

ENVIRONMENTAL QUALITY

CHAPTER 56

UNDERGROUND STORAGE TANKS
PETROLEUM AND CHEMICAL SUBSTANCES

Subchapter 6

Release Response and Corrective Action for Tanks

Containing Petroleum or Hazardous Substances

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Subchapter 6

Release Response and Corrective Action for Tanks
Containing Petroleum or Hazardous Substances

17.56.601 GENERAL (1) Except as otherwise provided in this rule, owners and operators of UST systems must, in response to a confirmed release from a tank or system, comply with the requirements of this subchapter. Owners or operators of PSTs seeking reimbursement from the Montana petroleum tank release cleanup fund, must, in response to a confirmed release from a tank or system, comply with the requirements of this subchapter. This subchapter does not apply to USTs excluded under ARM 17.56.102(2) and (4) and UST systems subject to RCRA Subtitle C corrective action requirements under section 3004(u) of the Resource Conservation and Recovery Act, as amended.

(2) If corrective action, initial response and abatement, initial site history, remedial investigation, preparation of remedial investigation and cleanup plans, or cleanup, or any of them are conducted by:

(a) the department through a response action contractor employed by the department, this subchapter governs only to the extent it is not inconsistent with the master contract and task order agreed to between the contractor and the department.

(b) the owner or operator of the PST or UST system, whether with or without a response action contractor, this subchapter governs only to the extent it is not inconsistent with any order issued by a court, the department, or any corrective action plan approved by the department. (History: 75-10-405, 75-11-319, MCA; IMP, 75-10-405, 75-11-309, MCA; NEW, 1989 MAR p. 1912, Eff. 11/23/89; TRANS, from DHES, 1995 MAR p. 2259; AMD, 2016 MAR p. 1694, Eff. 9/24/16.)

17.56.602 INITIAL RESPONSE AND ABATEMENT MEASURES (1) Upon confirmation of a release in accordance with ARM 17.56.504 or after a release from the PST or UST system is identified in any other manner, owners and operators must:

- (a) perform the following initial response actions:
 - (i) report the release to the department in accordance with ARM 17.56.506;
 - (ii) take immediate action to prevent any further release of the regulated substance into the environment; and
 - (iii) identify and mitigate fire, explosion, and vapor hazards.

(b) perform the following initial abatement measures:

(i) remove as much of the regulated substance from the PST or UST system as is necessary to prevent further release into the environment;

(ii) visually inspect any aboveground releases or exposed belowground releases and prevent further migration of the released substance into surrounding soils and ground water;

(iii) continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the UST excavation zone or the PST and entered into subsurface structures (such as sewers or basements). Vapor concentrations measured as gasoline in surface or subsurface structures (basements, buildings, utility conduits) must be reduced to a level below the action levels established by the department. A combustible gas indicator should be used to determine explosive levels measured from the lowest point in a structure. To determine health-based vapor levels, air samples should be collected from the breathing space approximately four feet above the floor. The Montana Quality Assurance Plan for Investigation of Underground Storage Tank Releases should be consulted for appropriate sampling and analytical methods for collection of air samples. The following action levels for gasoline vapors are established by the department:

(A) action level to guard against explosion or fire is 10% of the lower explosive limit of gasoline, (1300 parts per million (ppm));

(B) action level to protect the health of individuals exposed in affected structures eight hours per day, five days per week is 30 ppm; and

(C) action level to protect the health of individuals in affected structures with full-time occupancy is seven ppm. If any action level is exceeded, immediate action must be taken by the owners and operators to reduce concentrations to below the above-specified action level. Monitoring and mitigation must continue for as long as they are necessary as indicated by the remedial investigation and these action levels.

(iv) remedy hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, abatement, or cleanup activities. If these remedies include treatment or disposal of soils, owners and operators must comply with applicable state and local requirements. Soils heavily contaminated with leaded gasoline, waste oil, solvents, or hazardous substances must be tested for the presence of hazardous wastes. Treatment or disposal of all soils containing hazardous wastes must be approved by the department.

(v) determine the extent and magnitude of contamination in soils, ground water, surface water or both, which contamination has resulted from the release at the PST or UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the nature of the stored substance, the type of backfill, depth to ground water, and other factors as appropriate for identifying the presence and source of the release. Samples must be collected and analyzed in accordance with ARM 17.56.504(1)(b); and

(vi) investigate surface water and ground water to determine if existing drinking water sources have been adversely impacted by the release. If so, immediately provide an alternate supply of safe drinking water to the impacted persons, residences or businesses.

(c) Investigate to determine the possible presence of free product, begin free product removal as soon as practicable, and:

(i) 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;

(ii) use abatement of free product migration as a minimum objective for the design of the free product removal system; and

(iii) handle any flammable products in a safe and competent manner to prevent fires or explosions in accordance with local and state fire codes.

(d) Within 30 days after release confirmation, submit a report to the department on a form designated by the department summarizing the initial response and abatement measures taken under (1)(a) through (c) and any resulting information or data. The report must include data on the nature, estimated quantity, and source of the release. If initial response and abatement measures extend beyond the 30-day time period, owners and operators must also submit an additional follow-up completion report according to a schedule established by the department. If free product is removed, the following information must also be provided in or with the report:

(i) the name of the person(s) responsible for implementing the free product removal measures;

(ii) the estimated quantity, type, and thickness of free product observed or measured in wells, boreholes, and excavations;

- (iii) the type of free product recovery system used;
- (iv) whether any discharge will take place on-site or off-site during the recovery operation and where this discharge will be located;
- (v) the type of treatment applied to, and the effluent quality expected from, any discharge to sanitary sewers, surface water, ground water, or atmosphere and a copy of any current state or federal discharge permit;
- (vi) the steps that have been or are being taken to obtain necessary permits for any discharge; and
- (vii) the disposition of the recovered free product. (History: 75-11-319, 75-11-505, MCA; IMP, 75-11-309, 75-11-505, MCA; NEW, 1989 MAR p. 1912, Eff. 11/23/89; TRANS, from DHES, 1995 MAR p. 2259; AMD, 2003 MAR p. 1079, Eff. 5/23/03; AMD, 2004 MAR p. 1391, Eff. 6/18/04.)

17.56.603 INITIAL SITE HISTORY (1) Unless directed to do otherwise by the department, owners and operators must assemble and provide to the department information about a site where a release has been confirmed which must include, but is not necessarily limited to the following:

- (a) a legal description of the real property at which the release occurred;
- (b) a history of the ownership and operation of the PST or UST from which the release occurred, since at least the time at which the release from the tank did or could have occurred at the site, including the following:
 - (i) the name, current address and telephone number of all current owners and operators;
 - (ii) the name, current address and telephone number (if known) of all past owners and operators;
 - (iii) the years of current and past ownership and/or operation;
 - (iv) a description of the activities conducted at the site by each current and past owner/operator; and
 - (v) a general construction history of site.
- (c) a map or maps and descriptions or symbols appropriate in scale and scope showing the following within a 500 foot (unless otherwise noted) radius of the site:
 - (i) adjacent and nearby buildings;
 - (ii) owner/operator each building;
 - (iii) paved (concrete or asphalt) areas;
 - (iv) property line defining the site;
 - (v) location of above and underground tanks and associated lines, pumps, and dispensers;
 - (vi) location of former tanks on property;
 - (vii) soil boring locations (if done);
 - (viii) monitoring well locations (if done);
 - (ix) underground utilities on and adjacent to the property (sewer, water, telephone, electric);
 - (x) basements and tile drain and sump systems on and adjacent to the property;
 - (xi) street maps or named/numbered streets;
 - (xii) all wells and springs within a 1/2 mile radius of the site;
 - (xiii) water bodies (rivers, ponds, lakes, and irrigation diversion) within a 1/2 mile radius of the site;
 - (xiv) surface elevation of the site of the release as taken from surveys, topographic maps of city; and
 - (xv) north arrow and map legend (scale, such as 1 inch = 100 feet).
- (d) the following information concerning the PST or UST systems on the property:
 - (i) date of installation of all the tank or tanks on the site;

- (ii) dates of installation and removal of all tanks previously located on the site;
 - (iii) size of all tanks on site (diameter, length, gallons);
 - (iv) tank construction material of all tanks on site;
 - (v) present contents of all tanks on site;
 - (vi) previous contents of all tanks on site;
 - (vii) type and locations of product pumps, piping, and dispensers;
 - (viii) method and results of product inventory reconciliation (describe and attach copies of product inventory charts);
 - (ix) corrosion protection on tanks and lines (yes/no and description);
 - (x) type and location of leak detectors;
 - (xi) type of fill under and around tanks and lines (clay, sand, or other material); and
 - (xii) type of tank anchors (if any).
- (e) a description of all leaks, spills, overfills, or other releases from the PST or UST systems located on the site:
- (i) date of release;
 - (ii) date release was reported to the department;
 - (iii) product released;
 - (iv) quantity lost;
 - (v) quantity recovered;
 - (vi) location on site;
 - (vii) cleanup action taken; and
 - (viii) offsite effects.
- (f) any tank or line test dates, methods used for conducting the tests, tester's name, address, and phone number, and results of the test (include data and worksheets or calculations).
- (g) if the PST or UST system (tanks and lines) or any part of it has been removed from the ground, provide a description of the condition of it by answering the following questions and providing the other information called for below:
- (i) Was corrosion present?
 - (ii) Was there a visible leak?
 - (iii) Were there any loose fittings?
 - (iv) Was the tank/line carefully examined for signs of leakage?
 - (v) Was an independent observer (fire marshal, city official, testing laboratory employee, etc. but not your employee) present when tank(s) were removed?
 - (A) name of the independent observer;
 - (B) organization;
 - (C) address; and
 - (D) telephone.
 - (vi) Provide pictures of removed tanks and lines if pictures are available;

- (vii) State the disposition of tank(s) (who took it, where was it disposed);
 - (viii) Provide a description of soil conditions in the area of the tank and line excavation, with an estimate of the volumes:
 - (A) odors present and method of measurement;
 - (B) visible product in soil;
 - (C) sheen on water mixed with soil;
 - (D) sheen on groundwater in excavation;
 - (E) product on groundwater in excavation;
 - (F) soil sampling descriptions; and
 - (G) instrument reading (if available).
 - (ix) State the disposition of the soil removed during the excavation or at any other time after the release.
 - (h) copies of all reports previously completed, such as reports on soil, groundwater, or other reports pertinent to the site.
- (2) Within 30 days of release confirmation, owners and operators must submit the information collected in compliance with (1) of this rule to the department in a manner that demonstrates its applicability and technical adequacy. Owners and operators must provide an explanation to the department regarding any information requested in (1) of this rule that cannot be obtained. (History: 75-10-405, 75-11-319, MCA; IMP, 75-10-405, 75-11-309, MCA; NEW, 1989 MAR p. 1912, Eff. 11/23/89; TRANS, from DHES, 1995 MAR p. 2259; AMD, 2016 MAR p. 1694, Eff. 9/24/16.)

17.56.604 REMEDIAL INVESTIGATION (1) In order to determine the full extent and location of soils contaminated by the release and the presence and concentrations of free and dissolved product contamination in the surface water and in ground water, owners and operators must conduct a remedial investigation of the release, the release site, and the surrounding area possibly affected by the release if any of the following conditions exist:

(a) there is evidence that ground water wells have been affected by the release (e.g., as found during release confirmation or previous corrective action measures);

(b) free product is found to need recovery in compliance with ARM 17.56.602(1)(c);

(c) there is evidence that contaminated soils may be in contact with ground water (e.g., as found during conduct of the initial response measures required under ARM 17.56.602); or

(d) the department requests a remedial investigation, based on the known or potential effects of contaminated soil or ground water on nearby surface water, ground water, and human health.

(2) After reviewing information required under ARM 17.56.602 and 17.56.603, the department may determine that no additional investigation or corrective action is necessary; however, the department may require the owners and operators to initiate and continue compliance monitoring as determined by the department.

(3) A remedial investigation generally is an expanded site assessment more detailed in scope than the initial response and abatement measures under ARM 17.56.602, which must define the nature, extent, and magnitude of contamination and identify threats to public health, welfare and to the environment. A remedial investigation work plan must be submitted to the department prior to implementation by the owners and operators. The department shall submit a copy of a work plan from any owner or operator who is or may be seeking reimbursement to the appropriate local government office with jurisdiction over corrective action of the release. The office shall respond with any comments within 15 days of receipt of the plan and the department shall approve or disapprove the plan within 15 days of receipt from the local government. The following information is required to complete the remedial investigation:

- (a) site map(s) showing all sampling locations, including the site(s) of:
 - (i) borings;
 - (ii) monitoring wells;
 - (iii) recovery wells;
 - (iv) vapor survey points; and
 - (v) sites where any other samples were taken.
- (b) soil and bedrock technical information and map(s), including:
 - (i) soil type, thickness, and classification below the site of the release;
 - (ii) unconsolidated material and bedrock type, thickness, and formation name below the site of the release;
 - (iii) boring logs and monitoring well logs (description of well, well construction methods, sediment odors, and blow count);
 - (iv) soil characteristics (grain size, sorting, origin, texture, permeability, classification);
 - (v) observed contamination (visual, odors, and vapor survey results); and
 - (vi) laboratory analytical results.
- (c) ground water technical information and map(s), including:
 - (i) general description and characteristics of aquifers and unsaturated zone below the site of the release, including:
 - (A) hydraulic characteristics;
 - (B) depth to water table;
 - (C) surveyed water elevations and contours (potentiometric surface);
 - (D) direction of ground water flow;
 - (E) rate of ground water flow;
 - (F) perched conditions; and
 - (G) connections to other aquifers.
 - (ii) location, ownership, use and construction of all municipal, domestic, irrigation, industrial and monitoring wells within ½ mile of the site;
 - (iii) sampling description;
 - (iv) results of laboratory analysis.
- (d) surface water technical information and map(s), including:
 - (i) location and use of all surface water within one mile of site;
 - (ii) ground water/surface water discharge points;
 - (iii) sampling description; and
 - (iv) results of laboratory analysis.

(e) description of and map(s) showing the extent of free product and vapors discovered, whether as a result of current or past vapors/seepage, in basements and other subsurface structures and utilities. The description must include a copy of the vapor survey.

(f) technical conclusions, which must be stated with reasonable professional certainty and under the standard of care applicable, must include at least:

(i) source of the release;

(ii) current extent of and potential for the release (determined with field or laboratory analytical detection equipment) in or through the following media:

(A) soil; lateral and vertical extent of fuel-soaked soil;

(B) free product; areal extent;

(C) water; dissolved phase (water soluble constituents);

(D) vapor;

(g) sampling summary charts, which clearly identify by the date on which the samples were taken, all of the following: sample ID#, sampling location, sample type, date analyzed, laboratory conducting the analysis, analytical method, and results of the analysis.

(h) laboratory report sheets.

(4) If a remedial investigation has been conducted, owners and operators must submit a report containing the information collected under (3) within 120 days of release confirmation. If investigation extends beyond the time for submission of the report, owners and operators must also submit an additional follow-up completion report according to a schedule established by the department. (History: 75-11-319, 75-11-505, MCA; IMP, 75-11-309, 75-11-505, MCA; NEW, 1989 MAR p. 1912, Eff. 11/23/89; TRANS, from DHES, 1995 MAR p. 2259; AMD, 2003 MAR p. 1079, Eff. 5/23/03; AMD, 2007 MAR p. 2124, Eff. 12/21/07; AMD, 2016 MAR p. 1694, Eff. 9/24/16.)

17.56.605 CLEANUP PLAN (1) At any time after reviewing the information submitted pursuant to ARM 17.56.602, 17.56.603, and/or 17.56.604, the department may require owners and operators to submit additional information or to develop and submit a cleanup plan for responding to contaminated soils and groundwater. If a plan is required, owners and operators must submit the plan according to a schedule and format established by the department. Alternatively, owners and operators may, after fulfilling the requirements of ARM 17.56.602 through 17.56.604, choose to submit a cleanup plan for responding to contaminated soil and groundwater. In either case, owners and operators are responsible for submitting a plan that provides for adequate protection of human health, safety, and the environment as determined by the department, and must modify their plan as necessary to meet this standard.

(2) In order to prepare the cleanup plan, owners and operators must properly evaluate and interpret the field and analytical results of the site or remedial investigation to define the extent and magnitude of free product, adsorbed phase product, dissolved phase plume and vapor phase product.

(3) The owners and operators must screen and select cleanup alternatives to develop a matrix evaluation of cleanup alternatives which considers cost, performance, reliability, implementation, safety, and effects on public health and the environment. Information on all cleanup alternatives, with an explanation of why any alternative was selected, must be included in the cleanup plan. Cleanup alternatives may include, but are not limited to, the following types of action:

- (a) take no further action;
- (b) excavate the contaminated soil and/or treat and/or dispose of the same;
- (c) in-place soil treatment;
- (d) product recovery;
- (e) groundwater removal and treatment;
- (f) groundwater gradient control (hydrodynamic);
- (g) vapor control measures;
- (h) enhanced biodegradation;
- (i) drinking water supply replacement;
- (j) relocation of affected residences and/or businesses; and
- (k) establishment of a petroleum mixing zone in accordance with ARM

17.56.607.

(4) Upon receipt of a cleanup plan from any owner or operator who is or may be seeking reimbursement, the department shall submit a copy of the plan to the appropriate local government office with jurisdiction over corrective action of the release. The office shall respond with any comments within 15 days of receipt of the plan and the department shall approve or disapprove the plan within 15 days of receipt from the local government.

(5) The department will approve the cleanup plan only after ensuring that implementation of the plan will adequately protect human health, safety, and the environment. In making this determination, the department must consider the following factors as appropriate:

- (a) the physical and chemical characteristics of the regulated substance, including its toxicity, persistence, and potential for migration;
- (b) the hydrogeologic characteristics of the facility and the surrounding area;
- (c) the proximity, quality, and current and future uses of nearby surface water and groundwater;
- (d) the potential effects of residual contamination on nearby surface water and groundwater;
- (e) an exposure assessment that identifies routes by which receptors may be exposed to contaminants and estimates contaminant concentrations to which receptors may be exposed; and
- (f) any information assembled in compliance with this subchapter.

(6) Within 30 days of department approval of the cleanup plan or as directed by the department, owners and operators must implement the plan, including any modifications made by the department to the plan. Owners and operators must monitor, evaluate, and report the results of implementing the plan in accordance with a schedule and in a format established by the department. During implementation of the cleanup plan, a status letter shall be submitted quarterly to the department. The cleanup plan must contain a plan and schedule for compliance monitoring to evaluate the effectiveness of cleanup activities. Compliance monitoring must continue for a period of at least two years after completion of cleanup activities specified in the cleanup plan, or another reasonable time period approved by the department. Results of compliance monitoring will be evaluated by the department on a site-specific basis and compared to cleanup goals that should be outlined in the cleanup plan. Final completion of cleanup activities and compliance monitoring must be approved by the department.

(7) Owners and operators may, in the interest of minimizing environmental contamination and promoting more effective cleanup, begin cleanup of soil and groundwater before the cleanup plan is approved provided that they:

- (a) notify the department of their intention to begin cleanup;
- (b) comply with any conditions imposed by the department, including halting cleanup or mitigating adverse consequences from cleanup activities; and
- (c) incorporate these self-initiated cleanup measures in the cleanup plan that is submitted to the department for approval.

(8) As part of corrective action, owners and operators must conduct restoration activities as soon as the completion of any part of the cleanup plan will allow. Restoration activities must include:

(a) restoring utility services disrupted as a result of investigative or corrective action activities;

(b) properly abandon or reclaim recovery and monitoring systems, including any wells, in accordance with state law or rules, after recovery and monitoring operations are terminated. Proper abandonment and reclamation includes reclamation of recovery culverts, infiltration galleries, electrical systems and plumbing systems, and landscaping necessary to restore any disturbed property to its precorrective action state. (History: 75-11-319, 75-11-505, MCA; IMP, 75-11-319, 75-11-505, MCA; NEW, 1989 MAR p. 1912, Eff. 11/23/89; TRANS, from DHES, 1995 MAR p. 2259; AMD, 2011 MAR p. 2279, Eff. 10/28/11; AMD, 2016 MAR p. 1694, Eff. 9/24/16.)

17.56.606 PUBLIC PARTICIPATION (1) For each confirmed release that requires a cleanup plan under ARM 17.56.605, the department must provide notice to the public by means designed to reach those members of the public directly affected by the release and the planned cleanup activities. This notice may include, but is not limited to, public notice in local newspapers, block advertisements, public service announcements, letters to individual households, or personal contacts by field staff.

(2) The department must ensure that site release information and decisions concerning the cleanup plan are made available to the public for inspection upon request.

(3) Before approving a cleanup plan, the department may hold a public meeting to consider comments on the proposed cleanup plan if there is sufficient public interest, or for any other reason.

(4) The department must give public notice that complies with (1) if implementation of an approved cleanup plan does not achieve the established cleanup levels in the plan and termination of that plan is under consideration by the department. (History: 75-10-405, 75-11-319, MCA; IMP, 75-10-405, 75-11-309, MCA; NEW, 1989 MAR p. 1912, Eff. 11/23/89; TRANS, from DHES, 1995 MAR p. 2259.)

17.56.607 RELEASE CATEGORIZATION (1) The department shall categorize all releases from USTs and PSTs regulated under this chapter as active, transferred, resolved, ground water management, or resolved with a petroleum mixing zone releases.

(2) Releases that do not meet the criteria set forth in (3), (4), (7), or (10) must be categorized as active.

(3) The department may categorize a release as transferred if another state or federal program assumes jurisdiction over the facility and all releases and threatened releases of hazardous or deleterious substances from USTs or PSTs regulated under this chapter are to be addressed by that program at the facility. The department shall notify the owner or operator before categorizing the release as transferred. The notice must state which state or federal program has jurisdiction over the release.

(4) The department may categorize a release as resolved if the department has determined that all cleanup requirements have been met and that conditions at the site ensure present and long-term protection of human health, safety, and the environment. The following requirements must also be met before a release may be categorized as resolved:

(a) documented investigations, conducted in accordance with ARM 17.56.604, identify the extent or absence of contamination in the soil, ground water, surface water, and other environmental media relevant to the release;

(b) risks to human health, safety and the environment from residual contamination at the site have been evaluated using methods listed in (4)(b)(i) or (ii) and the evaluation indicates that unacceptable risks do not exist and are not expected to exist in the future. The department considers a total hazard index that does not exceed 1.0 for noncarcinogenic risks, and a total cancer risk that does not exceed 1×10^{-5} , to be an acceptable risk level. Owners or operators, or other persons may, with department approval, use either of the following methods to evaluate risks from a release:

(i) Montana Tier 1 Risk-based Correction Action Guidance for Petroleum Releases (RBCA) for evaluation of risks to human health, safety and the environment associated with surface and subsurface soil and ground water contamination; or

(ii) a site-specific risk assessment method approved by the department for evaluation of risks to human health, safety, and the environment associated with contamination, or likely contamination, that demonstrates to the department's satisfaction that current and potential future exposure pathways are incomplete;

(c) all appropriate corrective actions associated with the release and required by the department, including compliance monitoring and confirmatory sampling, have been completed;

(d) all free product has been removed to the maximum extent practicable;
and

(e) all applicable environmental laws associated with the release have been met. These applicable requirements may include, but are not limited to, air quality, drinking water and monitoring well requirements, solid waste management requirements, hazardous waste management requirements, national pollutant discharge elimination system (NPDES) and Montana pollutant discharge elimination system (MPDES) requirements, underground injection controls and standards, UST requirements, noxious weed control, ground water and surface water quality standards, nondegradation requirements, storm water requirements, and requirements for the protection of endangered species, historic sites, wetlands and floodplains.

(5) The department may recategorize a resolved or a resolved with a petroleum mixing zone release as active if the department receives information with which it determines that further corrective action is necessary. Such information may include, but is not limited to, changes in land use or site conditions, including removal, alteration, or failure to maintain department-approved institutional controls, engineering controls, or physical conditions, that may increase the potential for adverse impacts to human health, safety, or to the environment from residual contamination. The department shall notify the owner or operator of the department's determination to recategorize a resolved release as active.

(6) If a release is categorized as resolved, the department shall send a letter to the owner or operator that:

(a) states that, based on information available, no further corrective action will be required at that time;

(b) requires that all monitoring wells, piezometers, and other ground water sampling points either be abandoned or maintained by the owner or operator in accordance with applicable rules and requirements;

(c) describes the nature, extent, concentration, and location of any residual contamination;

(d) describes any institutional controls, engineering controls, or physical conditions that must be maintained to protect human health, safety, or the environment from residual contamination;

(e) states the reasons why the department believes the release does not pose a present or future risk to human health, safety, or to the environment; and

(f) states that the department reserves the right to conduct or to require further corrective action if a new release occurs or if the department receives new or different information related to the release.

(7) The department may categorize a release as ground water management if:

- (a) site conditions satisfy all criteria listed under (4)(a) and (d);
- (b) risk evaluations conducted in accordance with (4)(b) demonstrate that there are no unacceptable risks to human health, safety, ecological receptors, surface water, or aquatic sediments from exposure or likely exposure to contamination;
- (c) all cleanup actions required by the department have been completed except for continued monitoring required under (8);
- (d) ground water quality parameters exceed:
 - (i) a water quality standard or nondegradation requirement;
 - (ii) a standard established as a drinking water maximum contaminant level published in 40 CFR Part 141; or
 - (iii) a risk-based screening level published in RBCA;
- (e) ground water performance monitoring and natural attenuation data collected in accordance with U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response Directive 9200.4-17P indicate that the extent, magnitude, and concentration of the dissolved contaminant plume have been stable or decreasing under fluctuating hydrogeologic conditions for a period of monitoring that is determined by the department to be sufficient to detect unacceptable risks to human health, safety, or to the environment;
- (f) the source area contamination has been eliminated, controlled, or reduced to the maximum extent practicable, in accordance with U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response Directive 9200.4-17P, and any remaining source area contamination presents a low long-term threat to human health, safety or to the environment;
- (g) documented investigations demonstrate that taking additional or different cleanup action is not feasible and will not meet site corrective action objectives within a reasonable timeframe as compared to monitored natural attenuation; and
- (h) institutional controls are in place to ensure that identified risks to human health and safety are reduced to acceptable levels. For the purposes of this rule, institutional controls must consist of:
 - (i) deed restrictions or restrictive covenants that run with the land and that have been approved by the department and duly recorded;
 - (ii) a designated controlled ground water area as provided for in 85-2-506, MCA;
 - (iii) environmental control easements created and approved in accordance with 76-7-101 through 76-7-213, MCA; or
 - (iv) another method approved by the department that has been shown to ensure that risk to human health has been reduced to acceptable levels.

(8) If the department categorizes a release as ground water management, the owner or operator shall monitor ground water in accordance with a monitoring program developed for the site and approved by the department.

(a) The monitoring program must specify the location, frequency, and type of sampling required to evaluate site conditions and confirm that residual contamination at the site is either decreasing in extent and concentration or remaining stable.

(b) The frequency of monitoring must not be less often than one monitoring event every three years.

(c) Monitoring must continue until the corrective action objectives for the site are achieved and the release may be categorized as resolved in accordance with (4).

(d) In developing a ground water monitoring program, the department shall consider:

(i) the nature, extent, and concentration of the contaminant plume;

(ii) the locations of human health and environmental receptors relative to the predicted migration path of the plume;

(iii) historical or reasonably anticipated land use in the area; and

(iv) any other factors that the department determines may affect the risk from residual contamination to human health, safety, or the environment.

(9) If the department categorizes a release as ground water management, the department shall send a letter to the owner or operator that:

(a) states that contamination from the release will be addressed by monitored natural attenuation;

(b) contains the information in (6)(b), (c), and (e);

(c) states the reasons why the department believes that the release does not pose an unacceptable present or future risk to human health, safety, or ecological receptors;

(d) includes a monitoring program that complies with (8);

(e) includes a schedule for review of any institutional controls;

(f) states that the release is not categorized as resolved and documents all conditions that preclude the site from being categorized as resolved; and

(g) states that the department may require further remedial investigation or corrective action to determine whether the requirements in (4) are met if the owner, operator or department proposes to recategorize the release as resolved.

(10) The department may categorize a release as resolved with a petroleum mixing zone and send a letter to the owner or operator in accordance with (11), if the department has determined that conditions at the site ensure present and long-term protection of human health, safety, and the environment and that residual petroleum in soil and ground water will continue to be remediated through natural attenuation processes without additional intervention, active cleanup, or monitoring. The following requirements must also be met before a release may be categorized as resolved with a petroleum mixing zone:

(a) the petroleum mixing zone is included in a corrective action plan and all the conditions set forth in 75-11-508, MCA, are met;

(b) documented investigations, conducted in accordance with ARM 17.56.604, identify the extent or absence of contamination in the soil, ground water, surface water, or other environmental media;

(c) all free product has been removed to the maximum extent practicable;

(d) risk evaluations conducted in accordance with (4)(b) demonstrate that there are no unacceptable risks to human health, safety, ecological receptors, surface water, or aquatic sediments from exposure or likely exposure to contamination;

(e) all appropriate corrective actions associated with the release have been completed and no further corrective actions are reasonably required by the department;

(f) all applicable environmental laws listed in (4)(e) associated with the release have been met, except that ground water quality exceeds a water quality standard for petroleum or petroleum constituents. In addition, ground water quality may exceed a nondegradation requirement or a standard established as a drinking water maximum contaminant level published in 40 CFR Part 141 for petroleum or petroleum constituents;

(g) ground water performance monitoring indicates that the extent, magnitude, and concentration of the dissolved contaminant plume have been stable or decreasing under fluctuating hydrogeologic conditions for a period of monitoring that is determined by the department to be sufficient to detect unacceptable risks to human health and safety;

(h) the source area contamination has been removed to the maximum extent practicable, and any remaining source area contamination does not pose an unacceptable present or future risk to human health, safety, or the environment;

(i) at the downgradient boundary of a petroleum mixing zone, the concentration of any petroleum constituent does not exceed a water quality standard adopted by the Board of Environmental Review pursuant to 75-5-301, MCA. The downgradient boundary of a petroleum mixing zone must be determined by documented investigations conducted in accordance with ARM 17.56.604;

(j) a petroleum mixing zone must remain within the facility property boundary unless a recorded easement, a restrictive covenant, or another institutional control approved by the department on an adjoining property allows the petroleum mixing zone to extend off the facility property. For purposes of this rule, the term "facility property" means a single parcel or contiguous parcels on which one or more petroleum storage tanks are or were located, provided that contiguous parcels must be under single ownership at the time the petroleum mixing zone is established;

(k) a petroleum mixing zone may not extend either beyond 500 feet from the origin of the release or within 500 feet of an existing drinking water well or surface water unless the department determines, in writing and based on site-specific circumstances, that distances not meeting the 500-foot criteria, as specified in the determination, will ensure present and long-term protection of human health and safety and of the environment in the specific circumstances. In making this determination, the department shall consider the following factors:

- (i) the specific contaminants and concentrations involved;
- (ii) the nature, hydrogeologic characteristics, and quality of the aquifer(s) involved;
- (iii) the nature and quality of any well or surface water potentially affected;
- (iv) the degree of certainty that site-specific scientific data supports the determinations made pursuant to (c), (d), (g), and (h); and
- (v) any other consideration determined by the department to be relevant in the particular circumstances.

(l) department-approved institutional controls, engineering controls, or physical conditions are in place to ensure that identified risks to human health and safety are reduced to acceptable levels. For the purposes of this rule, institutional controls, engineering controls, or physical conditions may consist of:

- (i) easements, deed restrictions, or restrictive covenants that run with the land and that have been approved by the department and duly recorded;
- (ii) a designated controlled ground water area as provided for in 85-2-506, MCA;

(iii) environmental control easements created and approved in accordance with 76-7-101 through 76-7-213, MCA; and

(iv) an engineering control, physical condition, or other method or condition approved by the department and designed to ensure that risk to human health has been reduced to acceptable levels; and

(m) a notice is placed on the deed of all parcels of real property on which the facility is located that the source of the release is resolved with a petroleum mixing zone. This deed notice must describe the nature and location of the residual contamination remaining in the soil and ground water at the facility and must describe all institutional controls, engineering controls, physical conditions, or other controls or conditions required to maintain the petroleum mixing zone.

(11) If the department categorizes a release as resolved with a petroleum mixing zone, the department shall send a no-further-action letter to the owner or operator. The letter must describe the following conditions required to maintain the petroleum mixing zone:

(a) no further corrective action will be required to address the release provided that all institutional controls, engineering controls, physical conditions, or other department-approved controls or conditions are maintained;

(b) residual contamination from the release will be addressed by natural attenuation processes designed to reduce residual concentrations of contaminants to levels that meet all applicable environmental laws, listed in (4)(e), at a point in the future;

(c) all monitoring wells, piezometers, and other ground water sampling points either be abandoned or maintained by the owner or operator in accordance with applicable rules and requirements and as directed by the department. Monitoring well maintenance requirements include reasonable well maintenance necessary to avoid waste or contamination of ground water in accordance with Title 37, chapter 43, MCA. Maintenance does not include monitoring of ground water level, flow, or quality, unless there is a unique, overriding, site-specific, impact-related reason to require monitoring;

(d) the nature, extent, concentration, and location of any residual contamination is defined and will not expand or increase;

(e) the release does not pose an unacceptable present or future risk to human health, safety, or ecological receptors;

(f) there be a schedule for review of any institutional controls;

(g) a statement that the department may require further documentation of site conditions to determine whether the requirements in (4) are met if the owner, operator, or department proposes to recategorize the release as resolved; and

(h) a statement that the department reserves the right to conduct or to require further investigation or corrective action if a new release occurs or if the department receives new or different information related to the release.

(12) Institutional controls, engineering controls, physical conditions, and notices placed on deeds, required to categorize a release as resolved with a petroleum mixing zone under (10), may be removed when the department determines that residual petroleum contamination in ground water exceeding a parameter listed in (10)(f) is no longer present or when the release is categorized as resolved in accordance with (4). (History: 75-11-319, 75-11-505, MCA; IMP, 75-11-309, 75-11-505, MCA; NEW, 2005 MAR p. 87, Eff. 1/14/05; AMD, 2007 MAR p. 2124, Eff. 12/21/07; AMD, 2010 MAR p. 1502, Eff. 6/25/10; AMD, 2011 MAR p. 2279, Eff. 10/28/11; AMD, 2014 MAR p. 2774, Eff. 11/7/14; AMD, 2016 MAR p. 1694, Eff. 9/24/16.)

- 17.56.608 ADOPTION BY REFERENCE (1) For purposes of this subchapter, the department adopts and incorporates by reference:
- (a) Department Circular DEQ-7, "Montana Numeric Water Quality Standards" (October 2012 edition);
 - (b) Drinking Water Maximum Contaminant Levels published at 40 CFR Part 141 (2009);
 - (c) Montana Tier 1 Risk-Based Corrective Action Guidance for Petroleum Releases (RBCA) (September 2009); and
 - (d) U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response Directive 9200.4-17P, "Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites" (April 1999).
- (2) All references in this subchapter to the documents incorporated by reference in this rule are to the edition specified in this rule.
- (3) Copies of the documents incorporated by reference in this rule may be obtained from the Department of Environmental Quality, Remediation Division, P.O. Box 200901, Helena, MT 59620-0901. (History: 75-11-319, 75-11-505, MCA; IMP, 75-11-309, 75-11-505, MCA; NEW, 2005 MAR p. 87, Eff. 1/14/05; AMD, 2007 MAR p. 2124, Eff. 12/21/07; AMD, 2008 MAR p. 946, Eff. 5/9/08; AMD, 2010 MAR p. 1502, Eff. 6/25/10; AMD, 2010 MAR p. 1796, Eff. 8/13/10; AMD, 2012 MAR p. 2060, Eff. 10/12/12.)

