



State of Utah
Department of Environmental Quality
Division of Environmental Response and Remediation

Leaking Underground Storage Tank (LUST) Corrective Action Plan Guide

Guidelines to assist in the cleanup of petroleum
contamination from LUST sites.

January 2007
(updated Sept. 2008)

This guide is intended to help owners/operators or responsible parties of Leaking Underground Storage Tank (LUST) sites, through the process of preparing the **Corrective Action Plan (CAP)**. Cleanup levels for LUST sites will be established using the criteria and standards required by Utah Admin. Code R311-211, in order to protect human health and the environment at the release site, and other impacted areas. The cleanup levels shown in Attachment A are based on site-specific conditions, such as current land use and distances to receptors.

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CORRECTIVE ACTION PLAN PROCESS

The process described below is for all Leaking Underground Storage Tank (LUST) sites; sites that qualify for reimbursement from the Petroleum Storage Tank (PST) Trust Fund, and those sites which are not PST Funded. The items shown in *Italics* are additional steps which are required for PST Funded sites.

1. Corrective Action Plan (CAP) Meeting

A CAP meeting is held with you [the Responsible Party (RP) or owner/operator of the UST system], your environmental consultant and the Division of Environmental Response and Remediation (DERR) project manager, and other people as appropriate, such as the current property owner or lessee. The objective of this meeting is to discuss cleanup alternatives and cost estimates, and to reach an agreement on a cost-effective cleanup approach for your site.

If your site is PST Funded, your PST Fund–assigned project manager will request, review and approve a work plan and budget so that your environmental consultant can attend the CAP meeting with you. All upcoming work plans and corresponding budgets must be approved by the Executive Secretary (UST) prior to initiating work in order to maintain your eligibility status for reimbursement purposes.

2. CAP Summary Letter and Public Notice Requirements

After the CAP meeting, the cleanup alternatives and the chosen corrective action will need to be summarized. Attachment B provides a template for submitting the CAP summary to the DERR. The Public Notice allows the affected public an opportunity to comment on the CAP prior to its implementation. Attachment C provides a template to use for your public notice. The following steps occur during this portion of the corrective action plan process:

- *The PST Fund project manager will request, review and approve a work plan and budget to develop and distribute the CAP Summary Letter and Public Notice.*
- You will submit a CAP Summary Letter and Public Notice to the DERR.
- The DERR project manager will review, and once approved, will issue a notice to proceed with the distribution of the CAP Summary Letter and Public Notice for public comment.
- Public comments received will be reviewed by the DERR.

3. Technical Specifications & Construction Details

For cleanup plans more complex than soil excavations (i.e., “dig & haul”), technical specifications and construction design details including remediation system Operation and Maintenance (O&M) schedules are required components of the cleanup plan for your release site. Technical specifications describe the type and size of any equipment used. Construction design details

describe how and where the equipment is installed. The O&M schedule describes when the system is operated and how often maintenance is performed on the remediation equipment. Attachment D provides information on some other agencies that you may need approval from when developing your site-specific cleanup plan. Depending on the cleanup process used, a sampling plan may be required. If so, your DERR project manager will work with your environmental consultant in preparing a sampling plan. The following steps occur during this portion of the cleanup process:

- The DERR project manager will request technical specifications and construction design details including remediation system O&M schedule and the sampling plan, if a plan is needed.
- *The PST Fund project manager will request, review and approve a work plan and budget for the development of the technical specifications, construction design detail, an engineering cost to implement the CAP and a CAP installation report including as-built drawings.*
- The owner will submit the CAP technical specifications, construction design detail *and engineering cost estimate to implement the CAP.*
- The DERR will review and approve the CAP technical specifications, construction design detail *and cost estimate to implement the CAP.*
- *The DERR will request, review and approve a work plan and budget to implement the CAP and perform O&M, if needed.*

4. Implementation of the Corrective Action Plan

You will need to implement or install the CAP within six (6) months after approval, unless otherwise directed by the DERR. The DERR will provide you with written approval of your CAP. If the site is eligible for PST funding, *the DERR will also include an approval of the PST Fund work plan and budget to implement the CAP.*

5. Operation, Maintenance, Sampling and Reporting

After the cleanup system has been installed, you should ensure that the remediation system is properly operated and maintained, as well as provide the necessary reports to the DERR, and other agencies if necessary. The following steps typically occur during this portion of the CAP process.

- You or your environmental consultant will submit the CAP installation report, including as-built drawings to the DERR for review.
- You or your environmental consultant will submit reports for the O&M and sampling events to the DERR for review according to the approved O&M schedule.

ATTACHMENT A

INITIAL SCREENING LEVELS (November 1, 2005)

Contaminants	Groundwater (mg/L)	Soil (mg/kg)
Benzene	0.005	0.2
Toluene	1.0	9
Ethylbenzene	0.7	5
Xylenes	10.0	142
Naphthalene	0.7	51
Methyl t-butyl ether (MTBE)	0.2	0.3
Total Petroleum Hydrocarbons (TPH) as gasoline	1	150
Total Petroleum Hydrocarbons (TPH) as diesel	1	500
Oil and Grease or Total Recoverable Petroleum Hydrocarbons (TRPH)	10	1000

TIER 1 SCREENING CRITERIA (November 1, 2005)

Tier 1 Screening Levels are applicable only when the following site conditions are met:

- 1) No buildings, property boundaries or utility lines within 30 feet of the highest measured concentration of any contaminant that is greater than the initial screenings levels but less than or equal to the Tier 1 screening levels; AND,
- 2) No water wells or surface water within 500 feet of highest measured concentration of any contaminant that is greater than the initial screenings levels but less than or equal to the Tier 1 screening levels.

Contaminants	Groundwater (mg/L)	Soil (mg/kg)
Benzene	0.3	0.9
Toluene	3	25
Ethylbenzene	4	23
Xylenes	10	142
Naphthalene	0.7	51
Methyl t-butyl ether (MTBE)	0.2	0.3
Total Petroleum Hydrocarbons (TPH) as gasoline	10	1500
Total Petroleum Hydrocarbons (TPH) as diesel	10	5000
Oil and Grease or Total Recoverable Petroleum Hydrocarbons (TRPH)	10	10000

ATTACHMENT B

CAP SUMMARY LETTER TEMPLATE

Project Manager
Utah Department of Environmental Quality
Division of Environmental Response and Remediation
168 North 1950 West, First Floor
Salt Lake City, Utah 84116

Re: *Corrective Action Plan Summary Letter*
(*Facility Name*), located at (*Facility Address*), Utah
Facility Identification No. _____, Release Site _____

Executive Summary

This outline presents the results of the Corrective Action Plan (CAP) meeting that was held at _____ on _____, regarding proposed corrective action at (*Facility Name*) located in _____, Utah. Attendees at the meeting included (*Consultant*) from (*Consulting firm*) with (*DERR project manager*) from the Utah Department of Environmental Quality, Division of Environmental Response and Remediation (DERR), and (*responsible party or owner/operator of the UST system*). This letter was prepared by (*Consulting Firm*) for (*the responsible party or other (describe)*).

Background

The facility is located at (*address*), Utah. *Explain current property use, identify RP and give a brief history of the project.*

Corrective Action Alternatives

The following corrective action alternatives were discussed during the meeting:

- 1)
- 2)
- 3)...

Selected Corrective Action Rationale

The selected corrective action was (*describe approach; i.e., dig & haul, remediation system, monitored natural attenuation, etc.*). The corrective action was selected based on the following conditions:

- 1)

- 2)
- 3)....

The following permits and approvals will be obtained for this work:

- 1)
- 2)
- 3)....

Upon approval of this CAP Summary Letter, the attached Public Notice will be distributed.

Sincerely,

Certified UST Consultant #***

Attachments: Site Map
 Public Notice

ATTACHMENT C

PUBLIC NOTICE TEMPLATE

PUBLIC COMMENT PERIOD _____ - _____
Start End

Leaking Underground Storage Tank Petroleum Cleanup Project (Facility Name & Address Information)

(Responsible party or owner/operator of the UST system), with approval from the Utah Department of Environmental Quality (UDEQ), Division of Environmental Response and Remediation (DERR), is planning to remediate petroleum-contaminated soil (*and ground water*) at (*facility name*). The environmental consultant for this project is *****.

Site Description

The site is located at (*Address*), Utah. The facility currently operates as a (*Type of Facility*). (*Include brief history of release and site conditions*)

Cleanup Measures

The proposed cleanup approach is ***** , and will consist of the following:

- 1)
- 2)...

Schedule

Construction is planned to begin approximately (*Date*) and is expected to take approximately (*Time*). [for remediation systems, also add- "*The consultant estimates operation of the system is expected to last between (estimated time frame)*"]

For More Information

A copy of the Corrective Action Plan Summary Letter prepared for this site is attached and is also available at the DERR in Salt Lake City (address below; office hours 7:00 a.m. to 6:00 p.m., Monday through Thursday) and at the (*Local Public Building*) located at (*Address*). For additional information or to provide comment(s), please contact:

***** , Project Manager (801-536-4100)
Division of Environmental Response and Remediation
168 North 1950 West, 1st Floor, Salt Lake City, Utah 84116

The comment period is open from _____ until _____.

ATTACHMENT D

PERMITTING AND OTHER APPROVALS

You may need approval or permits from one or more of the following agencies before conducting cleanup activities at your release site. This list should not be considered inclusive and you should always ensure compliance with all applicable local, state or federal rules, codes or laws. Submit documentation of notification and any permits or approvals obtained from other agencies to your DERR project manager.

Division of Air Quality (801) 536-4000

If you anticipate emitting hydrocarbon or petroleum vapors into the atmosphere during any phase of the cleanup process, notify the Division of Air Quality so they may determine whether an air discharge permit or approval letter is required.

Division of Water Quality (801) 538-6146

If you know that surface waters have been contaminated, notify the Division of Water Quality. Any required permits or approvals, including groundwater or surface water discharge, pretreatment or re-injection, must be obtained prior to implementing corrective action or abatement measures.

Division of Solid and Hazardous Waste (801) 538-6170

If you suspect or know the release at your site is a hazardous waste (such as cleaning solvents) or a mixed hazardous/petroleum waste, notify the Division of Solid and Hazardous Waste to ensure compliance with permitting, disposal, sampling and other related activities.

Local Agencies

Contact the appropriate local agencies such as the Health Department, Fire Department, Public Works, City Building Permits, Sanitary Sewer District, etc. for any applicable permits, applications or fees they may require for activities related to the construction or cleanup activities, remediation system operation, waste disposal or emissions at your release site.

Blue Stakes (800) 662-4111 or (801) 532-5000

Contact Blue Stakes or other appropriate agency for marking underground public utilities prior to any digging or construction activities at your release site. **NOTE:** In addition, if you need to work in the public right of way for construction or cleanup activities, call the Utah Department of Transportation [UDOT at (801) 965-4000], the city, the county, or other appropriate agency for the necessary permits or approvals prior to initiating the work at your release site.