

State UST Corrective Action Program: Policy Update Questionnaire

1.0 STATE CONTACT INFORMATION

State Name: _____

Regulatory Agency Name: _____

Division Name: _____

Key Contact Person(s)

Name: _____

Name: _____

Title: _____

Title: _____

Telephone: _____

Telephone: _____

Email: _____

Email: _____

2.0 STATE UST CORRECTIVE ACTION PROGRAM INFORMATION

2.1 Name of Corrective Action Program: _____

2.2 Information Sources

2.2.1 Web Address: _____

2.2.2 Statute Citation (if applicable): _____

2.2.3 Rule Citation (if applicable): _____

2.2.4 Guidance Documents *(attached additional sheet if needed)*

2.2.4.1 Name(s): _____

2.2.4.2 Web address for download: _____

2.2.4.3 Ordering information: _____

2.3 When was this corrective action program last revised (year)? _____

2.4 Are significant revisions planned in the next two years ? Yes No Unknown

2.5 Is the program based on the ASTM RBCA framework (E-1739 or E-2081)? Yes No Unknown

2.6 **Program Performance Records:** Are data collected and analyzed by the state to evaluate the effectiveness of the state corrective action program? Yes No Unknown (If yes, identify program performance measures evaluated)

Case closure rate

Case backlog

Average site remediation cost

Risk classification for active cases

Basis for case closure

Remediation portfolio risk reduction

Other: _____

2.7 **Applicable Programs:** In addition to USTs, what other regulatory areas are covered by this corrective action program?

RCRA

Superfund

Spills/Emergency Response

Voluntary Cleanup

Brownfields

Other: _____

3.0 SITE ASSESSMENT

- 3.1 **Constituents to be Analyzed:** What constituents are required for analysis at UST release sites under this corrective action program?

Constituent	Soil	GW
Benzene	<input type="checkbox"/>	<input type="checkbox"/>
Ethylbenzene	<input type="checkbox"/>	<input type="checkbox"/>
Toluene	<input type="checkbox"/>	<input type="checkbox"/>
Xylenes	<input type="checkbox"/>	<input type="checkbox"/>
MTBE	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input type="checkbox"/>	<input type="checkbox"/>
GRO	<input type="checkbox"/>	<input type="checkbox"/>
DRO	<input type="checkbox"/>	<input type="checkbox"/>
TPH	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>

GRO = Gas Range Organics, DRO = Diesel Range Organics,
TPH = Total Petroleum Hydrocarbons.

- 3.2 **Site Prioritization/Classification:** Does the corrective action program include a site classification system which is used to rate each corrective action site regarding priority for corrective action? Yes No Unknown
- 3.2.1 If yes, does the site classification affect the corrective action requirements? Yes No Unknown
- 3.2.2 If yes, does the site classification affect the time frame for corrective action at the site? Yes No Unknown
- 3.3 **Groundwater Classification:** Does the corrective action program include a groundwater classification system? Yes No Unknown
- 3.3.1 If yes, is the groundwater classification system based on regional groundwater characteristics (e.g., state groundwater quality/use maps). Yes No Unknown
- 3.3.2 Is the groundwater classification system based on site-specific characteristics? Yes No Unknown
(If yes, indicate characteristics included in classification?)
- Current groundwater use (e.g., proximity of wells, etc.)
 - Water quality (e.g., total dissolved solids)
 - Presence of other constituents (e.g., nitrate)
 - Potential well yield
 - Hydraulic conductivity of groundwater-bearing unit
 - Other: _____
- 3.4 **Receptor Survey:** Is a receptor survey required as part of the site assessment? Yes No Unknown
(If yes, indicate types of receptors included in the survey)
- Ecological habitats (e.g., wetlands, lakes, rivers, etc.)
 - Surface water bodies
 - Land use
 - Water wells
 - Underground utilities
 - Basements
 - Other: _____

- 3.5 **Ecological Risk:** Is an ecological risk assessment required as part of the site assessment or corrective action?
 Yes No Unknown
- 3.5.1 If yes, does the state have an ecological risk assessment guidance document? Yes No Unknown
- 3.5.1.1 Web address: _____
- 3.5.1.2 Document name: _____
- 3.5.1.3 Ordering information: _____
- 3.6 **Report Forms:** Does the corrective action program require use of standardized report forms to report the results of the site assessment? Yes No Unknown

4.0 REMEDIATION REQUIREMENTS

- 4.1 **Applicable Exposure Pathways:** Are remediation standards based on defined exposure pathways?
 Yes No Unknown (If yes, identify exposure pathways considered)?

Applicable Exposure Pathway	Pathway Considered		Pathway Screening Allowed	
	Yes	No	Yes	No
Soil				
Soil Direct Contact (Inhalation, Ingestion, and/or Dermal Contact)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil to Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil to Outdoor Air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil to Indoor Air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater				
Groundwater Ingestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater to Outdoor Air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater to Indoor Air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater to Surface Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 4.1.1 Does the corrective action program allow pathway screening (a site-specific demonstration that an exposure pathway is incomplete)? Yes No Unknown
- 4.2 **Numerical Concentration Limits:** Numerical concentration limits are determined based on which of the following factors (check all that apply)?
- Background concentration
 - Analytical detection limits
 - Regulatory limit (e.g., MCL)
 - Risk-based calculation
- 4.2.1 For a groundwater classified as a drinking water resource:
- MCL does not apply
 - MCL always applies, if available for the COC
 - Use lesser of MCL or site-specific value
 - Use greater of MCL or site-specific value
- 4.2.2 Concentration limits may change based on which of the following factors (check all that apply)?
- Land use
 - Groundwater classification
 - Assessment Tier
 - Physical controls
 - Institutional controls

- 4.3 **Development of Site-Specific Concentration Limits:** Does the corrective action program allow the applicant to develop site-specific soil and groundwater concentration limits for use in site remediation? Yes No Unknown
- 4.3.1 If yes, how many evaluation tiers are included in the development of site-specific concentration limits?
 1 2 3 4 >4 Unknown
- 4.4 **Generic Screening Limits:** For a Tier 1 evaluation or equivalent generic screening assessment, provide concentration limits for the following conditions:

	Residential		Commercial
	Drinking Water	Non-Drinking Water	Non-Drinking Water
<i>Benzene</i>			
GW • Groundwater Ingestion			
Soil • Soil to GW			
Soil • Direct Contact			
<i>MTBE</i>			
GW • Groundwater Ingestion			
Soil • Soil to GW			
Soil • Direct Contact			

- 4.5 **Applicable Target Risk Limits:** Are the generic screening concentration limits (i.e., Tier 1) used in this program based on target risk limits? Yes No Unknown (If yes, specify applicable target risk below:)
- 4.5.1 Carcinogens
- 4.5.1.1 Individual constituents: 10⁻⁴ 10⁻⁵ 10⁻⁶ Other: _____
- 4.5.1.2 Cumulative effects (multiple constituents): 10⁻⁴ 10⁻⁵ 10⁻⁶ Other: _____
- 4.5.2 Non-carcinogens
- 4.5.2.1 Individual constituents: 0.1 1 10 Other: _____
- 4.5.2.2 Cumulative effects (multiple constituents) : 0.1 1 10 Other: _____
- 4.5.3 Do risk limits vary by assessment tier? Yes No Unknown

5.0 REMEDY SELECTION

- 5.1 **Groundwater Remedy:** Does the selected groundwater remedy always have to prevent short-term groundwater plume growth? Yes No Unknown
- 5.2 **NAPL Remediation Requirements:** What quantity of NAPL observed in observation well triggers NAPL investigation/response actions? Sheen 1/8 inch thickness Other: _____
- 5.2.1 Is NAPL removal to extent practicable required in all cases?
 Yes
 No, only when certain risk factors apply.
 Unknown

- 5.2.2 If extent of NAPL remediation depends on risk factors, identify applicable factors triggering need for NAPL response:
- NAPL discharge to ground surface or SW
 - Explosive vapor condition in subsurface utility or other structure
 - NAPL plume expanding in area
 - NAPL contributing to expansion of dissolved plume
 - Site-specific risk evaluation indicates need for NAPL response
- 5.3 **Use of Monitored Natural Attenuation:** Is monitored natural attenuation (MNA) an acceptable remedy for management of affected groundwater, if effective? Yes No Unknown
- 5.3.1 Is state guidance available for implementation of monitored natural attenuation remedies?
 Yes No Unknown
- Web address: _____
 - Guidance document name: _____
 - Ordering information: _____
- 5.3.2 Is active removal or treatment of the "source area" (e.g., residual, non-mobile NAPL) always required when monitored natural attenuation is used as a groundwater remedy? Yes No Unknown
- 5.4 **Use of Engineering Controls:** Are engineering controls acceptable remedies, if effective Yes No Unknown (If yes, identify acceptable engineering controls)?
- Pavement for containment of affected soils
 - Barrier wall or cutoff trench for control of GW
 - Pump and treat for hydraulic containment
 - Other: _____
- 5.5 **Use of Institutional Controls:** Are institutional controls (e.g., land use restrictions, groundwater use restrictions) allowed or required for some remedies? Yes No Unknown (If yes, identify acceptable institutional control methods)
- Deed notice
 - Deed restriction
 - Restrictive covenant or other contract with land owner
 - Listing in state registry of affected properties
 - Agreed order or consent decree
 - Other: _____

6.0 CASE CLOSURE CRITERIA

- 6.1 **Groundwater Compliance Monitoring**
- 6.1.1 How many groundwater sampling events are required to demonstrate compliance with groundwater remediation standards following active remediation?:
 1 2-3 4 5-7 8 >8 No defined number
- 6.1.2 How many groundwater sampling events are required to demonstrate compliance with groundwater remediation standards following monitored natural attenuation?:
 1 2-3 4 5-7 8 >8 No defined number
- 6.1.3 What is the minimum time between groundwater sample events?
 1 month 3 months 6 months Site-specific Other: _____