north showing:

- a. UST system(s) and excavation limits;
- b. Product and dispenser lines;
- c. Pumps and islands;
- d. Underground utilities (sewer, gas, water, etc.);
- e. Nearby structures (buildings, roads, etc.);
- f. Location of the proposed soil borings(s);
- g. Location of the proposed monitoring wells (if required);
- h. Property boundaries; and
- i. 200-foot radius from the UST system.

11. Chart indicating the following:

- a. Boring identification;

- b. Depth of boring (in feet);
- c. Number of samples from each boring that will be submitted for geotechnical analysis; and
- d. Identification of geotechnical tests that will be performed on samples.

- b. Prepare budget for site classification work plan.
- c. Review site classification work plan and budget by project manager or other senior staff.
- d. Prepare LPE/LPG certification.

5. Distribution

- a. Deliver draft site classification work plan and budget to owner/operator for review and signature.
- b. Make copies of final site classification work plan and budget for distribution.
- c. Deliver completed report to IEPA and owner/operator.