



REMEDIATION DIVISION Petroleum Cleanup Section

Prioritization of Petroleum Releases Technical Guidance Document

This guidance is intended to assist with remediation and cleanup actions at petroleum releases regulated under the Montana Underground Storage Act (75-11 Part 5, MCA) or the Petroleum Storage Tank Cleanup Statute (75-11 Part 3, MCA).

I. Scope

The Department of Environmental Quality (DEQ) must ensure that the finite resources available for corrective action at petroleum release sites are prioritized to those sites that pose the greatest risk to human health, safety, and the environment. Because DEQ does not possess adequate resources to address all petroleum release sites simultaneously, work efforts must be focused on higher risk sites before conducting work at lower risk sites. The efficiency and effectiveness of the owner or operator (O/O) and their representatives to respond to and properly conduct corrective action greatly influences DEQ's ability to move sites through the remediation process, and ultimately, to closure.

II. Prioritization Categories

The priority categories generated by the priority ranking system are described below. At the end of this guidance is a matrix that summarizes the specific criteria for each category.

1.1) High Priority/Emergency Response

These sites may be sites where drinking water or surface water is impacted or imminently threatened, and contamination is uncontrolled. Vapor intrusion may be documented or imminently threatening. These sites typically will not be fully characterized and will often be newly discovered sites. Any uncharacterized site with known free product will be placed in this category.

1.2) High Priority Remediation (Free Product)

All unknowns about a site must be resolved before being placed in a remediation category. Sites in this category will have some known impact or immediate threat to a sensitive receptor, and contain free product. (For the purposes of the Priority Ranking System, sensitive receptors are defined as drinking water, surface water, buildings at risk for vapor intrusion, or utility corridors at risk for vapor or product migration.) These sites will be fully characterized and will have a remediation system in place, thereby distinguishing them from category 1.1 sites.

1.3) High Priority Remediation (No Free Product)

The only distinction between this category and category 1.2 is that these sites do not contain free product. Sites with active, effective remediation systems will remain priority 1.2 or priority 1.3 until the project manager and the consultant determine that the remediation system is no longer necessary. This is due to the risk of impacting sensitive receptors if rebound occurs, which can not be determined until the system has been shut down for an appropriate length of time and then contaminant levels monitored.

1.4) High Priority Characterization

These are either new sites where risk to human health and the environment are not known well enough to safely place them into another category, or sites where factors such as free product status, extent and magnitude of soil and/or groundwater contamination is unknown. Nearby sensitive receptors are known but are not likely threatened. Sites with unknown sensitive receptor location or status will also be placed in this category. All new releases with the exception of Emergency Response sites will be treated as High Priority Characterization sites until they are characterized or until enough information is obtained about the release to determine that it does not pose a significant risk to human health or the environment. If adequate information is provided within the 30-Day Release Report for new releases that demonstrate the release represents a lower priority, it will be ranked accordingly. DEQ will consider additional data or rationale provided by an O/O or their representative in making this determination.

2.0) Medium Priority Characterization

Some important information about the site is unknown, but all sensitive receptors have been identified and are not impacted or threatened. Sites with a third party soil or water impact, but no threat to drinking water, surface water, or threat of vapor intrusion, would fall into this category.

3.0) Medium Priority Remediation

All critical release/site information is identified and known, there are no impacts or threats to drinking water supplies or surface water, and contain no threat of vapor intrusion or migration into buildings or utility corridors. The groundwater contaminant plume may be expanding, and the site will eventually need remediation to address the source of contamination or the contaminated groundwater to expedite closure, but the absence of sensitive receptors supports a delay of remedial action in order to address sites with higher risks or known impacts to human health, safety, or to the environment.

4.0) Groundwater Management

These sites either meet the criteria for groundwater management (as defined in ARM 17-56-607(7)(e)), are being remediated by monitored natural attenuation (MNA), or are undergoing long term monitoring following active remediation. They have a defined groundwater plume with impacts exceeding DEQ risk based screening levels (RBSLs), but no sensitive receptors are threatened. These sites must have had adequate groundwater monitoring that demonstrates that the plume is stable or shrinking. Monitoring of select wells at sites in the Groundwater Management category will occur annually, biennially, triennially, or another frequency as determined by the DEQ project manager.

5.0) Pending Closure

These are sites that meet the criteria for closure as set forth in Technical Guidance Document #9. The only remaining information that *may* be necessary for closure is a landfarm sample.

III. Site Assignment

DEQ project managers determine the priority category of petroleum release sites using an Excel-based Priority Ranking Form. The form uses Excel to calculate the priority category based on the answers to the questions on the form. Assignment of sites based on this prioritization procedure applies to all petroleum releases cleanup under the Montana Underground Storage Tank Act (75-11 Part 5, MCA) and the Petroleum Storage Tank Statute (75-11 Part 3, MCA), including sites in the Leaking Underground Storage Tank (LUST) Trust Fund Program and the Petroleum Brownfields Program.

Once the priority category is determined, the highest priority sites will be assigned to project managers and actively addressed. When turnover occurs, high-priority sites are reassigned. DEQ staff members may temporarily suspend work on their mid-to-low priority sites in order to effectively manage reassigned high-priority sites. Preference will be given to high-priority sites over lower-priority sites whenever workload exceeds project management capabilities. Lower priority sites that are not assigned to project managers will be assigned to the “LUST Pool.”

Although prioritization categories are the primary tool for determining which release sites should be addressed first, the DEQ will consider other factors to best manage all petroleum releases with finite resources. Non-risk based factors may include the following:

Ongoing Active Remediation

If an engineered remediation system, such as a vapor extraction system, is effectively removing contamination from a site, it should be continued as long as it remains effective and cost efficient. Modifications, expansions, or significant repairs of a great enough scale that typically requires an approved work plan will be considered on a priority basis.

Adjacent Releases and Sites

DEQ will address lower-priority sites if their contaminant plumes commingle with plumes of a higher-priority release, and addressing both sites simultaneously if the work on both sites can be coordinated and conducted in an efficient manner.

Real-Estate Transactions/Property Development

Property transfers of former UST sites frequently raise many questions regarding cleanup and closure. DEQ will evaluate suspected and confirmed releases at former UST sites for the purpose of determining potential risks to human health and the environment so that the site can be ranked. If such sites receive a low-priority status, they will be treated like other low-priority sites. If resources are available, DEQ may actively assign a lower-priority site when contamination is hindering the sale of an idle property, and property redevelopment would benefit the community where the site is located. DEQ will consider redevelopment plans and requests from local governments. Funding from the LUST Trust Fund and Petroleum Brownfields Programs may become available at these sites to assist property owners with site assessment activities and eventual site cleanup.

Cleanup Opportunities

If resources are available, DEQ may consider addressing lower-priority sites when an opportunity for cleanup presents itself that may not reoccur for a long period of time. Examples of cleanup opportunities include highway reconstruction, razing of a building, or removal of other improvements that have hindered cleanup. It should be noted that factors creating a cleanup opportunity (e.g. demolition of a building, or removal of other improvements) are the responsibility of the owner/operator of a facility. These limiting factors shall be addressed prior to DEQ considering prioritizing work at an opportunistic cleanup. The cost benefit of addressing cleanups under these circumstances will be evaluated on an individual site basis.

If an owner/operator disagrees with the priority category of the petroleum release or has additional questions he/she should contact the assigned DEQ project manager to further discuss.

Project managers will re-rank sites as corrective action progresses. Once corrective action begins at a site, DEQ will endeavor to continue to address the site completely through the closure process, regardless of the re-ranked priority. However, if resource constraints require delaying work at sites where cleanup has already begun in order to apply those resources to higher priority sites, the most current priority ranking value will be used in the decision.

LUST Pool Sites

DEQ uses the name category "LUST pool" for mid-to-low priority releases that are not currently assigned. Mid-to-low priority releases managed by either the Kalispell or Billings field office will have the city also denoted (LUST pool Kalispell or LUST pool Billings). If a release has LUST pool for a project manager and an owner/operator would like to do work on that release that individual should contact the Petroleum Tank Cleanup Section @ 406-444-6443.

PETROLEUM RELEASE SITE PRIORITIZATION MATRIX-3/4/2008

Priority	Free Product	Soil Contamination	Ground Water Contamination	Active Remediation System	Surface Water Contamination	Vapor Migration	Utility Trenches
#1.1 High Priority/Emergency response	Yes	Yes, exceeds RBSLs or extent unknown	Drinking water well impacted or imminently threatened	No	Surface water impacted or imminently threatened	Vapor documented in buildings, or buildings imminently threatened	Utility locations not investigated. Extent of impact unknown
#1.2 High Priority Remediation – FP	Yes	Yes, exceeds RBSLs	Drinking water well impacted or imminently threatened	Yes	Surface water contaminated or imminently threatened	Vapor documented in buildings, or buildings imminently threatened	WATER line in contact with contaminated soil or ground water, or other utilities threatened by fire/explosion hazard
#1.3 High Priority Remediation	No	Yes, exceeds RBSLs	Drinking water well impacted or imminently threatened	Yes	Surface water nearby (<100 ft.) threatened	Buildings imminently threatened	Water line potentially impacted, other utilities impacted
#1.4 High Priority Characterization	Unknown	Yes, exceeds RBSLs, or extent unknown	Shallow potable ground water. Wells nearby (<1000 ft.)	No	Surface water nearby (<1,000 ft.) but not threatened	Buildings nearby but not immediately threatened, no apparent potential for vapor migration	Water line potentially impacted, other utilities impacted, extent is unknown
#2 Medium Priority Characterization	Unknown	Yes, exceeds RBSLs, or extent unknown	Potable ground water contaminated but no wells nearby (>1,000 ft.)	No	Surface water nearby (<1,000 ft.) but not threatened	Buildings nearby but not immediately threatened, no apparent potential for vapor migration	No water line impacts, but other utilities impacted, extent is known
#3 Medium Priority Remediation	No	Yes, exceeds RBSLs	Ground water not usable, no wells nearby (>1,000 ft)	No	No surface water nearby (>1000 ft) or threats resolved	No vapor threat or threats resolved	Water lines not impacted, other utilities impacted and vapor migration controlled
#4 Ground Water Management	No	Contaminated soil partially remediated	No wells nearby, ground water not usable, or plume stable or shrinking	No	No surface water impact, or threats resolved	No vapor threat or threats resolved	Utilities not in contact with contaminated soil or ground water, or vapor migration controlled
#5 Pending Closure	No	Soil remediated to less than RBSLs	No, or below RBSLs, or below HHSs, and RBSL exceedances proven not to be a risk to sensitive receptors	No	No surface water impact, or threats resolved	No vapor threat or threats resolved	Utilities not in contact with contaminated soil or ground water or vapor migration controlled