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Coastal waters means the Atlantic Ocean and all contiguous saline bays, inlets and harbors within the jurisdiction of the Commonwealth including areas where fresh and salt waters mix and tidal effects are evident or any partially enclosed coastal body of water where the tide meets the current of a stream or river.

Commissioner means the Commissioner of the Department of Environmental Protection.

Community means any city or town of the Commonwealth.

Completion Statement means the LSP Opinion, including, but not limited to, applicable scopes of work, plans and reports, required by:

- (a) 310 CMR 40.0427 upon completion of an Immediate Response Action;
- (b) 310 CMR 40.0446 upon completion of a Release Abatement Measure;
- (c) 310 CMR 40.0466 upon completion of a Utility-related Abatement Measure;
- (d) 310 CMR 40.0630 upon completion of response actions at a Waiver Site;
- (e) 310 CMR 40.1140 upon completion of response actions required by an Audit Follow-up Plan;
- (f) 310 CMR 40.0484 upon completion of Phase I;
- (g) 310 CMR 40.0836 upon completion of Phase II;
- (h) 310 CMR 40.0862 upon completion of Phase III;
- (i) 310 CMR 40.0879 upon completion of Phase IV;
- (j) 310 CMR 40.0893 upon completion of Phase V; and
- (k) any other permit, approval or order issued by the Department.

Compliance Assistance means any service rendered by the Department to assist any person performing a response action to confirm, demonstrate or achieve compliance with M.G.L. c. 21E, 310 CMR 40.0000 and other laws, regulations, orders, permits and approvals applicable to such response actions.

Comprehensive Remedial Action means any remedial action performed in accordance with 310 CMR 40.0800.

Comprehensive Response Action means any response action performed in accordance with 310 CMR 40.0800.

Compressed gas means any material or mixture that is in a container and that, while in the container, has an absolute pressure exceeding 40 pounds per square inch at 70° F or, regardless of the pressure at 70° F, has an absolute pressure exceeding 104 pounds per square inch at 130° F.

Condition of Substantial Release Migration and SRM each mean a condition at a disposal site that includes any of the following:

- (a) releases that have resulted in the discharge of separate-phase oil and/or hazardous material to surface waters, subsurface structures, or underground utilities or conduits;
- (b) releases to the ground surface or to the vadose zone that, if not promptly removed or contained, are likely to significantly impact the underlying groundwater, or significantly exacerbate an existing condition of groundwater pollution;
- (c) releases to the groundwater that have migrated or are expected to migrate more than 200 feet per year;
- (d) releases to the groundwater that have been or are within one year likely to be detected in a public or private water supply well;
- (e) releases to the groundwater that have been or are within one year likely to be detected in a surface water body, wetland, or public water supply reservoir; or
- (f) releases to the groundwater that have resulted or are within one year likely to result in the discharge of vapors into school buildings or occupied residential dwellings.

Conditions means those requirements set forth in a written determination issued by the Department for the purpose of permitting, regulating or prohibiting any activity pursuant to M.G.L. c. 21E and/or 310 CMR 40.0000.

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Construction Plans and Specifications means any document that is prepared in accordance with 310 CMR 40.0870.

Consultant-of-Record means each consultant, other than a Licensed Site Professional, who provides professional services with respect to a specific site, unless and until such person notifies the Department in writing that he or she is no longer engaged or employed to provide such services with respect to such site.

Contain and containment each means actions taken in response to a release or threat of release of oil or hazardous material to prevent or minimize such release so that it does not migrate or otherwise cause or threaten substantial danger to present or future health, safety, public welfare or the environment. The term shall also include security measures, including, without limitation, the building of fences for the purpose of limiting and restricting access to a site or vessel where there has been a release or there is a threat of a release of oil or hazardous material.

Containerized Waste means discarded oil and/or hazardous material at a site in drums, tanks, engineered impoundments, or other fabricated containers, including, without limitation,

- (a) discarded oil and/or hazardous material that was generated at a site as a result of manufacturing industrial, commercial, or other process-related activities, and
- (b) discarded oil and/or hazardous material discovered, managed, generated, or accumulated as part of a response action.

Contaminated Debris - means any debris that contains oil and/or hazardous material associated with a release for which notification is required by 310 CMR 40.0300 and 40.1600.

Contaminated Groundwater - means groundwater containing oil and/or hazardous material at concentrations equal to or greater than a release notification threshold established by 310 CMR 40.0300 and 40.1600.

Contaminated Media - means Contaminated Groundwater, Contaminated Sediment, Contaminated Soil, and/or Contaminated Surface Water.

Contaminated Sediments - means sediments containing oil and/or hazardous material associated with a release for which notification is required by 310 CMR 40.0300 and 40.1600.

Contaminated Soil - means soil containing oil and/or hazardous material at concentrations equal to or greater than a release notification threshold established by 310 CMR 40.0300 and 40.1600.

Contaminated Surface Water - means surface water containing oil and/or hazardous material associated with a release for which notification is required under 310 CMR 40.0300 and 40.1600.

Critical Exposure Pathways mean those routes by which oil and/or hazardous material(s) released at a disposal site are transported, or are likely to be transported, to human receptors via:

- (a) vapor-phase emissions of measurable concentrations of oil and/or hazardous materials into the living or working space of a pre-school, daycare, school or occupied residential dwelling; or
- (b) ingestion, dermal absorption or inhalation of measurable concentrations of oil and/or hazardous materials from drinking water supply wells located at and servicing a pre-school, daycare, school or occupied residential dwelling.

Cumulative Receptor Cancer Risk means the sum of the estimated excess lifetime cancer risks associated with exposure to all oil and/or hazardous material at or from a disposal site at all exposure points for a given receptor.

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(a) Discrete areas where the average concentration within the area is greater than ten but less than one hundred times the average concentration in the immediate surrounding area is a Hot Spot unless there is no evidence that the discrete area would be associated with greater exposure potential than the surrounding area. In all cases, a discrete area where the concentration of an oil or hazardous material is greater than one hundred times the concentration in the surrounding area shall be considered a Hot Spot. In no case shall concentrations of oil or hazardous material equal to or less than an applicable Method 1 standard be considered indicative of a Hot Spot.

(b) Any discrete area where the average thickness of NAPL is greater than ten times the average thickness in the surrounding area is a Hot Spot.

Hourly Rate of Compensation and Hourly Rate each means the total compensation per hour provided to an employee or contractor of the Department. With respect to employees of the Department, it is calculated by dividing the weekly pay rate of an employee by the authorized number of weekly hours of the employee, excluding over-time hours, and multiplying the resulting figure by a factor which reflects the average cost of paid leave, health insurance and pension benefits. With respect to contractors employed by the Department, it is the hourly rate for the employee established by the contract between the Department and the contractor or the employer of the contractor.

Human Receptor means a person who is likely to be affected by a site, as further described in 310 CMR 40.0900.

Immediate Response Action and IRA each means any response action performed in accordance with 310 CMR 40.0410.

Imminent Hazard means a hazard which would pose a significant risk of harm to health, safety, public welfare or the environment if it were present for even a short period of time, as further described in 310 CMR 40.0950.

Imminent Hazard Evaluation means an evaluation performed in accordance with 310 CMR 40.0951 through 310 CMR 40.0955.

Indirect Rate means a rate which reflects the average cost per hour of services provided by Department employees, and expenses incurred by the Department, in support of Direct Hours. The Indirect Rate includes, but is not limited to, time spent by Department employees performing management, administrative, clerical, training, fiscal management, information management, laboratory certification, quality assurance and quality control duties, and non-labor overhead expenses, including office space and equipment rentals, office supplies, telephone bills, field and laboratory equipment, training expenses, utility service, maintenance and repairs, printing and travel, medicare, unemployment insurance and workers' compensation payments.

Influent means any flow of Remedial Wastewater or groundwater into treatment works.

Informal conference means a conference not subject to those provisions of M.G.L. c. 30A, § 10, governing adjudicatory proceedings.

Initial Site Investigation Activities means any activity performed in accordance with 310 CMR 40.0405(1).

Innovative technology means technology which is state-of-the-art and/or experimental.

Institution means any publicly or privately owned hospital, health care facility, orphanage, nursing home, convalescent home, educational facility, or correctional facility, where such facility in whole or in part provides overnight housing.

Interim Deadline means a deadline established by the Department pursuant to M.G.L. c. 21E, § 3A(j), and 310 CMR 40.0167, other than a deadline that is either expressly set forth in 310 CMR 40.0000 or determined by reference to a specific provision in 310 CMR 40.0000.

40.0406: Possible Outcomes of Preliminary Response Actions

(1) Within the one year time period specified in 310 CMR 40.0404(3), one of the following actions shall be taken by RPs, and may be taken by PRPs or Other Persons:

- (a) a "Class A" Response Action Outcome Statement shall be submitted to the Department, as described in 310 CMR 40.1000, indicating that remedial actions taken at the site have resulted in a Permanent Solution;
- (b) a "Class B" Response Action Outcome Statement shall be submitted to the Department, as described in 310 CMR 40.1000, indicating that remedial actions are not necessary because a condition of No Significant Risk already exists at the site; or
- (c) a Phase I Report and Tier Classification Submittal shall be submitted to the Department, in accordance with the provisions of 310 CMR 40.0500, along with a Tier I Permit application, if necessary, and as set forth in 310 CMR 40.0700, indicating that a Comprehensive Response Action will be undertaken at the site.

(2) Response Action Outcome Statements submitted to the Department at the conclusion of Preliminary Response Actions, and prior to Tier Classification, shall be accompanied by the Response Action Outcome fee specified in 310 CMR 4.00, unless the Response Action Outcome Statement is received by the Department within 120 days following the earliest date computed pursuant to 310 CMR 40.0404(3).

40.0410: Immediate Response Actions

310 CMR 40.0411 through 40.0429, cited collectively as 310 CMR 40.0410, set forth requirements and procedures for conducting Immediate Response Actions.

40.0411: General Provisions for Immediate Response Actions

(1) Immediate Response Actions shall assess release, threat of release and/or site conditions and, where appropriate, contain, isolate, remove or secure a release or threat of release of oil and/or hazardous material in order to:

- (a) abate, prevent or eliminate an Imminent Hazard to health, safety, public welfare or the environment; and/or
- (b) respond to other time-critical release, threat of release and/or site conditions.

(2) Any person who performs an Immediate Response Action shall do so in accordance with all applicable requirements and specifications prescribed in 310 CMR 40.0000. Except when specifically exempted by the Department due to the Department's level of involvement in the oversight of the Immediate Response Action, RPs, PRPs and Other Persons conducting Immediate Response Actions shall engage or employ the services of a Licensed Site Professional.

(3) The Department may make a determination that an Immediate Response Action involving assessment, containment and/or removal actions is needed at any site, consistent with the provisions of 310 CMR 40.0412. In such cases, the Department shall inform the RP or PRP of the need for, and scope of, response actions. When informing the RP or PRP would unacceptably delay the conduct of the Immediate Response Action, or when the RP or PRP is unable or unwilling to conduct the required actions, or otherwise fails to act in a timely manner, the Department may undertake the Immediate Response Action.

(4) Immediate Response Actions shall not, to the extent practicable, prevent or impede the implementation of future response actions.

(5) Immediate Response Actions shall be conducted in compliance with all applicable local, state and federal permitting and approval requirements.

(6) Health and safety procedures consistent with the provisions of 310 CMR 40.0018 shall be implemented at sites where an Immediate Response Action is being conducted.

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(7) RPs, PRPs and Other Persons undertaking response actions under the provisions of 310 CMR 40.0000 shall continually assess and evaluate release and site conditions in order to determine if an Immediate Response Action is required.

40.0412: Sites Where an Immediate Response Action is Required

Immediate Response Actions shall be conducted at the following sites:

- (1) sites or vessels where a release or threat of release of oil and/or hazardous material has occurred which requires notification to the Department under the "Two Hour" notification provisions of 310 CMR 40.0311 or 40.0312;
- (2) sites where a release or threat of release of oil and/or hazardous material has occurred which requires notification to the Department under the "72 Hour" notification provisions of 310 CMR 40.0313 or 40.0314;
- (3) disposal sites where a condition of Substantial Release Migration has been identified; and
- (4) any other site or vessel where the Department determines that immediate or accelerated response actions are necessary to prevent, eliminate, or minimize damage to health, safety, public welfare or the environment.

40.0414: Scope and Types of Immediate Response Actions

(1) At a minimum, Immediate Response Actions shall involve the assessment of the release or threat of release and/or site conditions described in 310 CMR 40.0412. The nature and extent of assessment actions taken as an Immediate Response Action shall be commensurate with the type and amount of oil and/or hazardous material released or threatening to be released, site complexity, and the sensitivity of site and surrounding human and environmental receptors, and shall be adequate and sufficient for determining:

- (a) the degree of hazard posed by the release, threat of release and/or site conditions;
- (b) whether remedial actions are required at the site prior to the completion of a Phase IV Remedy Implementation Plan, as described in 310 CMR 40.0870; and
- (c) where appropriate, the nature, extent, and timing of any required removal or containment actions.

(2) Immediate Response Actions shall be presumed to require the initiation of one or more containment or removal actions. Except as provided in 310 CMR 40.0414(3) through 310 CMR 40.0414(5), the presumption for containment and/or removal actions may be rebutted, however, by the RP, PRP or Other Person conducting response actions, based upon a showing by a preponderance of the evidence that:

- (a) the release, threat of release and/or site conditions do not present an Imminent Hazard, either at the present time or for the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions; and
- (b) the unmitigated migration of oil and/or hazardous material at the site, at present and for the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions, is not likely to:
 1. substantially increase the extent, area, or magnitude of environmental contamination;
 2. substantially increase the degree or complexity of future remedial actions;
 3. substantially increase cleanup costs; or
 4. otherwise result in a substantial hazard to health, safety, public welfare or the environment.

(3) Immediate Response Actions shall be presumed to require the elimination and/or mitigation of Critical Exposure Pathways, which are defined in 310 CMR 40.0006. This presumption may be rebutted, however, by the RP, PRP or Other Person conducting response actions, based upon a showing by a preponderance of the evidence that:

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- (a) the Critical Exposure Pathway(s) does not present an Imminent Hazard, either at present or for the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions;
- (b) it is not feasible to eliminate the Critical Exposure Pathway(s); and
- (c) in cases where it is not feasible to eliminate the Critical Exposure Pathway(s), it is not feasible to mitigate the Critical Exposure Pathway(s).

(4) Immediate Response Actions shall be presumed to require the prevention and/or mitigation of Critical Exposure Pathways, which are defined in 310 CMR 40.0006. This presumption may be rebutted, however, by the RP, PRP or Other Person conducting response actions, based upon a showing by a preponderance of the evidence, that:

- (a) the Critical Exposure Pathway(s) does not present an Imminent Hazard, either at present or for the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions;
- (b) it is not feasible to prevent the Critical Exposure Pathway(s); and
- (c) in cases where prevention is not feasible, it is not feasible to mitigate the Critical Exposure Pathway(s).

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(5) Immediate Response Actions shall be presumed to require the prevention of impact(s) to public water supplies at sites where such impact is likely to occur within the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions. This presumption may be rebutted, however, by the RP, PRP or Other Person conducting response actions, based upon a showing by a preponderance of the evidence that:

- (a) it is unlikely that the site will present impact(s) to the public water supply, for the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions;
 - (b) it is not feasible to prevent the impact(s) to the public water supply; and
 - (c) in cases where prevention is not feasible, it is not feasible to mitigate the impact(s) to the public water supply.
- (6) Immediate Response Actions may include:
- (a) preparation of technical reports or memoranda documenting why accelerated removal or containment actions are or are not required;
 - (b) an assessment of whether an Imminent Hazard to health, safety, public welfare or the environment exists at the site;
 - (c) collection and assessment of soil, sediment, surface water, groundwater, soil gas, or atmospheric or indoor air samples;
 - (d) assessment of the validity of underground storage tank testing results;
 - (e) assessment of the need to take timely actions to prevent releases from occurring at a site where a threat of release has been identified;
 - (f) installation of fences, warning signs, including, where appropriate, multilingual and symbolic signs, and/or the institution of other security or site control measures;
 - (g) installation of drainage controls;
 - (h) construction or stabilization of berms, dikes or impoundments;
 - (i) temporary covering or capping of contaminated soils or sludges;
 - (j) installation of waste or product recovery and groundwater treatment systems or soil vapor extraction systems;
 - (k) removal of contaminated soils;
 - (l) removal of the contents of, or removal of, drums, barrels, tanks or other bulk containers which contain or may contain oil and/or hazardous material;
 - (m) temporary evacuation or relocation of residents from the site and/or surrounding area;
 - (n) provision of temporary alternative water supplies;
 - (o) installation of a sub-slab soil gas depressurization system beneath an occupied structure; or
 - (p) any other assessment, containment or removal action consistent with the purpose and scope of an Immediate Response Action or otherwise deemed necessary by the Department.

(7) A cap or engineered barrier that is constructed in accordance with the performance standards contained in 310 CMR 40.0996(4) as an Immediate Response Action will not be considered part of a Permanent Solution at a disposal site, unless and until a Phase III is performed pursuant to the provisions of 310 CMR 40.0850 demonstrating the lack of a feasible alternative.

40.0420: Requirements, Approvals, and Time Lines For Conducting Immediate Response Actions

(1) Immediate Response Actions shall be taken by RPs, and may be taken by PRPs or Other Persons, in response to all releases and threats of release described in 310 CMR 40.0412.

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(2) Immediate Response Actions shall be conducted in compliance with all applicable provisions and time lines specified in 310 CMR 40.0400, and in compliance with any response action requirements deemed necessary by the Department and/or specified by the Department in its approval of Immediate Response Action Plans.

(3) RPs, PRPs and Other Persons shall communicate to the Department their intentions to conduct Immediate Response Actions which are required pursuant to 310 CMR 40.0412. Such communication shall be provided orally to the Department on the earliest of the following dates:

- (a) at the time an RP, PRP, or Other Person is providing oral notification to the Department of a "2 Hour" or "72 Hour" release or threat of release described in 310 CMR 40.0311 through 40.0314;
- (b) at the time a person is orally informed by the Department that they are an RP or PRP for a site at which an Immediate Response Action is required pursuant to 310 CMR 40.0412;
- (c) within 72 hours of the time an RP, PRP, or Other Person obtains knowledge of one or more of the conditions of Substantial Release Migration specified in 310 CMR 40.0413;
- (d) within 72 hours of the time a person receives a Notice of Responsibility from the Department indicating that they are an RP or PRP for a site at which an Immediate Response Action is required pursuant to 310 CMR 40.0412; or
- (e) within an Interim Deadline specified by the Department pursuant to 310 CMR 40.0167.

(4) When orally communicating to the Department their intentions to conduct an Immediate Response Action, RPs, PRPs or Other Persons shall inform the Department:

- (a) whether or not the RP, PRP or Other Person intends to conduct an Immediate Response Action in the time period and manner warranted by the release, threat of release and/or site conditions, in compliance with all applicable provisions of 310 CMR 40.0400, and in compliance with any specific response action requirements which have been communicated to them by the Department;
- (b) whether the Immediate Response Action will involve the implementation of remedial actions; and
- (c) if remedial actions are proposed, details on the nature and extent of such actions.

(5) Upon review and consideration of the oral communication provided by the RP, PRP or Other Person, DEP shall orally approve, deny, or conditionally approve:

- (a) the details of remedial actions proposed at the time of such communication; in cases where the Immediate Response Action will involve removal or containment actions; or
- (b) a recommendation that remedial actions are not required at the time of such communication, in cases where the Immediate Response Action will involve assessment actions only.

(6) Except as provided in 310 CMR 40.0421, approval from the Department shall be required prior to the implementation of an Immediate Response Action, or significant modification of a previously approved Immediate Response Action that involves remedial actions. Such approval may be granted orally by the Department in situations where there has been a sudden release of oil and/or hazardous material, where there exists a threat of release of oil and/or hazardous material, and in other cases where written approval would delay the timely implementation of an Immediate Response Action. Where time permits, and in situations where the Department declines to provide oral approval, RPs, PRPs, and Other Persons shall seek approval to conduct Immediate Response Actions by submittal to the Department of an Immediate Response Action Plan pursuant to the provisions of 310 CMR 40.0420(7) and 40.0424.

(7) Except as provided at 310 CMR 40.0420(8), and without regard to whether oral approval was given by the Department to conduct or initiate Immediate Response Actions, RPs and other persons conducting response actions shall submit to the Department an Immediate Response Action Plan, within the earliest of the following time periods:

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- (a) within 60 days of providing oral notification to the Department of those "2 Hour" or "72 Hour" releases or threats of release specified in 310 CMR 40.0311 through 40.0314;
- (b) within 60 days of orally communicating to the Department knowledge of a condition of Substantial Release Migration at a disposal site;
- (c) within 60 days of the date that the Department issues a Notice of Responsibility indicating that they are an RP or PRP for a site at which an Immediate Response Action is required pursuant to 310 CMR 40.0412; or
- (d) within a time period established by the Department as an Interim Deadline in accordance with 310 CMR 40.0167.

(8) Submission to the Department of an Immediate Response Action Plan is not required if an Immediate Response Action Completion Report, as described in 310 CMR 40.0427, or a Response Action Outcome Statement, as described in 310 CMR 40.1000, is received by the Department by the due date of the Immediate Response Action Plan.

(9) All written Immediate Response Action Plans submitted to the Department shall be approved, conditionally approved, or denied by the Department in writing within 21 days of receipt. Except at Tier IA disposal sites, approval of such plan shall be presumed if the Department does not issue a written approval or denial of said plan within 21 days of receipt. Immediate Response Actions that had previously been orally approved by the Department shall continue during this review period.

(10) In approving an Immediate Response Action Plan, the Department may specify conditions of approval, including, but not limited to:

- (a) the role of the Department in overseeing or conducting various elements of the Immediate Response Action;
- (b) Interim Deadlines for one or more elements of the Immediate Response Action; or
- (c) submittal requirements for one or more elements of the Immediate Response Action.

(11) RPs, PRPs and Other Persons conducting Immediate Response Actions shall do so in conformance with all conditions and deadlines of any oral or written approval granted by the Department pursuant to 310 CMR 40.0420.

(12) Approval from the Department shall not be required to conduct or initiate Immediate Response Actions that consist solely of the construction of a fence and/or the posting of signs, provided the Department is informed of such actions in the next required response action submittal.

40.0421: Immediate Response Actions That Do Not Require Prior Approval From the Department

(1) Except where specifically prohibited in writing by the Department, assessment activities may be conducted at any site without prior notice to or approval from the Department to conduct such activities.

(2) Prior notice to and approval from the Department shall not be required to conduct or initiate remedial actions in those cases where the delay involved in notifying and obtaining approval from the Department would substantially exacerbate release or site conditions or endanger health, safety, public welfare or the environment. Immediate Response Actions conducted or initiated under such circumstances may include, without limitation, containment and/or removal actions that are undertaken:

- (a) immediately after a sudden release of oil and/or hazardous material;
- (b) immediately after the discovery of a release to prevent, abate or eliminate an Imminent Hazard; or
- (c) immediately after the discovery of a threat of release, in order to prevent a release from occurring.

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Persons conducting or initiating remedial actions under the provisions of 310 CMR 40.0421(2) shall notify the Department of those remedial actions undertaken and needed to be taken at the site as soon as possible, and not later than 24 hours after commencement thereof.

(3) Prior notice to and approval from the Department shall not be required to excavate and stockpile up to 100 cubic yards (cumulative for the disposal site of concern) of soils contaminated by a release of oil or waste oil at concentrations or quantities that meet one or more of the sets of criteria specified in 310 CMR 40.0313, and resulting from the closure of an Underground Storage Tank, provided:

- (a) site conditions do not pose an Imminent Hazard to human health, safety, public welfare, or the environment;
- (b) contaminated soils are managed in conformance with the provisions of 310 CMR 40.0030;
- (c) notification is provided to the Department within the time frames required by 310 CMR 40.0332, specifying the nature and extent of soil removal activities; and
- (e) appropriate Immediate Response Actions are initiated subsequent to notification, in conformance with all provisions of 310 CMR 40.0420.

40.0424: Immediate Response Action Plans

- (1) An Immediate Response Action Plan shall contain the following:
 - (a) the name, address, telephone number and relationship to the site of the person assuming responsibility for conducting the Immediate Response Action;
 - (b) a description of the release or threat of release, site conditions and surrounding receptors;

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- (c) a description of any Immediate Response Actions undertaken to date at the site;
 - (d) the reason why an Immediate Response Action is required;
 - (e) the objective(s), specific plan(s) and proposed schedule for the Immediate Response Action, including, as appropriate, plans and/or sketches of the site and any proposed investigative and/or remedial installations;
 - (f) a statement as to whether Remediation Waste will be excavated, collected, stored, treated or re-used at the site;
 - (g) where appropriate, a proposed environmental monitoring plan, for implementation during and/or after the Immediate Response Action;
 - (h) a listing of federal, state or local permits that will likely be needed to conduct the Immediate Response Action;
 - (i) except as exempted pursuant to 310 CMR 40.0411(2), the seal and signature of the Licensed Site Professional who prepared the Immediate Response Action Plan; and
 - (j) such other information as the Department may deem appropriate and necessary, based on site specific conditions, in order to review and evaluate the Immediate Response Action Plan in question.
- (2) An Immediate Response Action Plan shall be updated and modified, if necessary, based upon the acquisition and evaluation of significant new information and data on release, threat of release and/or site conditions. Each significant modification of an Immediate Response Action Plan shall be resubmitted to the Department for review and approval.
- (3) Immediate Response Action Plans shall be submitted to the Department using a transmittal form established by the Department for such purposes.

40.0425: Status Reports on Immediate Response Actions

- (1) Unless otherwise specified in writing by the Department, a person conducting Immediate Response Actions shall submit a written Status Report to the Department 120 days after the date on which that person first communicated to the Department his or her intention to conduct that Immediate Response Action.
- (2) Following submission of the first such Status Report, additional Status Reports shall be submitted to the Department every six months thereafter, until such time as an Immediate Response Action Completion Report is submitted to the Department, as described in 310 CMR 40.0427.
- (3) Immediate Response Action Status Reports shall contain, at a minimum, the following information:
 - (a) the status of assessment and/or remedial actions;
 - (b) any significant new site information or data;
 - (c) details of and/or plans for the management of Remediation Waste, Remedial Wastewater and/or Remedial Additives;
 - (d) monitoring data related to the operation of remedial systems, including treatment works discharging Remedial Wastewater, where applicable;
 - (e) any other information required by the Department in its approval of the Immediate Response Action Plan; and
 - (f) an LSP Opinion as to whether the Immediate Response Action is being conducted in conformance with the Immediate Response Action Plan and any conditions of approval established by the Department.
- (4) Status Reports shall not be required for sites where an Immediate Response Action Completion Report or a Response Action Outcome Statement is received by the Department prior to the date on which the first Status Report is required pursuant to 310 CMR 40.0425(1).
- (5) Immediate Response Action Status Reports shall be submitted to the Department using a transmittal form established by the Department for such purposes.

40.0426: Imminent Hazard Evaluations

(1) An Imminent Hazard Evaluation shall be performed as part of an Immediate Response Action at sites where a release or threat of release could pose an Imminent Hazard to human health, safety, public welfare, or the environment, as described in 310 CMR 40.0321(2), and may be performed at sites where a release or threat of release is deemed to pose an Imminent Hazard, as described in 310 CMR 40.0321(1).

(2) Unless otherwise specified in writing by the Department, RPs, PRPs and Other Persons conducting Immediate Response Actions at a site where a release or threat of release could pose an Imminent Hazard to human health, as described in 310 CMR 40.0321(2), shall initiate an Imminent Hazard Evaluation within 14 days of obtaining knowledge of such a condition, and shall submit to the Department, within 60 days of obtaining knowledge of such a condition:

- (a) an LSP Opinion as to whether an Imminent Hazard to human health actually exists at the site, as described in 310 CMR 40.0950; or
- (b) when such an Opinion cannot yet be made, an LSP Opinion:
 - 1. describing the investigative efforts that have been made and remain to be taken in order to determine whether an Imminent Hazard to human health actually exists at the site, as well as a timetable for the remaining activities; or
 - 2. proposing a plan to undertake removal and/or containment actions at the site to address those conditions that could pose an Imminent Hazard to human health.

(3) Unless otherwise specified in writing by the Department, RPs, PRPs, or Other Persons conducting response actions at sites where a release or threat of release could pose an Imminent Hazard to safety, public welfare, or the environment shall initiate an Imminent Hazard Evaluation within 14 days of obtaining knowledge of such a condition, and shall submit to the Department, within 60 days of obtaining knowledge of such a condition:

- (a) an LSP Opinion as to whether an Imminent Hazard to safety, public welfare, or the environment actually exists at the site; or
- (b) when such an Opinion cannot yet be made, an LSP Opinion:
 - 1. describing the investigative efforts that have been made and remain to be taken in order to determine whether an Imminent Hazard to safety, public welfare, or the environment actually exists at the site, as well as a timetable for the remaining activities; or
 - 2. proposing a plan to undertake removal and/or containment actions at the site to address those conditions that could pose an Imminent Hazard to safety, public welfare, or the environment.

(4) RPs, PRPs and Other Persons conducting Immediate Response Actions at a site where a release or threat of release poses or could pose an Imminent Hazard, as specified in 310 CMR 40.0321 and 310 CMR 40.0950, shall keep the Department informed as to the progress being made in addressing and/or abating the Imminent Hazard, in report submittals made as part of the Immediate Response Action Status Reports, or in accordance with a reporting frequency and procedure established by the Department as part of its approval of the Immediate Response Action Plan.

(5) Imminent Hazard Evaluations shall be submitted to the Department using a transmittal form established by the Department for such purposes.

(6) Active remedial systems and/or continuing response actions required and/or approved by the Department to address an Imminent Hazard condition at a site shall not be terminated by the RP, PRP, or Other Person conducting Immediate Response Actions until such time as response objectives and/or approval conditions have been met, and until approval to do so has been obtained from the Department. All requests to terminate such actions shall be submitted to the Department using a transmittal form established by the Department for such purposes, and shall contain data, documentation, and technical information sufficient to justify cessation of such actions. Approval to terminate such actions shall be presumed if the Department does not issue a written approval or denial of such a request within 21 days of receipt of the same.

40.0427: Immediate Response Action Completion Reports

(1) An Immediate Response Action shall be considered complete when the release, threat of release and/or site conditions which give rise to the need for that Immediate Response Action, as described in 310 CMR 40.0412, have been assessed and, where necessary, remediated in a manner and to a degree that will ensure, at a minimum:

- (a) the accomplishment of any necessary stabilization of site conditions;
- (b) the elimination or control of any Imminent Hazards to health, safety, public welfare and the environment, without the continued operation and maintenance of active remedial systems, pending the completion of any necessary Comprehensive Response Actions; and
- (c) the elimination, prevention or mitigation of Critical Exposure Pathway(s) without the continued operation and maintenance of active remedial systems, pending the completion of a risk assessment pursuant to 310 CMR 40.0900 and a feasibility study pursuant to 310 CMR 40.0860.

(2) Except as specified in 310 CMR 40.0427(3), an Immediate Response Action Completion Report shall be submitted to the Department within 60 days of completion of all assessment, containment and/or removal actions conducted as part of the Immediate Response Action.

(3) An Immediate Response Action Completion Report shall not be required for sites where a Response Action Outcome Statement, as described in 310 CMR 40.1000, is submitted to the Department by an RP, PRP, or Other Person within 120 days of first informing the Department of the need to conduct an Immediate Response Action at the site, as specified in 310 CMR 40.0420(3).

(4) Immediate Response Action Completion Reports shall contain, at a minimum, the following:

- (a) a description of the release or threat of release, site conditions and surrounding receptors;
- (b) a description of the work completed, including work undertaken in response to any conditions of approval imposed by the Department, and any work undertaken at the site that was not included in the scope of the Immediate Response Action Plan, where submitted;
- (c) all investigatory and monitoring data obtained during the implementation of the Immediate Response Action;
- (d) a succinct statement on the findings and conclusions of the Immediate Response Action;
- (e) details and documentation on the management of any Remediation Waste, Remedial Wastewater and/or Remedial Additives managed at the site as part of the Immediate Response Action;
- (f) a description of any ongoing activities related to the Immediate Response Action that will be conducted at the site, including monitoring activities, security measures and the maintenance of fences, caps and other passive systems.

(5) Immediate Response Action Completion Reports shall be submitted to the Department appended to a Completion Statement form established by the Department for such purposes. The Completion Statement form shall contain:

- (a) except as exempted pursuant to 310 CMR 40.0411(2), an LSP Opinion on whether the Immediate Response Action was conducted in accordance with 310 CMR 40.0410, any approval conditions specified by the Department, and, where submitted, the Immediate Response Action Plan(s); and
- (b) the certification of the submittal required by 310 CMR 40.0009.

(6) Except as provided in 310 CMR 40.0427(7), an Immediate Response Action shall not be considered complete until all stockpiled/stored Remediation Waste generated as a result of the Immediate Response Action is removed from the site pursuant to the provisions of 310 CMR 40.0030.

(7) Remediation Waste may be stored, treated, managed, disposed, recycled or reused at a site following the submission to the Department of an Immediate Response Action Completion Report and Completion Statement only if:

- (a) such actions are conducted in conformance with the provisions of 310 CMR 40.0030; and

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(b) a Release Abatement Measure Plan pursuant to the provisions of 310 CMR 40.0440 or a Remedy Implementation Plan pursuant to the provisions of 310 CMR 40.0870 is submitted to the Department as an attachment to the Immediate Response Action Completion Statement.

(8) Immediate Response Action Completion Reports shall not require approval from the Department, but shall be subject to auditing by the Department, as described in 310 CMR 40.1100.

40.0428: Public Involvement

(1) Public Involvement Activities shall be conducted in accordance with 310 CMR 40.1400 through 40.1406. Public Involvement Activities relevant to Immediate Response Actions may include, without limitation, those activities set forth at 310 CMR 40.1403(3)(b), 40.1403(3)(c), 40.1403(3)(f), 40.1403(5) and 40.1403(9).

(2) If the disposal site where the Immediate Response Action is conducted is a Public Involvement Plan Site, a Public Involvement Plan that is consistent with 310 CMR 40.1405 shall be implemented by the RP, PRP or Other Person conducting response actions at that site.

40.0429: Possible Outcomes of an Immediate Response Action

One or more of the following actions shall be taken by an RP, PRP or Other Person following the completion of an Immediate Response Action:

(1) the filing of a "Class A" or "Class B" Response Action Outcome Statement, in accordance with the provisions of 310 CMR 40.1000;

(2) the initiation of a Release Abatement Measure, in accordance with the provisions of 310 CMR 40.0440; or

(3) the continuation of further Preliminary or Comprehensive Response Actions, in accordance with the provisions of 310 CMR 40.0400 or 40.0800.

40.0440: Release Abatement Measures

310 CMR 40.0441 through 40.0449, cited collectively as 310 CMR 40.0440, set forth requirements and procedures for conducting Release Abatement Measures.

40.0441: General Provisions for Release Abatement Measures

(1) Release Abatement Measures are intended to reduce risks at a disposal site and/or increase the cost effectiveness of response actions by allowing the implementation of certain accelerated remedial actions to stabilize, treat, control, minimize or eliminate releases until such time as a Response Action Outcome is achieved, as described in 310 CMR 40.1000, or until Comprehensive Remedial Actions can be implemented, as described in 310 CMR 40.0800.

(2) Release Abatement Measures shall be limited in scope and complexity, as described in 310 CMR 40.0442, in order to prevent adverse impacts to health, safety, public welfare or the environment that could result from the implementation of complicated or large-scale remedial actions at disposal sites where there has not been adequate assessment, evaluation, planning and/or public involvement.

1. If it is demonstrated that the current or foreseeable future human exposure to the oil and/or hazardous material would occur predominantly through contact with the groundwater or soil, then the MCP Method 1 Standards may be used to characterize the risk of harm to human health posed by the disposal site. Method 3 then would be used to characterize the risk of harm to public welfare and the environment posed by the contamination in all other affected media. Such an approach shall be considered to be a combined Method 1 and Method 3 Risk Characterization; or

2. Method 3 alone may be used to characterize risk at the disposal site.

(c) If Environmental Receptors have been identified for the disposal site as described in 310 CMR 40.0922, and if oil and/or hazardous material known to bioaccumulate are present within two feet of the ground surface, then Method 1 alone shall not be used to characterize the risk at the disposal site, and the following options are available:

1. The MCP Method 1 Standards may be used in combination with a Method 3 Stage I Environmental Screening to characterize the risk of harm to health, public welfare and the environment. Such an approach shall be considered to be a combined Method 1 and Method 3 Risk Characterization; or

2. Method 3 alone may be used to characterize risk at the disposal site.

(2) Method 2 allows the consideration of limited site-specific information to supplement the use of MCP Method 1 Standards for groundwater and soil. As a result, the limitations and options described for the use of Method 1 in 310 CMR 40.0942(1) are also applicable to the use of Method 2.

(3) Method 3 may be used at any disposal site to characterize the risk of harm to health, public welfare and the environment.

40.0950: Imminent Hazard Evaluations and Substantial Hazard Evaluations

40.0951: Purpose and Scope of Imminent Hazard Evaluations

(1) The site shall be evaluated to determine if an Imminent Hazard exists in accordance with 310 CMR 40.0000. The decision to conduct a quantitative Imminent Hazard Evaluation shall use the Response Action Performance Standard (RAPS) described in 310 CMR 40.0191, and consider the location and nature of the oil and/or hazardous material, the Human or Environmental Receptors which may be exposed, and appropriate guidance published by the Department.

(2) If the results of this assessment indicate that the conditions at the site pose an Imminent Hazard based upon the criteria described in 310 CMR 40.0955, the Department shall be notified in accordance with 310 CMR 40.0311(7). Subsequent assessments performed as part of an Immediate Response Action shall consider the weight of evidence indicating the potential for an Imminent Hazard when making the evaluations described in 310 CMR 40.0426.

40.0953: Exposures to be Considered in Imminent Hazard Evaluations

The focus of an Imminent Hazard Evaluation shall be on actual or likely exposures to Human and Environmental Receptors under current site conditions, considering the current use(s) of the disposal site and the surrounding environment, and considering an appropriate short period of time.

(1) The short period of time considered in the evaluation shall be five years unless site circumstances indicate that a shorter time period is appropriate. The specific time period shall be selected in consideration of the nature of the hazard under investigation and the projected time until a Comprehensive Response Action could be completed, in order to determine the need for an Immediate Response Action.

(2) For the evaluation of soil-related exposures, the levels of oil and/or hazardous material in the accessible surficial soil (as close to the ground surface as possible but in no case greater than 12 inches) shall be considered in the development of the Exposure Point Concentrations.

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- (3) For the evaluation of drinking water exposures, the levels of oil and/or hazardous material in the groundwater or surface water which serves as the source of the drinking water shall be considered in the development of the Exposure Point Concentrations.
- (4) Hot spots shall be the primary, but not exclusive, focus of an Imminent Hazard Evaluation, provided that they are located in areas of actual or likely human exposure under current site conditions.
- (5) If a small subset of oil and/or hazardous material are likely to dominate the risk estimates based upon their concentration and toxicity, then the Imminent Hazard Evaluation may be limited to those chemicals.
- (6) As indicated by the site conditions, the Imminent Hazard Evaluation shall consider acute, subchronic and/or chronic exposures to the oil and/or hazardous material. The Exposure Point Concentrations shall be developed to reflect the type of exposure being evaluated. The use of upper percentile or maximum concentrations may be appropriate for certain evaluations, and shall be considered as described at 310 CMR 40.0926.
- (7) The Imminent Hazard Evaluation shall be conducted in a manner which results in conservative estimates of potential exposures.
- (8) The documentation of the Imminent Hazard Evaluation shall clearly identify and explain the basis for exposure parameters chosen for the Risk Characterization.

40.0955: Imminent Hazard Risk Characterization and Outcome

Risk Characterizations for Imminent Hazard Evaluations shall be conducted separately for safety, human health, and the environment, depending on the type of condition that triggered the need for the evaluation, in accordance with the following methods:

- (1) The characterization of the risk of harm to safety shall be conducted as described in 310 CMR 40.0960. The conditions at the disposal site pose an Imminent Hazard based on safety concerns if a condition of no significant risk to safety has not been achieved at the disposal site under conditions which actually exist or are about to occur.
- (2) The characterization of the risk of harm to human health shall be conducted using Method 3, as described in 310 CMR 40.0993.
 - (a) The toxicity information used to characterize risk shall be consistent with the type and duration of exposure under evaluation, and shall be clearly identified and documented. Primary consideration shall be given to information developed by the U.S. Environmental Protection Agency for the purpose of conducting such risk assessments. Examples of such toxicity information include:
 - 1. Reference Doses and Reference Concentrations; and
 - 2. Carcinogenic Slope Factors and Unit Risk values.
 - (b) The conditions at the disposal site pose an Imminent Hazard based upon the potential for carcinogenic health effects if, for the oil and/or hazardous material evaluated and for each receptor, the estimated Excess Lifetime Cancer Risk is greater than a cancer risk limit which is an Excess Lifetime Cancer Risk equal to one-in-100,000.
 - (c) The conditions at the disposal site pose an Imminent Hazard based upon the potential for non-cancer health effects if, for the oil and/or hazardous material evaluated and for each receptor, the non-cancer risk calculated is greater than a non-cancer risk limit of a Hazard Index equal to ten.
 - (d) A release to the environment which produces readily apparent effects to human health poses an Imminent Hazard. A quantitative evaluation of such exposures is not required.
 - (e) The mathematical equations used to calculate the risk estimates shall be clearly presented and documented.

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(3) The risk of harm to the environment shall be characterized based on the data collected pursuant to the response action being performed and the site, receptor, and exposure information identified in 310 CMR 40.0995. The following conditions shall constitute an Imminent Hazard to the environment:

- (a) evidence of stressed biota attributable to the release at the disposal site, including, without limitation, fish kills or abiotic conditions; or
- (b) a release to the environment of oil or hazardous material which produces immediate or acute adverse impacts to freshwater or saltwater fish populations.

(4) The documentation of the Imminent Hazard Evaluation shall clearly state whether the conditions at the disposal site pose an Imminent Hazard based upon the criteria described in 310 CMR 40.0955(1) through (3).

40.0956: Substantial Hazard Evaluation

(1) The focus of a Substantial Hazard Evaluation shall be on possible exposures to Human and Environmental Receptors, considering the current use(s) of the disposal site and the surrounding environment and, where applicable, any Activity and Use Limitations for the site.

- (a) A condition of No Substantial Hazard to Health would exist if, for an appropriate Exposure Period, no Cumulative Receptor Cancer Risk and no Cumulative Receptor Non-cancer Risk is greater than the Cumulative Receptor Risk Limits specified at 310 CMR 40.0993(6).
- (b) The period of exposure to be considered shall be equal to or greater than the time from Notification to the date that the Substantial Hazard evaluation is conducted, plus five years.
- (c) A quantitative evaluation of human health risk is not required if there is no current exposure to oil and/or hazardous material at the disposal site.

(2) The focus of an Ecological Substantial Hazard Evaluation shall be on any environmental resource areas, such as wetlands, aquatic and terrestrial habitats, and fisheries, that exist at a site. A condition of No Substantial Hazard to the Environment would exist if steps have been taken to eliminate or mitigate any of the following conditions affecting an environmental resource at a site:

- (a) Evidence of stressed biota attributable to the release at the disposal site, including, without limitation, fish and wildlife kills or abiotic conditions;
- (b) The visible presence of oil, tar or other non-aqueous phase hazardous material in soil within three feet of the ground surface over an area equal to or greater than two acres; or over an area equal to or greater than 1000 square feet in sediment within one foot of the sediment surface;
- (c) Continuing discharge of contaminated groundwater to surface water where the levels of the oil or hazardous material attributable to the release already exceed Massachusetts Surface Water standards;
- (d) Continuing discharge of contaminated groundwater to surface water where surface water and/or sediment concentrations of Oil and/or Hazardous Material attributable to the release already pose a significant risk;
- (e) Migration of oil or hazardous material to additional environmental media or resource area where resultant exposures would have the potential to pose a significant risk of harm in the future; or
- (f) Ecological risk or harm such that recovery would be substantially more difficult or would require more time if conditions were to remain unremediated for even a short period of time.

(3) No Substantial Hazard assessment is required if a condition of No Significant Risk exists and the site is eligible for a Class A or Class B Response Action Outcome.