

**GUIDELINES FOR SITE CHECKS, TANK CLOSURE,
AND INITIAL RESPONSE AND ABATEMENT
FOR UST RELEASES**

UST Section

North Carolina Department of Environmental Quality

Division of Waste Management

March 1, 2007 Version

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Index of Changes

<u>Document Title and Revised Pages</u>	<u>Version Date</u>	<u>Change Date</u>	<u>Change Number</u>
<i>Guidelines for Assessment and Corrective Action for UST Releases (current version)</i>	July 15, 2008	October 1, 2012	Change 2
<i>Guidelines for Sampling (current version)</i>	July 15, 2008	May 1, 2012	Change 2
<i>Guidelines for Ex Situ Petroleum Contaminated Soil Remediation (current version)</i>	August 23, 2012		
<i>Guidelines for Initial Response and Abatement, Assessment, and Corrective Action for Non-UST Releases of Petroleum (current version)</i>	July 1, 2012		
<i>Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement for UST Releases</i> Pages i to 81	March 1, 2007		
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If State Trust Fund reimbursement is anticipated, please refer to the current version of the Reasonable Rate Document (which is available in electronic format from the UST Section's web page at <https://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-section/trust-fund-branch/reasonable-rate-documents>) for information about reimbursement.

4.3 Site Check Requirements

When conducting a site check per **Title 15A NCAC 2N .0703** and **.0704**, the procedures below must be included:

- 1) Soil samples must be collected around the perimeter of a single UST or around the perimeter of a set of USTs in a single pit, according to the sampling procedure described in Item #1 of 5.3.B: Removal of UST(s) underlain by a concrete pad.
- 2) One sample must be collected in native soils under any catchment basin at the fill port for each UST, as described in 5.3.F, to document overfills.
- 3) Soil samples must also be collected in native soils underneath associated product lines, dispensers, containment sumps, turbine pumps or turbine containment sumps, and other areas where contamination is suspected or observed, as described in 5.3.F.

Note that, for #2 and #3 above, if the components are surrounded by gravel fill and not native soils, samples must be collected from native soils beneath the fill, or, in the case of fill port catchment basins, screened to a depth beneath the base of the UST (or a depth specified by the UST Section incident manager based on site-specific conditions) with the sample from each boring representing the suspected worst-case locations submitted for laboratory analysis.

- 4) All soil samples must be analyzed by approved methods as specified in Table 3, p. 59.

Note, if the UST system contains an ethanol-gasoline blend greater than E15, the UST Section will determine if the assessment required in items 1-4 is sufficient to detect a release, or if additional analytical methodologies will be necessary.

- 5) If any components intersect the water table, are installed on bedrock, or are surrounded by gravel fill, or where required by the UST Section based on other site-specific data, a permanent monitoring well, constructed according to **Title 15A NCAC 2C**, Well Construction Standards, must be installed as close as possible to and within 5 feet of the (part of the) UST system with the (suspected) release in a downgradient direction, and a groundwater sample must be collected and analyzed as specified in Tables 4 and 8.

Please note that it may not be necessary to collect samples from around the entire system, as indicated in items 1-3 above, if the area of the suspected release is known and localized.

If the results of the site check indicate that:

- soil contamination does not equal or exceed 50 mg/kg TPH GRO or 100 mg/kg TPH DRO for petroleum (or where tested, *such as for regulated hazardous substances*, does not exceed the soil-to-groundwater MSCC or the MDL if no MSCC is established),
- groundwater contamination does not equal or exceed the groundwater quality standard established in 15A NCAC 2L .0202, and
- NAPL is not present,

then the results must be reported to the UST Section in a ***Site Check Report***.

The ***Site Check Report*** must be submitted to the appropriate regional office of the Corrective Action Branch of the UST Section (as well as a separate copy to the Permits and Inspections Branch, if the site check was required by a UST inspector). The ***Site Check Report*** must be received by the UST Section within 30 days of the receipt of the ***Notice of Regulatory Requirements*** or the ***Notice of Violation***. If the removal of all or part of the UST system was necessary to allow access for site check sampling, then the required UST closure report elements (***UST-12 Format*** with a ***UST-2A*** or ***UST-2B Form***, Appendix A, p. 82) should be submitted as part of the ***Site Check Report***. The reporting requirements are described in Section 8.0, and the outline of the ***Site Check Report*** format is presented in Appendix A, p. 67. If the three conditions above are confirmed, then no further action will be required.

If the results of the site check indicate that:

- soil contamination does equal or exceed 50 mg/kg TPH GRO or 100 mg/kg TPH DRO for petroleum (or where tested, *such as for regulated hazardous substances*, soil contamination equals or exceeds the soil-to-groundwater MSCCs, or the MDL if no MSCC is established),
- groundwater contamination does equal or exceed any 2L groundwater quality standards, or
- free product is present,

then **initial response and abatement actions (Section 6.0), including excavation of contaminated soil (Section 7.0), are required**. A flowchart illustrating the requirements for releases discovered during site checks is presented as Figure 1 on p. 45.

Initial response actions which are required include submittal of a ***Form UST-61 - 24-Hour Release and Reporting Form*** (Appendix A, p. 75) to the UST Section within 24 hours following discovery of the release; action to stop the release; and identification and mitigation of hazards from exposure to pollutants.

Initial abatement actions include:

- determination of the source of the release (if not previously identified);
- investigation and removal of free product;
- submittal of a ***20-Day Report*** (Appendix A, p. 78) to the UST Section within 20 days following discovery of the release; and
- excavation of contaminated soil to the maximum extent possible (Section 7), followed by confirmation sampling as described in Section 9.1 and in Table 3, p. 59.

The final results of the initial abatement actions for a petroleum release must be reported in an ***Initial Abatement Action Report*** (Appendix A, p. 89), which must be submitted to the UST Section within 90 days following discovery of the release. (*The final results of the initial abatement actions for a hazardous substance release must be reported in a 45-Day Report, the requirements for which are addressed in the current version of the Guidelines for Assessment and Corrective Action for UST Releases; the 45-Day Report must be submitted within 45 days following discovery of the release.*)

The ***24-Hour Report***, the ***20-Day-Report***, and the ***Initial Abatement Action Report*** (or the ***45-Day Report***, for a hazardous substance release) must be submitted to appropriate regional office of the Corrective Action Branch of the UST Section (as well as a separate copy to the Permits and

Inspections Branch, if required by a UST inspector). If it was necessary to remove all or part of the UST system to allow access for site check sampling and/or excavation, then the required UST closure report elements (*UST-12 Format* with a *UST-2A* or *UST-2B Form*, Appendix A, p. 82) should be submitted as part of the *Initial Abatement Action Report*. The reporting requirements are described in Section 8.0, and the outline of the format is presented in Appendix A, p. 89.

If the *Initial Abatement Action Report* for a petroleum release shows that, post-excavation:

- soil contamination does not exceed the lower of the soil-to-groundwater or residential maximum soil contaminant concentrations (MSCCs),
- neither groundwater nor bedrock was encountered in the excavation, and
- where assessed, groundwater samples collected from one or more monitoring wells installed within the source area do not exceed any 2L groundwater quality standards,

then no further action will be required.

However, if the *Initial Abatement Action Report* indicates that, post-excavation:

- soil contamination does equal or exceed the lower of the soil-to-groundwater or residential MSCCs following excavation to the maximum extent practicable,
- either groundwater or bedrock was encountered, *and* groundwater contamination was not assessed or
- groundwater contamination does equal or exceed the 2L groundwater quality standards,

then the responsible party must perform further assessment and submit a *Limited Site Assessment Report* within 120 days of the discovery of the release. The *Limited Site Assessment Report* format is presented in the *Guidelines for Assessment and Corrective Action for UST Releases*, current version.

Per NCGS 143-215.94B(b)8, State Trust Fund reimbursement may be available for investigative costs if a site investigation is required by the Department to determine if a release has occurred. This statute excludes coverage of routine leak detection procedures that are required by statute or rule. Accordingly, reimbursement is not available for costs incurred for routine leak detection investigations by the tank owner or operator where required by rule under 15A NCAC 2N .0601 following evidence of a release detected onsite. However, reimbursement of some or all investigation costs may be available for a tank owner or operator who is directed by the Department to perform a leak detection investigation under 15A NCAC 2N .0602 following a release detection off-site.

Additionally, please note that a failure to locate and repair or remove a leaking component or system may jeopardize future access to the State Trust Fund, or require cost recovery for prior reimbursements, if the presence of an ongoing release results in an increase in cleanup costs.

Please refer to the current version of the Reasonable Rate Document (available in electronic format from the UST Section's web page at <https://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-section/trust-fund-branch/reasonable-rate-documents>) for more information about reimbursement.