STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
93 STATE HOUSE STATION
AUGUSTA, MAINE 04333

PAUL R. LEPAGE
GOVERNOR

WALTER E. WHITCOMB
COMMISSIONER

June 14, 2016

Ms. Joelle Gore, Chief
Stewardship Division
Office of Coastal Management
SSMC4, Room 10622
1305 East West Highway
Silver Spring, Maryland 20910

RE: Routine Program Changes; Maine Coastal Program

Dear Joelle:

Enclosed is the State of Maine's request, submitted in accordance with 15 C.F.R. §923.84, for approval of specified provisions in public law enacted during the 127th Maine Legislature's Second Regular Session, and changes to certain regulations administered by the Maine Department of Environmental Protection, as routine program changes to the Maine Coastal Program.

Thank you for your attention to this matter.

Sincerely,

Kathleen Leyden
Director, Maine Coastal Program

KL/l
Enclosure

cc:/
Rebecca Newhall, OCM
Kerry Kehoe, OCM

KATHLEEN LEYDEN, DIRECTOR
MAINE COASTAL PROGRAM
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maine DEPARTMENT OF Agriculture Conservation & Forestry

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Request for Approval of Routine Program Changes to the Maine Coastal Program

Submitted to:

National Oceanic and Atmospheric Administration,
Office for Coastal Management
Washington, D.C.

Maine Department of Agriculture, Conservation and Forestry,
Bureau of Resource Information and Land Use Planning

Maine Coastal Program

June 2016

Routine Program Change Request

Maine Coastal Program

Submitted to:

National Oceanic and Atmospheric Administration,
Office for Coastal Management
Washington, D.C.

June 2016

Financial assistance for this document was provided by a grant to the Maine Coastal Program in the Maine Department of Agriculture, Conservation and Forestry from the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office for Coastal Management, under the Coastal Zone Management Act of 1972, as amended.

Maine Coastal Program
Maine Department of Agriculture, Conservation and Forestry
Bureau of Resource Information and Land Use Planning
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Augusta, ME 04333-0038

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www.maine.gov/dacf/mcp/index.htm

INTRODUCTION

In 1978, the National Oceanic and Atmospheric Administration ("NOAA") approved the Maine Coastal Program ("MCP"). The original program was based on eleven environmental laws, the MCP's core laws, which provided the Program's enforceable policies. The MCP's enforceable policies have evolved over time as the State of Maine ("State") has changed the framework of laws and agency rules that govern management of Maine's coastal resources and uses.

The Department of Agriculture, Conservation and Forestry's Bureau of Resource Information and Land Use Planning ("DACF"), which houses the Maine Coastal Program, periodically submits program changes to NOAA's Office for Coastal Management ("OCM") for its review and approval of their incorporation into the MCP as enforceable policies and tools to improve program administration and implementation.

This submission contains the following changes and additions to core law authorities enacted by the Second Regular Session of the 127th Maine Legislature: P.L. 2015 chapter: 423, sections 1-2. This recently enacted public law is available on-line at: http://legislature.maine.gov/ros/LawsOfMaine/#Law/127/R2/ACTPUB/498

In addition, this submission includes changes to the following rules administered by the Department of Environmental Protection ("DEP") which implement the Site Location of Development Act, one of the MCP's long-approved core law authorities: DEP rules chapter 373 (financial and technical capacity standard), as amended effective June 3, 2016; DEP rules chapter 375 (no adverse environmental effect standard), as amended effective June 3, 2016; and DEP rules chapter 380 (long-term construction projects), as amended effective June 3, 2016. This submission also includes minor changes to DEP rules Chapter 100 (definitions in air quality laws), as amended effective May 22, 2016; Chapter 501 (stormwater management compensation and mitigation fees), as amended effective May 22, 2016; and Chapter 691 (requirements for underground oil storage facilities), as amended effective April 3, 2016. These rules, as amended, may be viewed on-line at: http://www.maine.gov/sos/cec/rules/06/chaps06.htm

DACF has determined that the above-noted amendments and additions to the MCP's core law authorities are routine program changes and requests that OCM concur with this determination. DACF has provided notice of these proposed changes to the MCP in accordance with 15 C.F.R. §923.84 (b)(2). A copy of that notice is attached as Appendix A.

Appendix B provides the text of these public laws and DEP rules. Appendix C is a table which provides section-by-section explanation of these changes. Appendix D provides the text of repealed statutory provisions noted in that table.

Inclusion of each of these changes among the core laws that provide enforceable policies of the MCP is a routine program change as defined by 15 C.F.R. §923.80(d). None of these changes presents a significant issue regarding special management areas, coastal program boundaries, program authorities or organization, or coordination, public involvement, or the national interest, and thus each proposed change is a routine program change under the criteria of 15 C.F.R. §923.80(d).

Approval of these changes will facilitate administration of the MCP by updating the Program's core laws and thus promoting consistency between application of pertinent provisions in state environmental and land use laws as enforceable policies of the MCP and their application for licensing, permitting, and natural resources management under state law.

Many of the provisions of the public laws and rules proposed as routine program changes make minor, technical changes, or clarifications or incremental substantive changes to state statutes that provide coastal management-related policies. The following are descriptions of those that are comparatively substantive. These descriptions are meant to facilitate NOAA's review and supplement information in the table provided as Appendix C, which identifies and summarizes each proposed routine program change.

- **P.L. 2015 c. 423, §§ 1 and 2,** amending the Maine Endangered Species Act

P.L. 2015 c. 423 makes a number of changes to the Maine Endangered Species Act ("MESA") and related statutes that clarify and refine MESA's "incidental take" provisions. Like comparable provisions in the federal Endangered Species Act, as amended MESA's incidental take provisions authorize actions related to a lawful activity that, while posing little or no demonstrable risk to a listed species' recovery, would otherwise be subject to penalty under the law. As stated in the summary of L.D. 1636, which was enacted as P.L. 2015 c. 423, the law in pertinent part:

- "... authorizes the Commissioner of Inland Fisheries and Wildlife to create a widespread activity incidental take plan when the commissioner determines that the activity is widespread and conducted by a reasonably identifiable group of participants as long as:

  A. The activity poses a manageable risk of taking an endangered or threatened species;
  B. Any taking would be incidental to an otherwise lawful activity; and
  C. The taking will not impair the recovery of any endangered or threatened species"; and

- "repeals and reallocates provisions of existing statute regarding endangered and threatened species for purposes of clarity and readability."

The law also authorizes the commissioner of Inland Fisheries and Wildlife to adopt rules to provide a broad activity exemption for the taking of an endangered or threatened species, provided the commissioner determines that such an exemption covers "a specific activity that is widespread in its occurrence and participation but may not have a reasonably identifiable group of participants" that is not likely to result in incidental take and won't impair the prospects of a listed species recovery

This law refines and makes incremental changes to MESA incidental take provision which NOAA has previously approved for inclusion in Maine's coastal program among the core laws which provide the program's enforceable policies. These incremental adjustments to MESA reflect the State's on-going effort to strike an appropriate balance between development and conservation in the coastal zone and elsewhere in the State. They do not significantly affect special management areas, coastal program boundaries, program authorities or organization, or coordination, public involvement, or the national interest, and thus is a routine program change under the criteria of 15 C.F.R. §923.80(d).

Background Regarding Changes to DEP Rules Implementing the Site Law

The Site Law (38 M.R.S. §481, *et seq.*) provides for review and permit approval of development activities which it identifies as having a substantial effect on the environment. Defined in statute, these include projects occupying more than 20 acres, projects that involve creation of three acres or more of impervious surface, large subdivisions, and oil terminal facilities. DEP has adopted rules which further detail and implement the standards of approval under the Site Law. These rules address a variety of issues including stormwater management, groundwater protection, wildlife and fisheries, noise, and unusual natural areas.

Both the Site Law and DEP's rules implementing its provisions have long been included among the core laws that provide the MCP's enforceable policies. As the law and its rules have been refined and evolved over time to address new and emerging issues and DEP's experience in administering the Site Law. In enacting these changes, DEP indicated that they would not significantly alter how DEP administers the Site Law.

• DEP Rules Chapter 100, Definitions (air quality law)

As DEP explains in the basis statement provided on adoption of these rule changes, "Chapter 100 is being amended to correct definitions required for implementation of the federal new source review (NSR) requirements for the PM 2.5 and ozone National Ambient Air Quality Standards." The State is providing notice of these changes in accordance with 16 U.S.C. §1456(f), which provides that any requirement established under the Clean Air Act ("CAA") or by state or local governments pursuant to the CAA is incorporated into the state's coastal zone management program as an applicable air quality requirement.

• DEP Rules Chapter 373, Technical and Financial Capacity Standard

As DEP explains in the rulemaking factsheet, chapter 373 of its rules establishes the "financial capacity" and "technical ability" standards for projects subject to review under the Site Law. DEP further explains that these changes "update the requirements for financial capacity and technical ability to reflect changes in nomenclature and Department practices since the rule was adopted in 1979, remove surplus language, provide greater clarity as to how an applicant may satisfy the requirements of this Chapter, and provide examples of common terms and conditions applied to [Site Law] permits ...." These changes also remove from chapter 373 sections that cover environmental matters, such adequate provision for solid waste disposal, and move them to chapter 375 of DEP's rules (see below), which further details the Site Law's environmental standards.

These administrative rule changes refine standards that have long been approved by NOAA for inclusion in Maine's coastal program among the core laws which provide the program's enforceable policies. These refinements do not significantly affect special management areas, coastal program boundaries, program authorities or organization, or coordination, public involvement, or the national interest, and thus are routine program changes under the criteria of 15 C.F.R. §923.80(d).

• DEP Rules Chapter 375, No Adverse Effect on the Environment Standard

Chapter 375 of DEP's rules details the Site Law's "no adverse effect on the natural environment" standard, 38 M.R.S. §484(3), which has been among the enforceable policies of the Maine Coastal Program since its inception. This chapter addresses matters such as information an applicant must submit to demonstrate compliance and terms and conditions of approval which DEP may impose in a Site Law permit to ensure compliance with the standard. The changes proposed as routine program changes incorporate updated requirements formerly in chapter 373 (see above) regarding solid waste, odor control, and assurance of sufficient and healthful water supplies, which DEP determined belong in chapter 375, since they address environmental effects.

For the most part, these changes to chapter 375 are technical and administrative, involving only reenactment of language taken from another rule previously approved for inclusion among the Maine Coastal Program's core laws. Accordingly, these changes do not present a significant issue regarding special management areas, coastal program boundaries, program authorities or organization, or coordination, public involvement, or the national interest and are routine program changes under the criteria of 15 C.F.R. §923.80(d).

• DEP Rules Chapter 380, Long-term Construction Projects

The recently adopted rule, Chapter 380, Long-Term Construction Projects Under the Site Location of Development Act, is a replacement for the repealed Chapter 380, Planning Permit, rule. The prior Chapter 380, which had been in place since 1997 and which NOAA had previously approved for inclusion among the core laws that provide the MCP's enforceable policies, provided for a Planning Permit option that was little-used since its adoption. The new Chapter 380 attempts to address the same need, projects which will not be completed within the normal lifespan of a Site Law permit. The new rule is more procedural in nature, and does not create separate submission requirements as the former Chapter 380 did. Instead, applicants will simply rely on the submission requirements of the standard Site Law application, with the option of using specified assumptions for some aspects of the development. The new rule also allows a development that has been issued a planning permit under the repealed Chapter 380 to opt into the procedures of the new Chapter 380

As outlined above, the new Chapter 380 is conceptually similar to its predecessor, which NOAA approved as a routine program change. Incorporation of the new Chapter 380 is likewise a routine program change under the criteria of 15 C.F.R. §923.80(d) since it does not present a significant issue regarding special management areas, coastal program boundaries, program authorities or organization, or coordination, public involvement, or the national interest.

• DEP Rules Chapter 501, Stormwater Management Compensation Fees and Mitigation Credit

Chapter 501 of DEP's rules provide the standards by which DEP determines the compensation fee or mitigation necessary to meet the requirements of the Stormwater Management Law, 38 M.R.S. §420-D(11). As DEP explains in the basis statement for these rule changes, these amendments "revise the on-site or off-site mitigation credit earned by a mitigation project in the direct watershed of an urban impaired stream to more accurately reflect the effectiveness of different mitigation activities on each of the following sites: 1) Road or high use parking lots; 2) Medium use parking lots; 3) Other parking lots; 4) Roof or impervious areas; and 5) Landscaped areas."

NOAA previously approved incorporation of both the Stormwater Law and its implementing regulations (Chapters 500 and 501 of DEP's rules) as core laws that provide enforceable policies of the Maine Coastal Program. These changes reflect DEP's efforts to refine these previously-approved rules and their efficacy as applied. These changes do not present a significant issue regarding special management areas, coastal program boundaries, program authorities or organization, or coordination, public involvement, or the national interest. Accordingly, their incorporation into the Maine Coastal Program as core laws that provide enforceable policies is a routine program change under the criteria of 15 C.F.R. §923.80(d).

• DEP Rules Chapter 691, Underground Oil Storage Facilities

Chapter 691 of DEP's rules provides the standards governing installation, removal, and related matters concerning underground oil storage tanks. As outlined by DEP in the basis statement for these rule changes, these amendments "align the Department's rules with changes in the underlying statutes made by the 127th Legislature in P.L. 2015 c. 319", pertinent provisions of which DACF previously submitted and NOAA approved as routine changes to the MCP.

These changes are editorial in nature and include correction of cross-references to reflect statutory changes made by P.L. 2015 c. 319 and do not present a significant issue regarding special management areas, coastal program boundaries, program authorities or organization, or coordination, public involvement, or the national interest. Accordingly, they are routine program changes under the criteria of 15 C.F.R. §923.80(d).

Appendix A

Text of public notice

Notice of Proposed Routine Program Changes to the Maine Coastal Program

Under Section 307 of the Coastal Zone Management Act ("CZMA"), the "federal consistency" provision, federal agencies have an obligation to conduct their activities consistently with state environmental and land use statutes and rules ("core laws") which provide the enforceable policies of the Maine Coastal Program ("MCP"), Maine's federally-approved coastal zone management program. In accordance with 15 C.F.R. §923.84, the Maine Department of Agriculture, Conservation and Forestry, Bureau of Resource Information and Land Use Planning ("DACF") is submitting to the federal National Oceanic and Atmospheric Administration, Office of Coastal Management ("NOAA"), for its review and approval as enforceable policies and program administration-related provisions of the MCP the following changes and additions to core law authorities enacted by the Second Regular Session of the 127th Maine Legislature: P.L. 2015 chapter: 423, sections 1-2. This recently enacted public law is available on-line at: http://legislature.maine.gov/ros/LawsOfMaine/#Law/127/R2/ACTPUB/498

In addition, this submission includes changes to the following administrative rules administered by the Department of Environmental Protection ("DEP") which implement the Site Location of Development Act, one of the MCP's long-approved core law authorities: DEP rules chapter 373 (financial and technical capacity standard), as amended effective June 3, 2016; DEP rules chapter 375 (no adverse environmental effect standard), as amended effective June 3, 2016; and DEP rules chapter 380 (long-term construction projects), as amended effective June 3, 2016. This submission also includes minor changes to DEP rules Chapter 100 (definitions in air quality laws), as amended effective May 22, 2016; Chapter 501 (stormwater management compensation and mitigation fees), as amended effective May 22, 2016; and Chapter 691 (requirements for underground oil storage facilities), as amended effective April 3, 2016. These rules, as amended, may be viewed on-line at: http://www.maine.gov/sos/cec/rules/06/chaps06.htm

PUBLIC COMMENTS

A copy of the State's filing submitting these changes to NOAA is available for download at: http://www.maine.gov/doc/nrimc/mcp/index.htm. A hard copy may be obtained from Aline Smith, Maine Coastal Program, Maine Department of Agriculture, Conservation and Forestry, Bureau of Resource Information and Land Use Planning/Maine Coastal Program, 93 State House Station, Augusta, Maine 04333-0038; tel: 207-287-2801; e-mail: Aline.Smith@maine.gov. Interested parties have three weeks from the date of this notice to submit comments to NOAA on whether the requested changes are routine program implementation. Comments may be sent to:

Joelle Gore, Chief
Stewardship Division
Office of Coastal Management
SSMC4, Room 10622
1305 East West Highway
Silver Spring, MD 20910
Joelle.Gore@noaa.gov

Appendix B

Text of proposed routine program changes - statutes

APPROVED | CHAPTER
APRIL 1, 2016 | 423
BY GOVERNOR | PUBLIC LAW

STATE OF MAINE

IN THE YEAR OF OUR LORD

TWO THOUSAND AND SIXTEEN

S.P. 663 - L.D. 1636

An Act To Amend the Laws Relating to Endangered and Threatened Species

Emergency preamble. Whereas, acts and resolves of the Legislature do not become effective until 90 days after adjournment unless enacted as emergencies; and

Whereas, the Department of Inland Fisheries and Wildlife's ability to effectively manage endangered and threatened species in conjunction with human activity is key to the protection and recovery of a listed species; and

Whereas, this legislation provides the Department of Inland Fisheries and Wildlife with tools necessary to properly manage listed endangered and threatened species; and

Whereas, it is critical that this legislation take effect immediately to ensure the Department of Inland Fisheries and Wildlife can properly manage 3 recently listed bat species in conjunction with timber harvesting and other human activities; and

Whereas, in the judgment of the Legislature, these facts create an emergency within the meaning of the Constitution of Maine and require the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore,

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 12 MRSA §12808, as amended by PL 2005, c. 477, §23, is further amended to read:

§12808. Unauthorized activities regarding endangered or threatened species

For the purposes of this section and section 12808-A, "to take," "take" and "taking" mean the act or omission that results in the death of any endangered or threatened species.

1. Prohibited acts regarding endangered or threatened species; negligence. Except as provided in ~~subsections 2 and 3~~ section 12808-A, a person may not negligently:

A. Import into the State or export out of the State any endangered or threatened species. A person who violates this paragraph commits a Class E crime;

B. Hunt, take, trap or possess any endangered or threatened species within the State. A person who violates this paragraph commits a Class E crime;

C. Possess, process, sell, offer for sale, deliver, carry, transport or ship, by any means whatsoever, any endangered or threatened species or any part of an endangered or threatened species. A person who violates this paragraph commits a Class E crime; or

D. Feed, set bait for or harass any endangered or threatened species. A law enforcement officer, as defined in Title 25, section 2801-A, subsection 5, must issue a warning to a person who violates this paragraph for the first time. A person who violates this paragraph after having previously been given a warning under this paragraph commits a Class E crime.

1-A. Prohibited acts regarding endangered or threatened species; intentional. Except as provided in ~~subsections 2 and 3~~ section 12808-A, a person may not intentionally:

A. Import into the State or export out of the State any endangered or threatened species. A person who violates this paragraph commits a Class D crime;

B. Hunt, take, trap or possess any endangered or threatened species within the State. A person who violates this paragraph commits a Class D crime;

C. Possess, process, sell, offer for sale, deliver, carry, transport or ship, by any means whatsoever, any endangered or threatened species or any part of an endangered or threatened species. A person who violates this paragraph commits a Class D crime; or

D. Feed, set bait for or harass any endangered or threatened species. A law enforcement officer, as defined in Title 25, section 2801-A, subsection 5, must issue a warning to a person who violates this paragraph for the first time. A person who violates this paragraph after having previously been given a warning under this paragraph commits a Class D crime.

~~**2. Exceptions for certain purposes.** Notwithstanding subsections 1 and 1-A or section 10650 as it applies to rules adopted in accordance with this subchapter, the commissioner may:~~

~~A. Under such terms and conditions as the commissioner may prescribe, permit any act prohibited by this section or by rule for educational or scientific purposes or to enhance the propagation or survival of an endangered or threatened species; and~~

~~B. Under such terms and conditions as the commissioner may prescribe, permit any endangered or threatened species that enters the State and is being transported to a point outside the State to be so entered and transported without restriction in accordance with the terms of any federal or state permit.~~

~~**3. Exceptions; incidental take plan.** Notwithstanding subsection 1, the commissioner may:~~

~~A. Permit the taking of any endangered species or threatened species if:~~

~~(1) Such taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity;~~

~~(2) The taking will not impair the recovery of any endangered species or threatened species; and~~

~~(3) The person develops and implements an incidental take plan approved by the commissioner to take an endangered species or threatened species pursuant to paragraph B; and~~

~~B. Allow a plan that minimizes the incidental taking of an endangered species or threatened species that specifies the following:~~

~~(1) A description of the specific activities sought to be authorized by the incidental take permit and an analysis of potential alternatives;~~

~~(2) The individual and cumulative effects that may reasonably be anticipated to result from the proposed actions covered by the plan;~~

~~(3) The recovery measures the applicant will implement to prevent, minimize and mitigate the individual and cumulative effects and any provisions that are necessary to prevent, minimize and mitigate circumstances that are likely to impair the recovery of any endangered or threatened species covered by the plan;~~

~~(4) The procedures for monitoring the effectiveness of the recovery measures in the plan;~~

~~(5) The anticipated costs of implementing the plan and the availability of necessary funding for the applicant to implement the plan; and~~

~~(6) Other modifications to the plan or other additional measures, if any, that the department may require and such other matters as the department determines to be necessary for the recovery of species consistent with this section.~~

~~The department shall seek input from knowledgeable individuals or groups on each incidental take plan for endangered or threatened species.~~

~~If any person fails to abide by the terms of any permit authorizing the incidental taking of an endangered or threatened species, the permit must be immediately suspended or revoked.~~

Sec. 2. 12 MRSA §12808-A is enacted to read:

§12808-A. Authorized activities regarding endangered or threatened species

Notwithstanding section 12808 and notwithstanding section 10650 as it applies to rules adopted in accordance with this subchapter, the commissioner may authorize certain activities regarding endangered or threatened species in accordance with the following.

1. Education, research, conservation and transportation. Under such terms and conditions as the commissioner prescribes, the commissioner may:

A. Authorize an act prohibited by section 12808 or by rule for educational or scientific purposes or to enhance the recovery or survival of an endangered or threatened species; and

B. Authorize a person to transport without restriction but in accordance with the terms of any federal or state permit an endangered or threatened species into, within or out of the State.

2. Specific activity; incidental take plan. Under such terms and conditions as the commissioner prescribes, the commissioner may authorize a person to take an endangered or threatened species pursuant to an incidental take plan if:

A. The taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity;

B. The taking will not impair the recovery of any endangered or threatened species; and

C. The person develops and implements an incidental take plan in accordance with subsection 5 and that plan is approved by the commissioner. The commissioner may modify or waive the requirement under this paragraph if the commissioner determines the criteria in subsection 5 are substantially addressed in another permit, license or agreement.

The commissioner shall seek input from knowledgeable individuals or groups on each proposed incidental take plan developed under this subsection.

If the person violates any of the terms or conditions of an authorization granted pursuant to this subsection, the authorization must be immediately suspended or revoked and the person is subject to the prohibitions and penalties in section 12808 for that violation.

3. Widespread activity; incidental take plan. Under such terms and conditions as the commissioner prescribes, the commissioner may authorize the taking of an endangered or threatened species pursuant to a widespread activity incidental take plan developed by the commissioner in accordance with subsection 5 if:

A. The taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity;

B. The taking will not impair the recovery of any endangered or threatened species; and

C. The commissioner determines that the activity is widespread, is conducted by a reasonably identifiable group of participants and poses a manageable risk of taking an endangered or threatened species.

The commissioner shall hold at least one public hearing and seek input from knowledgeable individuals or groups on each proposed incidental take plan developed under this subsection.

If a person violates any of the terms or conditions of an authorization granted pursuant to this subsection, the authorization must be immediately suspended or revoked for that person and that person is subject to the prohibitions and penalties in section 12808 for that violation.

4. Broad activity exemption. The commissioner may adopt rules to provide an exemption, under such terms and conditions as the commissioner determines necessary, for a specific activity otherwise prohibited by section 12808, if the commissioner determines the exemption:

A. Addresses a specific activity that is widespread in its occurrence but may not have a reasonably identifiable group of participants;

B. Poses little or no risk of taking an endangered or threatened species; and

C. Will not individually or cumulatively impair the recovery of any endangered or threatened species.

The commissioner shall hold at least one public hearing and seek input from knowledgeable individuals or groups on each proposed rule to provide a broad activity exemption.

Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

5. Incidental take plan criteria. The commissioner may approve or adopt an incidental take plan developed pursuant to subsection 2 or 3 that minimizes the incidental taking of an endangered or threatened species and that provides the following:

A. A description of the specific activities sought to be authorized by the incidental take plan and an analysis of potential alternatives;

B. The individual and cumulative effects that may reasonably be anticipated to result from the proposed actions covered by the incidental take plan;

C. The recovery measures the applicant will implement to prevent, minimize and mitigate the individual and cumulative effects and any provisions that are necessary to prevent, minimize and mitigate circumstances that are likely to impair the recovery of any endangered or threatened species covered by the incidental take plan;

D. The procedures for monitoring the effectiveness of the recovery measures in the incidental take plan;

E. The anticipated costs of implementing the incidental take plan and the availability of necessary funding for the applicant to implement the plan; and

F. Other modifications to the incidental take plan or additional measures, if any, that the commissioner may require and such other matters as the commissioner determines to be necessary for the recovery of species consistent with this section.

Emergency clause. In view of the emergency cited in the preamble, this legislation takes effect when approved.

Chapter 100: DEFINITIONS REGULATION

SUMMARY: This regulation provides definitions for those terms used in the air pollution control regulations and emission standards.

***

11. Ambient increment. "Ambient increment" means, for new sources and modifications, the increase in ambient SO_2, PM2.5, PM10 and NO_2 concentrations of the future allowable emissions (the maximum emissions being modeled and licensed) over the baseline concentrations of these ambient air pollutants. For existing sources, "ambient increment" means the increase in ambient SO_2, PM2.5, PM10 and NO_2 concentrations of the actual current emissions over the baseline concentrations of these ambient air pollutants. To identify baseline emissions from a source for ambient increment determination, the Department shall presume actual emissions from the following calendar years to be representative of normal operation for the specified pollutants:

A. Calendar year 1977 for SO_2 and PM_{10};

B. Calendar year 1987 for NO_2;

C. Calendar year 2012~~-0~~ for $PM_{2.5}$; and

D. For nonattainment areas, the calendar year the Department submits the regulation determination to EPA.

***

149. Regulated pollutant. "Regulated pollutant" means the following:

***

I. The following are considered regulated pollutants:

(1) Sulfur dioxide is a precursor to PM2.5 in all attainment and unclassifiable areas.

(2) Nitrogen oxides are presumed to be precursors to PM2.5 in all attainment and unclassifiable areas, unless the Department demonstrates to EPA's satisfaction or EPA demonstrates that emissions of nitrogen oxides from sources in a specific area are not a significant contributor to that area's ambient PM2.5 concentrations.

(3) Volatile organic compounds and nitrogen oxides are presumed to be precursors to ozone. However, volatile organic compounds are presumed not be precursors to PM2.5 in any attainment or unclassifiable area, unless the Department demonstrates to EPA's satisfaction or EPA demonstrates that emissions of volatile organic compounds from sources in a specific area are a significant contributor to that area's ambient PM2.5 concentrations.

***

156. Significant emissions increase. "Significant emissions increase" means a Major Modification which results in:

A. Any net emissions increase of a regulated pollutant that would equal or exceed any of the rates listed:

Regulated Pollutant	Rates (TPY)
Particulate Matter (PM)	25
PM_{10}	15
PM2.5	10*
Sulfur dioxide	40
Nitrogen oxides	40
Nitrogen oxides (as precursor to ozone)	40
Carbon monoxide	100
Ozone -measured as VOC or NOx	40
Ozone (measured as VOC) in the OTR	40
Lead	0.6
GHGs	75,000 (CO_2e)
Fluorides	3
Sulfuric acid mist	7
Hydrogen sulfide (H_2S)	10
Total reduced sulfur (including H_2S)	10
Reduced sulfur compounds (including H_2S)	10
MWC organics (Municipal Waste Combustor emissions measured as total tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans)	3.5×10^{-6}
MWC metals (measured as particulate matter)	15
MWC acid gases (measured as SO_2 and HCl)	40
Municipal solid waste landfill emissions (measured as nonmethane organic compounds)	50

* 10 tpy of direct emissions; 40 tpy SO2 emissions; 40 tpy ~~NO2~~ NOx emissions unless demonstrated not to be a PM2.5 precursor under CFR Part 51.166(b)(49).

PROVISIONALLY ADOPTED DRAFT

06-096 DEPARTMENT OF ENVIRONMENTAL PROTECTION

Chapter 373: **FINANCIAL AND TECHNICAL CAPACITY ~~AND TECHNICAL ABILITY~~ STANDARDS OF THE SITE LOCATION OF DEVELOPMENT ACT ~~LAW~~**

SUMMARY: This chapter includes rules adopted pursuant to the "financial capacity" and "technical ability" standard of the Site Location of Development Act~~(Site Law)~~, 38 M.R.S.A. ~~.~~ § 484(1). The rules elaborate on the statutory standards, set forth the information that must be submitted pursuant to each standard, and explain the Department's authority to impose conditions on a permit issued. ~~These rules describe the scope of review of the Board in determining a developer's compliance with the "financial capacity" standard of the Site Location Law (38 M.R.S.A., Section 484(1); the information which shall be submitted, when appropriate, within an application for approval; and, the terms and conditions which the Board may impose on the approval of an application to ensure compliance with the standard.~~

1. **Introduction.** This chapter relates to the financial capacity and technical ability standard of the Site Location of Development ~~Law~~ Act (Site Law). 38 M.R.S.A. ~~.~~ § 484(1). To obtain a Site Law permit an applicant must demonstrate the financial capacity and technical ability to design, construct, operate and maintain the development in compliance with ~~meet~~ state environmental standards and the terms and conditions of the permit, ~~the applicant must have a sufficient level of financial capacity and technical ability~~.

2~~1~~. **Financial Capacity ~~to Meet Pollution Control Standards~~**

A. **Standard. ~~Scope of Review.~~** ~~In determining whether the developer has the financial capacity to meet state air and water pollution control standards, the Board department shall consider all relevant evidence to the effect that the developer has the financial capacity to construct, operate, and maintain all aspects of the development, and not just the pollution control aspects.~~ The applicant shall have financial capacity to design, construct, operate, and maintain the development in a manner consistent with state environmental standards and the provisions of the Site Law. The applicant must have the financial capacity ~~to design and construct~~ for all aspects of the development, and not solely the environmental protection aspects. Evidence of financial capacity must be provided prior to a decision on an application, except, pursuant to 38 M.R.S. § 484(1), the department may defer a final finding on financial capacity by placing a condition on a permit that requires the permittee to provide final evidence of financial capacity before the start of any site alterations, ~~as otherwise conditioned by the department.~~

~~The department may issue a permit under the Site Law that conditions any site alterations upon a developer providing the department with evidence that the permittee has been granted a line of credit or a loan by a financial institution authorized to do business in this State as defined in Title 9-B, section 131, subsection 17-A or with evidence as provided in Section 2(B).~~

~~NOTE: The Supreme Judicial Court of Maine stated in the case of In re: Maine Clean Fuels, Inc., 310 A. 2d 736, 755 (1973) that "it is clear that the ability to finance the cost of meeting pollution standards is inexorably a part of the ability to obtain total financing." Furthermore, the Board's experience with developers has shown that air and water pollution control equipment is usually installed after all other aspects of the development are completed. If the developer's funds run low or run out toward the end of development, the pollution control~~

~~aspects of the development may be slighted. Therefore, in determining financial capacity, the Board requires proof of adequate funding for the completion of a development, including the pollution control aspects.~~

B. Submissions. The ~~a~~Applications for approval of a proposed developments ~~shall~~ must include evidence that affirmatively demonstrates that the developer has the financial capacity to ~~undertake~~ design, construct, operate, and maintain the proposed development, except in cases in which the Department defers a final determination as set forth in Section 2 (A) above. Evidence to demonstrate financial capacity must include~~ing~~ but is not limited to, the following information ~~such as the following, when appropriate:~~.

(1) Cost estimates. Accurate and complete cost estimates of the development, including all proposed phases. The itemization of major costs may include, but is not ~~be~~ limited to, the cost of the following activities: land purchase, erosion control, roads, sewers, structures, water supply, utilities, pollution abatement, ~~and~~ landscaping, and restoration of the site, if applicable.

(2) Time schedule. The time schedule for construction of all phases proposed. ~~and for satisfying pollution abatement measures~~.

(3) Evidence of funds. Evidence such as the following:

(a) ~~(a)~~ Letter of commitment or intent to fund. A letter from a financial institution, governmental agency, or other funding ~~agency~~ entity indicating a commitment to provide to the applicant a specified amount of funds and the uses for which the funds may be utilized. ~~utilized. (4) In~~ In cases where funding is required but there can be no commitment of money until approvals are received, an applicant may submit a letter of "intent to fund" from ~~the~~ an appropriate funding institution indicating the amount of funds intended to be provided to the applicant and the~~ir~~ specified uses for which the funds are intended.

In cases where one or more limited liability corporations are part of the applicant's corporate structure, evidence must be submitted describing the applicant's corporate structure, and demonstrating that the proposed financing is clearly linked from the financing institution to the applicant.

(b) Self-financing

(i) ~~(5)~~ The most recent corporate annual report or financial statements indicating availability of sufficient funds to finance the development together ~~,~~with ~~explanatory~~ material explaining ~~interpreting~~ the report, ~~when requested,~~ and evidence that funds have been set aside for the proposed development. The financial information in any annual report and any financial statement should be audited, or an explanation provided ~~Corporate annual reports or financial statements should be audited, or evidence must be submitted describing~~ why audited reports are not available.

(ii) ~~(6)~~ Copies of bank statements of accounts held by the applicant or other evidence indicating ~~availability of~~ that funds~~,~~ are available and have been set aside for the proposed development. ~~when the developer will personally finance the development.~~

(c) Government agency

(i) Evidence that funds to complete the development have been included in an approved budget, that the expenditure of funds has been approved by the appropriate legal entity such as the municipality or the Legislature, that the issuance of bonds has been approved to cover the cost of the development, or that grant money has been obtained to cover development costs.

(ii) In cases where funding is required but there can be no commitment of money until approvals are received, a detailed plan outlining how funds for the development will be obtained and evidence that legal authority exists to implement the plan.

(d) Non-profit organization.

(i) Evidence that funds to complete the development have been included in an approved budget and that grant money or other funds have been obtained to cover the development costs.

(ii) In cases where funding is required but there can be no commitment of money until approvals are received, a detailed plan outlining how funds for the development will be obtained, including projections for and status of any fund raising.

(4) Phased development. In cases of phased development or long term construction projects, the department may find that the applicant has demonstrated adequate financial capacity to comply with department requirements provided (a) the applicant has demonstrated financial capacity for a separate first phase, and (b) the permit is conditioned to require that evidence of financial capacity adequate for review and approval be submitted to the department prior to construction of each subsequent phase. Construction of each subsequent phase may not begin prior to approval of financial capacity for that phase.

(5) Certificate of Good Standing. If the applicant is a registered corporation in Maine, provide a Certificate of Good Standing (available from the Secretary of State).

C. Terms and Conditions. The department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that the developer has and will maintain the financial capacity to meet permit requirements and state environmental ~~air and water pollution control~~ standards, such as~~:~~ the following.

(1) Performance bond. Requiring the posting of a performance bond to ensure that the development is constructed, operated and maintained, and the site restored, if applicable, in compliance with the permit requirements and state environmental standards.~~air and water pollution control plans are completed as approved.~~

(2) Phased development. Prior to the start of the first phase of construction and each subsequent phase, the permittee shall provide a cost estimate for that phase as well as evidence that the applicant has been granted a sufficient line of credit or a loan by a financial institution authorized to do business in this State or evidence of any other form of financial assurance determined by this Chapter to be adequate by the department for review and approval.

(3) Dedication of funds. Prior to the start of construction, the permitee shall submit, to the department for review and approval, final financial arrangements ~~indicating~~ demonstrating that funds are still available and have been specifically dedicated to the proposed development costs.

3~~2~~. Technical Ability ~~to Meet Air and Water Pollution Control Standards~~

~~**A. Preamble.** The Board is concerned that the developer have not only the financial capacity but also the technical ability and skilled manpower to meet pollution control standards, particularly when a large scale development includes sophisticated pollution abatement measures.~~

A~~B~~. Standards. ~~Scope of Review.~~ ~~In determining whether the developer has the technical ability to meet state air and water pollution control standards, the department Board. shall consider all relevant evidence to that effect, such as: the following.~~ The developer shall have the technical ~~capacity~~ ability to design, construct, ~~and~~ operate, and maintain the proposed development in a manner consistent with the permit and state environmental standards.

(1) Capability. ~~Evidence that p~~Project personnel ~~are~~ must be capable of properly designing, installing, operating and maintaining ~~pollution control devices~~ the proposed project in accordance with state environmental standards.

(2) Adaptation. ~~Evidence that, even i~~If the applicant's technical personnel have never before ~~constructed or operated~~ designed, constructed, and operated a development like the one proposed, competent engineering and field operational personnel must ~~will~~ be available who ~~and~~ can adapt their training and experience to accomplish the required tasks.

(3) Prior conduct. The department may consider e~~E~~vidence regarding the developer's prior conduct as a measure of willingness and ability to meet all terms and conditions of approval established by the department ~~Board~~.

B~~C~~. Submissions. The a~~A~~pplications for approval of a proposed development must ~~shall~~ include evidence that affirmatively demonstrates that the developer has the technical ability to design, construct, operate and maintain ~~undertake~~ the proposed development, including but not limited to the following information ~~such as the following, when appropriate.~~:

(1) Experience and training. A statement of the developer's prior experience or appropriate training, or both, relating to the nature of the proposed development.

(2) Personnel. A description of the types of personnel who will be ~~employed~~ used to design, ~~install~~construct, ~~and~~ operate, and maintain the proposed development ~~pollution control~~

~~measures~~, including but not limited to resumes, or similar documents describing experience with similar projects.

C~~D~~. Terms and Conditions. The department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that the developer has the technical ability to design, construct, ~~and~~ operate and maintain the development in a manner consistent with the permit and state environmental standards, ~~meet state air and water pollution control standards,~~ such as~~:~~ the following.

(1) Professional assistance. ~~Requiring the developer to employ~~ The permittee shall employ a capable professional engineer or other professional knowledgeable and experienced in the disciplines necessary to ensure that state ~~air and water pollution control~~ environmental standards are met.

(2) Training program. ~~Requiring~~ The permittee shall implement a training program for the appropriate personnel to acquaint them with the operation and maintenance of pollution control equipment, and with state environmental control standards.

(3) Third-party inspector (3PI). ~~When the development is of substantial size and of a complex nature, requiring provision for an independent consultant to conduct on-site inspection, at the developer's expense, to ensure proper execution of plans as approved, including any conditions imposed by the~~ Board~~.~~ The permittee shall retain the services of a third-party inspector in accordance with the Department's third party inspection program, if required by the Department.

~~(4) Prior approval of site contractor. Prior to the start of construction, the permittee shall submit details related to the site contractor to the department for review and approval.~~

~~**3. Adequate Provision for Solid Waste Disposal**~~

~~**A. Scope of Review.** In determining whether the developer has made adequate provision for solid waste disposal, the Board shall consider all relevant evidence to that effect, such as evidence that:~~

~~(1) All solid waste will be disposed of in a manner which ensures that:~~

~~(a) No adverse effects on the natural environment will result;~~

~~(b) Public health, safety, and welfare will not be adversely affected; and~~

~~(c) The wastes will not combine with other wastes, water, or other natural or man-made substances to create additional harmful effects to the natural environment or the public health, safety, and welfare.~~

B. Submissions. Applications for approval of a proposed development shall include evidence that affirmatively demonstrates that the developer has made adequate provision for solid waste disposal, including information such as the following, when appropriate:

(1) The types and estimated quantities of solid waste to be generated by the development and the proposed method of disposal.

(2) A letter from the operator of a solid waste disposal facility or a municipality stating that adequate capacity exists for solid waste generated by the development and that the development may utilize the solid waste disposal facility.

NOTE: The Board may deny approval if the solid waste disposal facility proposed to be used is not in compliance with applicable state laws and regulations.

(3) When the proposed development is or includes the establishment of a solid waste disposal facility, the developer shall supply evidence of compliance with the Solid Waste Management Act (38 M.R.S.A., Section 1301 et seq.).

C. Terms and Conditions. The Board may, as a term or condition of approval, establish any reasonable requirement to ensure that the developer has made adequate provision for solid waste disposal, such as requiring:

(1) a groundwater quality monitoring program;

(2) on-site construction supervision or engineering inspection by a certified engineer or geologist;

(3) operational inspections and reports by an independent consultant.

4. Adequate Provisions for the Control of Odors

A. Preamble. The Board recognizes that offensive odors may km generated by solid waste disposal facilities and certain types of commercial and industrial developments and that these odors can have an undesirable effect on surrounding uses and people living in the area.

B. Scope of Review. In determining whether the developer has made adequate provision for the control of odors, the Board shall consider all relevant evidence to that effect.

C. Submissions. Applications for approval of any development likely to be the source of offensive odors shall include evidence that affirmatively demonstrates that the developer has made adequate provision for the control of odors, including information such as the following, when appropriate:

(1) the identification of any sources of odors from the development;

(2) an estimation of the area which would be affected by the odor, based on general experience in dealing with the material or process used in the development, or similar materials or processes;

(3) proposed systems for enclosure of odor-producing materials and processes, and proposed uses of technology to control, reduce or eliminate odors.

D. Terms and Conditions. The Board may, as a term or condition of approval, establish any reasonable requirement to ensure that the developer has made adequate provision for the control of odors.

5. Adequate Provision for Securing and Maintaining Sufficient and Healthful Water Supplies

A. Scope of Review. In determining whether the developer has made adequate provision for securing and maintaining a sufficient and healthful water supply, the Board shall consider all relevant evidence to that effect.

B. Submissions. Applications for approval of proposed developments shall include evidence that affirmatively demonstrates that the developer has made adequate provision for securing and maintaining a sufficient and healthful water supply, including information such as the following, when appropriate:

(1) A letter from the appropriate utility or water district that a sufficient and healthful water supply exists and may be utilized by the development.

(2) If water is to be supplied on-site, a letter from a geologist or well driller knowledgeable about the area where the development is located that a sufficient and healthful water supply is likely to be available.

(a) If there is reasonable doubt that a sufficient and healthful water supply can be provided by means of on-site wells, the following may be required:

(i) water from wells located in close proximity to the development site be tested for potability; and/or

(ii) a test well be dug or drilled on the development site and at report prepared indicating the volume and potability of water obtained from the well.

(3) If water supply and sewage disposal are to be handled on-site, and if lots are less than 2 acres in size, identification of the location of wells and on-site sewage disposal systems for each lot. The separation distance between wells and on-site sewage disposal areas shall be at least the minimum distance established in the State of Maine Plumbing Code.

(4) If water is to be provided by a common source:

(a) evidence that there will be sufficient water to serve the development;

~~(b) evidence that the common water supply system will be constructed in conformance with the Maine Drinking Water Regulations, authorized by 22 M.R.S.A., Section 601; and~~

~~(c) evidence that adequate provision has been made for the establishment of a mechanism to ensure proper operation and maintenance of the water supply system.~~

~~C. Terms and Conditions. The Board may, as a term or condition of approval, establish any reasonable requirement to ensure the adequate provision of a sufficient and healthful water supply, such as requiring that:~~

~~(1) One or more central wells be installed with adequate water for the development.~~

~~(2) An applicant arrange for adequate water service with a local utility or water district, or provide an adequate off-site common well, in cases where the Board determines that on-site water supplies may not be adequate.~~

~~(3) The location of wells and on-site sewage disposal areas be established by deed conditions.~~

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PROVISIONALLY ADOPTED DRAFT

06-096 DEPARTMENT OF ENVIRONMENTAL PROTECTION

Chapter 375: NO ADVERSE ENVIRONMENTAL EFFECT STANDARDS OF THE SITE LOCATION OF DEVELOPMENT ACT ~~LAW~~

SUMMARY: These regulations describe the scope of review of the Department ~~Board~~ in determining a developer's compliance with the "no adverse effect on the natural environment" standard of the Site Location Law (38 M.R.S.A. Section 484(3)); the information which shall be submitted, when appropriate, within an application for approval; and, the terms and conditions which the Department ~~Board~~ may impose on the approval of an application to ensure compliance with the standard.

NOTE: In determining whether the developer has made adequate provision for fitting the development harmoniously into the existing natural environment and that the development will not adversely affect existing uses, scenic character, or natural resources in the municipality or in neighboring municipalities, the Department ~~Board~~ has identified several specific areas of concern which are dealt with in detail below.

1. No Unreasonable Adverse Effect On Air Quality

A. Preamble. The Department ~~Board~~ recognizes that point source emissions from certain types of commercial and industrial developments and solid waste disposal facilities and non-point source emissions deriving from industrial, commercial, and governmental developments can have an unreasonable adverse effect on air quality.

B. Scope of Review. In determining whether the proposed development will have an unreasonable adverse effect on ambient air quality, through point or non-point sources of chemical pollutants or particulate matter, the Department ~~Board~~ shall consider all relevant evidence to that effect, such as evidence that:

(1) The best practicable treatment of point sources of air pollution will be utilized and that point source emissions meet state ambient air quality standards and state emissions standards.

(2) The amount of air pollution produced from either point or non-point sources of air emissions will be consistent with the Board's "Policy on Air Quality Use," adopted March 28, 1979.

C. Submissions. Applications for approval of proposed industrial, commercial and governmental developments and solid waste disposal facilities shall include evidence that affirmatively demonstrates that there will be no unreasonable adverse effect on air quality, including information such as the following, when appropriate:

(1) Evidence that an Air Emission License has been or will be obtained.

(2) Evidence that increased traffic generated by the development will not significantly effect the ambient air quality. Modeling of the effect of non-point sources of air pollution on ambient air quality may be requested.

D. Terms and Conditions. The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that the proposed development will have no unreasonable adverse effect on air quality, such as requiring that:

(1) Emissions from point sources of pollution be monitored.

(2) The size of the parking lots be limited in order to limit the amount of non-point source pollutants generated by the development.

2. No Unreasonable Alteration of Climate

A. Preamble. The Department ~~Board~~ recognizes the potential of large-scale, heavy industrial facilities, such as power generating plants, to affect the climate in the vicinity of their location by causing changes in climatic characteristics such as rainfall, fog, and relative humidity patterns.

B. Scope of Review. In determining whether the proposed development will cause an unreasonable alteration of climate, the Department ~~Board~~ shall consider all relevant evidence to that effect.

C. Submissions. Applications for approval of large-scale, heavy industrial developments, such as power generating plants, shall include evidence that affirmatively demonstrates that there will be no unreasonable alteration of climate, including information such as the following, when appropriate:

(1) Evidence that the proposed development will not unreasonably alter the existing cloud cover, fog, or rainfall characteristics of the area.

D. Terms and Conditions. The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that the proposed development will not cause an unreasonable alteration of climate.

3. No Unreasonable Alteration of Natural Drainage Ways

A. Scope of Review. In determining whether the proposed development will cause an unreasonable alteration of natural drainage ways, the Department ~~Board~~ shall consider all relevant evidence to that effect, such as evidence that:

(1) Where a development site is traversed by a natural water course, drainage way, channel, or stream, a drainage right-of-way will be provided that substantially conforms with the lines of such natural water courses. Such rights-of-way shall be at least thirty feet in width.

(2) Any grading or other construction activity on the site will cause no unreasonable alteration of natural drainage ways such that drainage, other than that which occurred prior to development, will adversely affect adjacent parcels of land and that drainage ways flowing from adjacent parcels of land to the development site will be impeded.

B. Submissions. Applications for approval of proposed developments shall include evidence that affirmatively demonstrates that there will be no unreasonable alteration of natural drainage ways, including information such as the following, when appropriate.

(1) A plan showing all existing water courses, drainage ways, channels, or streams to be affected by the development, and the nature, width and location of proposed easements, rights-of-way, culverts, catch basins or other means of channeling surface water within the development and over adjacent parcels of land.

(2) Deed covenants which establish the easements or rights-of-way and provide for their continued maintenance.

C. **Terms and Conditions**. The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that there will by no unreasonable alteration of natural drainage ways.

4. No Unreasonable Effect on Runoff/Infiltration Relationships

A. **Preamble.** The Department ~~Board~~ recognizes that same developments cause unreasonable increases in stormwater runoff by decreasing the infiltrative capacity of the soils on a development site. The Department ~~Board~~ also recognizes that increases in stormwater runoff cause increased danger of flooding, the pollution of surface water bodies, and the depletion of groundwater resources.

B. **Scope of Review.** In determining whether the proposed development will have an unreasonable effect on runoff/infiltration relationships, the Department ~~Board~~ shall consider all relevant evidence to that effect, such as evidence that:

(1) A stormwater management system will infiltrate, detain, or retain water falling on the site during a storm of an intensity equal to a twenty-five year, twenty-four hour storm such that the rate of flow of stormwater from the development does not exceed the rate of outflow of stormwater from the site prior to the undertaking of the development.

(a) Developments which convey stormwater directly into the ocean (excluding estuarine tidewaters) exclusively in manmade piped or open drainage systems are exempt from the requirements of this subsection.

(2) The physical, biological, and chemical properties of the receiving waters will not be unreasonably degraded by the stormwater runoff from the development site.

(3) The peak discharge of the receiving waters will not be increased as the result of the stormwater runoff from the development site for storms up to a level of intensity of a twenty-five year, twenty-four hour storm.

C. **Submissions**. Applications for approval of proposed developments shall include evidence that affirmatively demonstrates that there will be no unreasonable effect on runoff/infiltration relationships, including information such as the following, when appropriate:

(1) Evidence that the proposed stormwater management system has been designed by a professional engineer or other person duly qualified to undertake the design. The designer of the system will evaluate the effectiveness of various stormwater methods and develop and

make available for review the hydraulic computations based on accepted engineering practices to demonstrate that the standards established under subsection B, above, will be met.

(2) Evidence that the stormwater management system will take into consideration the upstream runoff which must pass over or through the development site. The system will be designed to pass upstream flows generated by a twenty-five year frequency through the proposed development without overloading the system or flooding areas not specifically planned for such flooding.

(3) Evidence that the design of piped or open channel systems will be based on a ten year flow frequency without overloading or flooding beyond channel limits. In addition, the areas expected to be flooded by runoff of a twenty-five year frequency will be designated, and no structures will be planned within such area.

(4) Evidence that, where permanent embankment-type storage or retention basins are planned, the basins will be designed in accordance with good engineering practice, such as outlined in the Soil Conservation Service Engineering Field Manual or other appropriate references.

(5) Evidence that rights-of-way or easements will be designated for all components of the stormwater management system lying outside of established street lines.

(6) Evidence that the developer will maintain all components of the stormwater management system until it is formally accepted by the municipality or a quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. The charter of such an association must be acceptable to the Department ~~Board~~.

(7) Evidence that the stormwater management system will be fully coordinated with project site plans, including consideration of street patterns, pedestrian ways, open space, building siting, parking areas, recreational facilities, and other utilities, especially sanitary wastewater disposal facilities.

(8) When the construction of a development is to occur in phases, the planning of the stormwater management system should encompass the entire site which may ultimately be developed, and not limited to an initial or limited phases of the development.

NOTE: The following references may be of assistance to a developer in making the necessary computations and in designing the stormwater management system:

"Urban Hydrology for Small Watersheds", Technical Release No. 55, USDA, Soil Conservation Service, University of Maine, Orono, Maine.

"Water Resources Protection Measures in Land Development - A Handbook", Tourbier and Westmacott, University of Delaware Water Resources Center, Newark, Delaware.

D. Terms and Conditions. The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that there will be no unreasonable effect on runoff/infiltration relationships.

5. Erosion and Sedimentation Control

A. Preamble. The Department ~~Board~~ recognizes the importance of controlling erosion and sedimentation to protect water quality and wildlife and fisheries habitat. Additionally, the Department ~~Board~~ considers topsoil to be a natural resource which should be properly managed. Control of erosion and sedimentation is a concern both during and after construction activities.

B. Scope of Review. In determining whether the developer has made adequate provision for controlling erosion and sedimentation, the Department ~~Board~~ shall consider all relevant evidence to that effect, such as evidence that:

(1) All earth changes will be designed, constructed, and completed in such a manner so that the exposed area of any disturbed land will be limited to the shortest period of time possible.

(2) Sediment caused by accelerated soil erosion will be removed from runoff water before it leaves the development site.

(3) Any temporary or permanent facility designed and constructed for the conveyance of water around, through, or from the development site will be designed to limit the water flow to a non-erosive velocity.

(4) Permanent soil erosion control measures for all slopes, channels, ditches, or any disturbed land area will be completed within fifteen calendar days after final grading has been completed. When it is not possible or practical to permanently stabilize disturbed land, temporary erosion control measures will be implemented within thirty calendar days of the exposure of soil.

(5) When vegetative cover will be established as a temporary or permanent erosion control measure:

(a) Plant species to be used and the seeding rates will take into account soil, slope, climate, and duration and use of the vegetative cover.

(b) Mulch will be provided at rates appropriate to ensure a minimum of soil and seed loss until an acceptable "catch" of seed is obtained.

(c) Reseeding will be done within a reasonable period of time if there is not an acceptable "catch".

(6) All development plans will incorporate building designs and street layouts that fit and utilize existing topography and desirable natural surroundings to the fullest extent possible.

C. **Submissions**. Applications for approval of proposed developments shall include evidence that affirmatively demonstrates that adequate provision will be made to control erosion and sedimentation, including information such as the following when appropriate:

(1) A comprehensive erosion and sedimentation control plan, designed in accordance with the "Maine Environmental Quality Handbook", the U.S.D.A., Soil Conservation Service's "Engineering Field Manual", or another appropriate reference, which includes the following information:

(a) A description and location of the limits of all proposed construction activities which result in the disturbance of the land.

(b) A description and location of all existing and proposed on-site drainage.

(c) The timing and sequence of all proposed land disturbances.

(d) A description and location of all proposed temporary and permanent erosion and sedimentation control measures, including the timing and sequence of their completion.

(e) A proposed program for the maintenance of all erosion and sedimentation control facilities which will remain after the project is completed, including a designation of the responsible party.

D. **Terms and Conditions**. The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that the developer will make adequate provision to control erosion and sedimentation, such as requiring that:

(1) Erosion control devices be in place before the commencing of other construction activities.

(2) Construction activity be limited to certain times of the year, particularly when soil type, slope, and the extent of area to be stripped pose serious potential for erosion and sedimentation.

6. **No Unreasonable Adverse Effect on Surface Water Quality**

A. **Preamble**. The Department ~~Board~~ recognizes that developments have the potential to cause the pollution of surface waters through both point and non-point sources of pollution.

B. **Scope of Review**. In determining whether the proposed development will have an unreasonable adverse effect on surface water quality, the Department ~~Board~~ shall consider all relevant evidence to that effect, such as evidence that:

(1) The development or reasonably foreseeable consequences of the development will not discharge any water pollutants which affect the state classification of a surface water body (38 M.R.S.A. Section 363 et seq.).

(2) The best practicable treatment of point sources of water pollutants will be utilized.

(3) The total phosphorous concentrations in all tributaries to great ponds will not exceed the standard established in Department Regulation 583.1 as the result of the proposed development.

(4) Any effect on surface water temperature will be in compliance with all appropriate standards established in Department Regulations 582.1 - 582.8.

C. **Submissions**. Applications for approval of proposed developments shall include evidence that affirmatively demonstrates that there will be no unreasonable adverse effect on surface water quality, including information such as the following, when appropriate:

(1) Where sewage disposal is to be handled off-site by a municipal or quasi-municipal sewage treatment facility, a letter from the authorized agent of the facility stating that there is adequate capacity to ensure satisfactory treatment.

(2) Evidence that a waste discharge license, as required by 38 M.R.S.A. Sections 413 et seq., has been or will be obtained.

D. **Terms and Conditions**. The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that the proposed development will have no unreasonable adverse effect on surface water quality.

7. **No Unreasonable Adverse Effect on Ground Water Quality**

A. **Preamble**. The Department ~~Board~~ recognizes the importance of protecting ground water resources in order to promote the future health, safety, and welfare of the citizens of Maine through the maintenance of an adequate supply of safe drinking water.

B. **Scope of Review**. In determining whether the proposed development will have an unreasonable adverse effect on ground water quality, the Department ~~Board~~ shall consider all relevant evidence to that effect, such as evidence that:

(1) The development will not result in the existing ground water quality becoming inferior to the physical, biological, chemical, and radiological levels for raw and untreated drinking water supply sources specified in the Maine State Drinking Water Regulations, pursuant to 22 M.R.S.A. Section 601. If the existing ground water quality is inferior to the State Drinking Water Regulations, the developer will not degrade the water quality any further.

C. **Rebuttable Presumption Against Disposal of Waste in Certain Areas**. The Department ~~Board~~ operates under the rebuttable presumption that the storage and/or disposal of solid wastes, hazardous wastes, and leachable or liquid wastes, including petroleum products and septage, pose serious threats to public health, safety, and welfare through the potential pollution of the ground water when such storage and/or disposal occurs on or above sand and gravel aquifers or the recharge areas of sand and gravel aquifers.

NOTE: Maps of sand and gravel aquifers and their recharge areas are available for portions of the state from the Bureau of Geology, Department of Conservation, Augusta.

(1) An applicant seeking approval for a development which involves one or more of the activities specified above, must overcome this presumption by persuasive evidence that the development is unique in some way that allows for compliance with the intent of this subsection.

D. Submissions. Applications for approval of proposed developments shall include evidence that affirmatively demonstrates that there will be no unreasonable adverse effect on ground water quality, including information such as the following, when appropriate:

(1) A comprehensive list, including physical and chemical characteristics and projected quantities of wastes to be disposed of or stored within the proposed development which may potentially contaminate the ground water.

(2) Methods for preventing ground water pollution as the result of the disposal and/or storage of wastes.

(3) An evaluation of the geological, hydrologic, and soils conditions of the development site.

(4) Data establishing background ground water quality.

(5) Proposed plan of action, and alternatives, to be followed in the event the proposed development results in ground water contamination.

E. Terms and Conditions. The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that the proposed development will have no unreasonable adverse effect on ground water quality, such as requiring that:

(1) A ground water monitoring program be established and reports be filed with the Department at designated intervals.

(2) Specified wastes not be disposed of or stored within the proposed development.

8. No Unreasonable Adverse Effect on Ground Water Quantity

A. Preamble. The Department ~~Board~~ recognizes the importance of maintaining an adequate supply of ground water for drinking purposes. The Department ~~Board~~ also recognizes that the depletion of ground water resources can result in the intrusion of salt water into potable ground water supplies and can affect the hydrologic characteristics of surface water bodies (peak flows, low flows and water levels) resulting in adverse effects on their assimilative capacity and recreational use, as well as on certain wildlife habitats. Additionally, new wells can cause a lowering of the ground water supply to the point where existing wells run dry, particularly during the late summer and early fall.

B. Scope of Review. In determining whether the proposed development will have an unreasonable adverse effect on ground water quantity, the Department ~~Board~~ shall consider all relevant evidence to that effect, such as evidence that:

(1) The quantity of water to be taken from ground water sources will not substantially lower the found water table, cause salt water intrusion, cause undesirable changes in ground water flow patterns, or cause unacceptable ground subsidence.

C. Submissions. Applications for approval of proposed developments shall include evidence that affirmatively demonstrates that there will be no unreasonable adverse effect on ground water quantity, including information such as the following, where appropriate:

(1) Estimates of the quantity of ground water to be used by the proposed development.

(2) In the areas where salt water intrusion, the lowering of the ground water level, or land subsidence have been or can be reasonably be expected to be a problem, a report by a duly qualified person addressing the potential effects of ground water use by the proposed development.

D. Terms and Conditions. The Department ~~Board~~ may, as a term or condition of approval establish any reasonable requirement to ensure that there will be no unreasonable adverse effect on ground water quantity, such as requiring that:

(1) A development obtain its water from a surface water source, public community supply, or utility.

(2) Wells in the surrounding area be monitored to determine the effect of the development on ground water levels.

(3) People in the surrounding area, whose wells are adversely affected by the development, be provided with new wells or another source of potable water for their use and consumption.

9. Buffer Strips

A. Preamble. The Department ~~Board~~ recognizes the importance of natural buffer strips in protecting water quality and wildlife habitat. The Department ~~Board~~ also recognizes that buffer strips can serve as visual screens which can serve to lessen the visual impact of incompatible or undesirable land uses. The width and nature of buffer strips, if required, shall be determined by the Department ~~Board~~ on a case-by-case basis.

B. Scope of Review. In determining whether the developer has made adequate provision for buffer strips, when appropriate, the Department ~~Board~~ shall consider all relevant evidence to that effect, such as evidence that:

(1) Water bodies within or adjacent to the development will be adequately protected from sedimentation and surface runoff by buffer strips.

(2) Buffer strips will provide adequate space for movement of wildlife between important habitats.

(3) Buffer strips will shield adjacent uses from unsightly developments and lighting.

NOTE: The following GUIDELINES should be considered in establishing visual buffer strips.

(1) Plant materials used in the screen planting will be at least four feet high when planted and be of such evergreen species as will produce ultimately a dense visual screen at least eight feet high. Alternatively, a six-foot high wooden fence, without openings wider than 1", may be substituted.

(2) The screen will be maintained permanently, and any plant material which does not live will be replaced within one year.

(3) Screen planting will be so placed that at maturity it will be no closer than three feet away from any street or property line.

(4) The screen will be broken only at points of vehicular or pedestrian access.

(5) Fencing and screening will be so located within the developer's property line to allow access for maintenance on both sides without intruding upon abutting properties.

C. **Excavations for Sand, Gravel, Clay, Silt, Topsoil, or Rock** -- Buffer strips associated with an excavation for sand, gravel, clay, silt, topsoil, or rock must meet the buffer strip standards specified in Performance Standards for Excavations, 38 M.R.S.A. § 490-D, and Performance Standards for Quarries, 38 M.R.S.A. § 490-Z. These standards apply in lieu of Section 9(B) (1)-(3).

A gravel pit previously licensed under the Site Location of Development Law, 38 M.R.S.A § 484, may apply for a modification of the buffer strip requirements in such a permit. The Department may approve such modification if the buffer strip at least meets the minimum standards of §§ 490-D and 490-Z and the proposed excavation will not result in an unreasonable adverse impact on the natural environment.

D. **Submissions.** Applications for approval of proposed developments shall include evidence that affirmatively demonstrates that adequate provision of buffer strips, when appropriate, will be made, including information such as the following:

(1) The location and width of all natural buffer strips to be retained.

(2) The nature, location, width, and height of all vegetative buffer strips or architectural screens to be established.

(3) Legal provisions for the maintenance of all buffer strips and architectural screens.

E. **Terms and Conditions.** The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that the developer has made adequate provision for the establishment of buffer strips, such as requiring:

(1) The maintenance of existing vegetation as a natural buffer strip, which shall remain as a permanent feature of the landscape.

(2) The incorporation of buffer strip maintenance into deed covenants in projects where deed transfers of property to the general public are contemplated.

(3) Written permission of the Department of Environmental Protection for activities which may adversely affect a body of water or wildlife habitat protected by a natural buffer strip, such as: removal of live trees, stump and hot systems, and the displacement of rocks, topsoil and similar activities which would cause or allow increased soil erosion.

(4) The establishment of particular species of vegetation.

(5) The use of particular materials, colors, and styles in the construction of architectural screens.

10. Control of Noise

A. Preamble. The Department ~~Board~~ recognizes that the construction, operation and maintenance of developments may cause excessive noise that could degrade the health and welfare of nearby neighbors. It is the intent of the Department ~~Board~~ to require adequate provision for the control of excessive environmental noise from developments proposed after the effective date of this regulation.

B. Applicability

(1) This regulation applies to proposed developments within municipalities without a local quantifiable noise standard and in unorganized areas of the State. When a proposed development is located in a municipality which has duly enacted by ordinance an applicable quantifiable noise standard, which (1) contains limits that are not higher than the sound level limits contained in this regulation by more than 5 dBA, and (2) limits or addresses the various types of noises contained in this regulation or all the types of noises generated by the development, that local standard, rather than this regulation, shall be applied by the Department ~~Board~~ within that municipality for each of the types of sounds the ordinance regulates. This regulation applies to developments located within one municipality when the noise produced by the development is received in another municipality and, in these cases, the Department ~~Board~~ will also take into consideration the municipalities' quantifiable noise standards, if any.

(2) This regulation applies to expansions and modifications of developments when such expansions and modifications are proposed after the effective date of this regulation and subject to site location approval, but only to the noise produced by the proposed expansion or modification of the development, unless (1) the existing development was constructed since 1-1-70 and (2) at the time of construction, the existing development was too small to require site location approval. In situations where conditions (1) and (2) above apply, then this regulation applies to the whole development (both existing facility and proposed expansion or modification). This regulation also applies to expansions and modifications of existing developments when such expansions and modifications require an amendment to the development's Site Law permit, but only to the noise produced by the expansion or modification.

(3) This regulation does not apply to existing developments or portions of existing developments constructed prior to 1-1-70 or approved under the Site Law prior to the effective date of this regulation. This regulation does not apply to relicensing of existing solid waste facilities previously approved under the Site Law.

(4) The sound level limits contained in this regulation apply only to areas that are defined as protected locations, and to property lines of the proposed development or contiguous property owned by the developer, whichever are farther from the proposed development's regulated sound sources.

(5) The sound level limits contained in this regulation do not apply to noise received within the development boundary.

NOTE: The Department ~~Board~~ will reconsider the effect and operation of the regulation one year from its effective date.

C. Sound Level Limits

(1) Sound From Routine Operation of Developments

(a) Except as noted in subsections (b) and (c) below, the hourly sound levels resulting from routine operation of the development and measured in accordance with the measurement procedures described in subsection H shall not exceed the following limits:

(i) At any property line of the development or contiguous property owned by the developer, whichever is farther from the proposed development's regulated sound sources:

75 dBA at any time of day.

(ii) At any protected location in an area for which the zoning, or, if unzoned, the existing use or use contemplated under a comprehensive plan, is not predominantly commercial, transportation, or industrial;

60 dBA between 7:00 a.m. and 7:00 p.m.
(the "daytime hourly limit"), and
50 dBA between 7:00 p.m. and 7:00 a.m.
(the "nighttime hourly limit").

(iii) At any protected location in an area for which the zoning, or, if unzoned, the existing use or use contemplated under a comprehensive plan, is predominantly commercial, transportation, or industrial:

70 dBA between 7:00 a.m. and 7:00 p.m.
(the "daytime hourly limit"), and
60 dBA between 7:00 p.m. and 7:00 a.m.
(the 'nighttime hourly limit').

(iv) For the purpose of determining whether the use of an unzoned area is predominantly commercial, transportation, or industrial (e.g. non-residential in nature), the Department shall consider the municipality's comprehensive plan, if any. Furthermore, the usage of properties abutting each protected location shall be determined, and the limits applied for that protected location shall be based upon the usage occurring along the greater portion of the perimeter of that parcel; in the event the portions of the perimeter are equal in usage, the limits applied for that protected location shall be those for a protected location in an area for which the use is not predominantly commercial, transportation, or industrial.

(v) When a proposed development is to be located in an area where the daytime pre-development ambient hourly sound level at a protected location is equal to or less than 45 dBA and/or the nighttime pre-development ambient hourly sound level at a protected location is equal to or less than 35 dBA, the hourly sound levels resulting from routine operation of the development and measured in accordance with the measurement procedures described in subsection H shall not exceed the following limits at that protected location:

55 dBA between 7:00 a.m. and 7:00 p.m.
(the "daytime hourly limit"), and
45 dBA between 7:00 p.m. and 7:00 a.m.
(the "nighttime hourly limit").

For the purpose of determining whether a protected location has a daytime or nighttime pre-development ambient hourly sound level equal to or less than 45 dBA or 35 dBA, respectively, the developer may make sound level measurements in accordance with the procedures in subsection H or may estimate the sound-level based upon the population density and proximity to local highways. If the resident population within a circle of 3,000 feet radius around a protected location is greater than 300 persons, or the hourly sound level from highway traffic at a protected location is predicted to be greater than 45 dBA in the daytime or 35 dBA at night (as appropriate for the anticipated operating schedule of the development), then the developer may ,estimate the daytime or nighttime pre-development ambient hourly sound level to be greater than 45 dBA or 35 dBA, respectively.

NOTE: Highway traffic noise can be predicted using the nomograph method of FHWA Highway Traffic Noise Prediction Model, FHWA-RD-77-108, December, 1978.

(vi) Notwithstanding the above, the developer need not measure or estimate the pre-development ambient hourly sound levels at a protected location if he demonstrates, by estimate or example, that the hourly sound levels resulting from routine operation of the development will not exceed 50 dBA in the daytime or 40 dBA at night.

(b) If the developer chooses to demonstrate by measurement that the daytime and/or nighttime pre-development ambient sound environment at any protected location near the development site exceeds the daytime and/or nighttime limits in subsection 1(a)(ii) or

1(a)(iii) by at least 5 dBA, then the daytime and/or nighttime limits shall be 5 dBA less than the measured daytime and/or nighttime pre-development ambient hourly sound level at the location of the measurement for the corresponding time period.

(c) For any protected location near an existing development, the hourly sound level limit for routine operation of the existing development and all future expansions of that development shall be the applicable hourly sound level limit of 1(a) or 1(b) above, or, at the developer's election, the existing hourly sound level from routine operation of the existing development plus 3 dBA.

(d) For the purposes of determining compliance with the above sound level limits, 5 dBA shall be added to the observed levels of any tonal sounds that result from routine operation of the development.

(e) When routine operation of a development produces short duration repetitive sound, the following limits shall apply:

(i) For short duration repetitive sounds, 5 dBA shall be added to the observed levels of the short duration repetitive sounds that result from routine operation of the development for the purposes of determining compliance with the above sound level limits.

(ii) For short duration repetitive sounds resulting from scrap metal, drop forge and metal fabrication operations or developments which the Department ~~Board~~ determines, due to their character and/or duration, are particularly annoying or pose a threat to the health and welfare of nearby neighbors, 5 dBA shall be added to the observed levels of the short duration repetitive sounds that result from routine operation of the development for the purposes of determining compliance with the above sound level limits, and the maximum sound level of the short duration repetitive sounds shall not exceed the following limits:

(a) At any protected location in an area for which the zoning, or, if unzoned, the existing use or use contemplated under a comprehensive plan, is not predominantly commercial, transportation, or industrial:

65 dBA between 7:00 a.m. and 7:00 p.m., and
55 dBA between 7:00 p.m. and 7:00 a.m.

(b) At any protected location in an area for which the zoning, or, if unzoned, the existing use or use contemplated under a comprehensive plan, is predominantly commercial, transportation, or industrial:

75 dBA between 7:00 a.m. and 7:00 p.m., and
65 dBA between 7:00 p.m. and 7:00 a.m.

(c) The methodology described in subsection 1(a)(iv) shall be used to determine whether the use of an unzoned area is predominantly commercial, transportation, or industrial.

(d) If the developer chooses to demonstrate by measurement that the pre-development ambient hourly sound level at any protected location near the development site exceeds 60 dBA between 7:00 a.m. and 7:00 p.m., and/or 50 dBA between 7:00 p.m. and 7:00 a.m., then the maximum sound level limit for short duration repetitive sound shall be 5 dBA greater than the measured pre-development ambient hourly sound level at the location of the measurement for the corresponding time period.

(e) For any protected location near an existing development, the maximum sound level limit for short duration repetitive sound resulting from routine operation of the existing development and all future expansions and modifications of that development shall be the applicable maximum sound level limit of (e)(ii)(a) or (e)(ii)(b) above, or, at the developer's election, the existing maximum sound level of the short duration repetitive sound resulting from routine operation of the existing development plus 3 dBA.

NOTE: The maximum sound level of the short duration repetitive sound shall be measured using the fast response [L_{AFmax}]. See the definition of maximum sound level.

(2) **Sound From Construction of Developments**

(a) The sound from construction activities between 7:00 p.m. and 7:00 a.m. is subject to the following limits:

(i) Sound from nighttime construction activities shall be subject to the nighttime routine operation sound level limits contained in subsections 1(a) and 1(b).

(ii) If construction activities are conducted concurrently with routine operation, then the combined total of construction and routine operation sound shall be subject to the nighttime routine operation sound level limits contained in subsections 1(a) and 1(b).

(iii) Higher levels of nighttime construction sound are permitted when a duly issued permit authorizing nighttime construction sound in excess of these limits has been granted by:

1. the local municipality when the duration of the nighttime construction activity is less than or equal to 90 days,

2. the local municipality and the Department ~~Board~~ when the duration of the nighttime construction activity is greater than 90 days.

(b) Sound from construction activities between 7:00 a.m. and 7:00 p.m. shall not exceed the following limits at any protected location:

Duration of Activity	**Hourly Sound Level Limit**
12 hours	87 dBA
8 hours	90 dBA
6 hours	92 dBA

4 hours	95 dBA
3 hours	97 dBA
2 hours	100 dBA
1 hour or less	105 dBA

(c) All equipment used in construction on development sites shall comply with applicable federal noise regulations and shall include environmental noise control devices in proper working condition, as originally provided with the equipment by its manufacturer.

(3) **Sound From Maintenance Activities**

(a) Sound from routine, ongoing maintenance activities shall be considered part of the routine operation of the development and the combined total of the routine maintenance and operation sound shall be subject to the routine operation sound level limits contained in subsection 1.

(b) Sound from occasional, major, scheduled overhaul activities shall be subject to the construction sound level limits contained in subsection 2. If overhaul activities are conducted concurrently with routine operation and/or construction activities, the combined total of the overhaul, routine operation and construction sound shall be subject to the construction sound level limits contained in subsection 2.

(4) **Sound From Production Blasting**

Sound exceeding the limits of subsection 1 and resulting from production blasting at a mine or quarry shall be limited as follows:

(a) Blasting shall not occur in the period between sundown and sunrise the following day or in the period between the hours of 7:00 p.m. and 7:00 a.m., whichever is greater. In addition, no routine production blasting shall be allowed in the daytime on Sundays.

(b) Blasting shall not occur more frequently than four times per day.

(c) Sound from blasting shall not exceed the following limits at any protected location:

Number of Blasts Per Day	**Sound Level Limit**
1	129 dBL
2	126 dBL
3	124 dBL
4	123 dBL.

Blast sound shall be measured in peak linear sound level (dBL) with a linear response down to 5 Hz.

NOTE: See Bureau of Mines Report of Investigations 8485 for information on airblast sound levels and pertinent scaled distances.

(5) **Exemptions**

Sound associated with the following shall be exempt from regulation by the Department ~~Board~~:

(a) Railroad equipment which is subject to federal noise regulations.

(b) Aircraft operations which are subject to federal noise regulations.

(c) Registered and inspected vehicles:

(i) while operating on public ways, or

(ii) which enter the development to make a delivery or pickup and which are moving, starting or stopping, but not when they are parked for over 60 minutes in the development.

(d) Watercraft while underway.

(e) Residential developments, except during construction of such developments.

(f) Bells, chimes and carillons.

(g) occasional sporting, cultural, religious or public events allowed by the local municipality where the only affected protected locations are contained within that municipality.

(h) The unamplified human voice and other sounds of natural origin.

(i) Firming, fishing and aquacultural activity.

(j) Forest management, harvesting and transportation activities.

(k) Making, maintaining and grooming snow where the only affected protected locations are contained within the general boundaries of a ski area development.

(1) Snow removal, landscaping and street sweeping activities.

(m) Emergency maintenance and repairs.

(n) Warning signals and alarms.

(o) Safety and protective devices installed in accordance with code requirements.

(p) Test operations of emergency equipment occurring in the daytime and no more frequently than once per week.

(q) Boiler start-up, testing and maintenance operations occurring no more frequently than once per month.

(r) Major concrete pours that must extend after 7:00 p.m., when started before 3:00 p.m.

(s) Sounds from a regulated development received at a protected location when the generator of the sound has been conveyed a noise easement for that location. This exemption shall only be for the specific noise, land and term covered by the easement.

(t) A force majeure event and other causes not reasonably within the control of the owners or operators of the development.

(6) **Noise Abatement Structures**

Noise abatement structures of a non-permanent nature in any one location for a duration of less than one year and erected for the sole purpose of noise control shall not be considered structures as defined in 38 MRSA subsection 482(6).

D. Submissions

(1) **Developments with Minor Sound Impact**

An applicant for a proposed development with minor sound impact may choose to file as part of the site location application a statement attesting to the minor nature of the anticipated sound impact of their development. An applicant proposing an expansion or modification of an existing development with minor sound impact may follow the same procedure as described above. For the purpose of this regulation, a development or an expansion or modification of an existing development with minor sound impact means a development where the developer demonstrates, by estimate or example, that the regulated sound from routine operation of the development will not exceed 5 dBA less than the applicable limits established under subsection C. It is the intent of this subsection that an applicant need not conduct sound level measurements to demonstrate that the development or an expansion or modification of an existing development will have a minor sound impact.

NOTE: Examples include subdivisions without structures, office buildings, storage buildings which will not normally be accessed at night, and golf courses.

(2) **Other Developments**

Technical information shall be submitted describing the applicant's plan and intent to make adequate provision for the control of sound. The applicant's plan shall contain information such as the following, when appropriate:

(a) Maps and descriptions of the land uses, local zoning and comprehensive plans for the area potentially affected by sounds from the development.

(b) A description of major sound sources, including tonal sound sources and sources of short duration repetitive sounds, associated with the construction, operation and maintenance of the proposed development, including their locations within the proposed development.

(c) A description of the daytime and nighttime hourly sound levels and, for short duration repetitive sounds, the maximum sound levels expected to be produced by these sound sources at protected locations near the proposed development.

(d) A description of the protected locations near the proposed development.

(e) A description of proposed major sound control measures, including their locations and expected performance.

(f) A comparison of the expected sound levels from the proposed development with the sound level limits of this regulation.

(g) A comparison of the expected sound levels from the proposed development with any quantifiable noise standards of the municipality in which the proposed development will be located and of any municipality which may be affected by the noise.

E. Terms and Conditions

The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that the developer has made adequate provision for the control of noise from the development and to reduce the impact of noise on protected locations. Such conditions may include, but are not limited to, enclosing equipment or operations, imposing limits on hours of operation, or requiring the employment of specific design technologies, site design, modes of operation, or traffic patterns.

The sound level limits prescribed in this regulation shall not preclude the Department ~~Board~~ under Chapter 375.15 from requiring a developer to demonstrate that sound levels from a development will not unreasonably disturb wildlife or adversely affect wildlife populations. In addition, the sound level limits shall not preclude the Department ~~Board~~, as a term or condition of approval, from requiring that lower sound level limits be met to ensure that the developer has made adequate provision for the protection of wildlife.

F. Variance From Sound Level Limits

The Department ~~Board~~ recognizes that there are certain developments or activities associated with development for which noise control measures are not reasonably available. Therefore, the Department ~~Board or Commissioner~~ may grant a variance from any of the sound level limits contained in this rule upon (1) a showing by the applicant that he or she has made a comprehensive assessment of the available technologies for the development and that the sound level limits cannot practicably be met with any of these available technologies, and (2) a finding by the Department ~~Board~~ that the proposed development will not have an unreasonable impact on protected locations. In addition, a variance may be granted by the Department ~~Board or Commissioner~~ if (1) a development is deemed necessary in the interest of national defense or public safety and the applicant has shown that the sound level limits cannot practicably be met without unduly limiting the development's intended function, and (2) a finding is made by the Department ~~Board or Commissioner~~ that the proposed development will not have an unreasonable impact on protected locations. The Department ~~Board or Commissioner~~ shall consider the request for a variance as part of the review of a completed Site Location of Development Law application. In granting a variance, the Department ~~Board or Commissioner~~ may, as a condition of approval, impose terms and conditions to ensure that no unreasonable sound impacts will occur.

G. Definitions

Terms used herein are defined below for the purpose of this noise regulation.

(1) **AMBIENT SOUND**: At a specified time, the all-encompassing sound associated with a given environment, being usually a composite of sounds from many sources at many directions, near and far, including the specific development of interest.

(2) **CONSTRUCTION**: Activity and operations associated with the development or expansion of a project or its site.

(3) **EMERGENCY**: An unforeseen combination of circumstances which calls for immediate action.

(4) **EMERGENCY MAINTENANCE AND REPAIRS**: Work done in response to an emergency.

(5) **ENERGY SUM OF A SERIES OF LEVELS**: Ten times the logarithm of the arithmetic sum of the antilogarithms of one-tenth of the levels. [Note: See Section H(4.2).]

(6) **EXISTING DEVELOPMENT**: A development constructed before 1-1-70 or a development approved under the Site Law prior to the effective date of this regulation or a proposed development for which the site location application is complete for processing on or before the effective date of this regulation. Any development with a site location approval which has been remanded to the Department ~~Board~~ by a court of competent jurisdiction for further proceedings relating to noise limits or noise levels prior to the effective date of these regulations shall not be deemed an existing development and these regulations shall apply to the existing noise sources at that development.

(7) **EXISTING HOURLY SOUND LEVEL**: The hourly sound level resulting from routine operation of an existing development prior to the first expansion that is subject to this regulation.

(8) **EQUIVALENT SOUND LEVEL**: The level of the mean-square A-weighted sound pressure during a stated time period, or equivalently the level of the sound exposure during a stated time period divided by the duration of the period.

NOTE: For convenience, a one hour equivalent sound level should begin approximately on the hour.

(9) **HISTORIC AREAS**: Historic sites administered by the Bureau of Parks and Recreation of the Maine Department of Conservation, with the exception of the Arnold Trail.

(10) **HOURLY SOUND LEVEL**: The equivalent sound level for one hour measured or computed in accordance with this regulation.

(11) **LOCALLY-DESIGNATED PASSIVE RECREATION AREA**: Any site or area designated by a municipality for passive recreation that is open and maintained for public use and which:

(a) has fixed boundaries,

(b) is owned in fee simple by a municipality or is accessible by virtue of public easement,

(c) is identified and described in a local comprehensive plan, and

(d) has been identified and designated at least nine months prior to the filing of the applicant's Site Location of Development application.

(12) **MAXIMUM SOUND LEVEL**: Ten times the common logarithm of the square of the ratio of the maximum sound to the reference sound of 20 micropascals. Symbol: L_{AFmax}.

(13) **MAXIMUM SOUND**: Largest A-weighted and fast exponential-time-weighted sound during a specified time interval. Unit: pascal (Pa).

(14) **RESIDENCE**: A building or structure, including manufactured housing, maintained for permanent or seasonal residential occupancy providing living, cooking and sleeping facilities and having permanent indoor or outdoor sanitary facilities, excluding recreational vehicles, tents and watercraft.

(15) **PRE-DEVELOPMENT AMBIENT**: The ambient sound at a specified location in the vicinity of a development site prior to the construction and operation of the proposed development or expansion.

(16) **PROTECTED LOCATION**: Any location, accessible by foot, on a parcel of land containing a residence or planned residence or approved residential subdivision, house of

worship, academic school, college, library, duly licensed hospital or nursing home near the development site at the time a Site Location of Development application is submitted; or any location within a State Park, Baxter State Park, National Park, Historic Area, a nature preserve owned by the Maine or National Audubon Society or the Maine Chapter of the Nature Conservancy, The Appalachian Trail, the Moosehorn National Wildlife Refuge, federally-designated wilderness area, state wilderness area designated by statute (such as the Allagash Wilderness Waterway), or locally-designated passive recreation area; or any location within consolidated public reserve lands designated by rule by the Bureau of Public Lands as a protected location.

At protected locations more than 500 feet from living and sleeping quarters within the above noted buildings or areas, the daytime hourly sound level limits shall apply regardless of the time of day.

Houses of worship, academic schools, libraries, State and National Parks without camping areas, Historic Areas, nature preserves, the Moosehorn National Wildlife Refuge, federally-designated wilderness areas without camping areas, state wilderness areas designated by statute without camping areas, and locally-designated passive recreation areas without camping areas are considered protected locations only during their regular hours of operation and the daytime hourly sound level limits shall apply regardless of the time of day.

Transient living accommodations are generally not considered protected locations; however, in certain special situations where it is determined by the Department ~~Board~~ that the health and welfare of the guests and/or the economic viability of the establishment will be unreasonably impacted, the Department ~~Board~~ may designate certain hotels, motels, campsites and duly licensed campgrounds as protected locations.

This term does not include buildings and structures located on leased camp lots, owned by the applicant, used for seasonal purposes.

For purposes of this definition, (1) a residence is considered planned when the owner of the parcel of land on which the residence is to be located has received all applicable building and land use permits and the time for beginning construction under such permits has not expired, and (2) a residential subdivision is considered approved when the developer has received all applicable land use permits for the subdivision and the time for beginning construction under such permits has not expired.

(17) **QUANTIFIABLE NOISE STANDARD**: A numerical limit governing noise from developments that has been duly enacted by ordinance by a local municipality.

(18) **ROUTINE OPERATION**: Regular and recurrent operation of regulated sound sources associated with the purpose of the development and operating on the development site.

(19) **SHORT DURATION REPETITIVE SOUNDS**: A sequence of repetitive sounds which occur more than once within an hour, each clearly discernible as an event and causing an increase in the sound level of at least 6 dBA on the fast meter response above the sound level observed immediately before and after the event, each typically less than ten seconds in

duration, and which are inherent to the process or operation of the development and are foreseeable.

(20) **SOUND COMPONENT**: The measurable sound from an audibly identifiable source or group of sources.

(21) **SOUND LEVEL**: Ten times the common logarithm of the square of the ratio of the frequency-weighted and time-exponentially averaged sound pressure to the reference sound of 20 micropascals. For the purpose of this regulation, sound level measurements are obtained using the A-weighted frequency response and fast dynamic response of the measuring system, unless otherwise noted.

(22) **SOUND PRESSURE**: Root-mean-square of the instantaneous sound pressures in a stated frequency band and during a specified time interval. Unit: pascal (Pa).

(23) **SOUND PRESSURE LEVEL**: Ten times the common logarithm of the square of the ratio of the sound pressure to the reference sound pressure of 20 micropascals.

(24) **TONAL SOUND**: for the purpose of this regulation, a tonal sound exists if, at a protected location, the one-third octave band sound pressure level in the band containing the tonal sound exceeds the arithmetic average of the sound pressure levels of the two contiguous one-third octave bands by 5 dB for center frequencies at or between 500 Hz and 10,000 Hz, by 8 dB for center frequencies at or between 160 and 400 Hz, and by 15 dB for center frequencies at or between 25 Hz and 125 Hz.

Additional acoustical terms used in work associated with this regulation shall be used in accordance with the following American National Standards Institute (ANSI) standards:

ANSI S12.9-1988 - American National Standard Quantities and Procedures for Description and Measurements of Environmental Sound, Part 1;

ANSI S3.20-1973 - American National Standard Psychoacoustical Terminology;

ANSI S1.1-1960 - American National Standard Acoustical Terminology.

H. Measurement Procedures

(1) **Scope**. These procedures specify measurement criteria and methodology for use, with applications, compliance testing and enforcement. They provide methods for measuring the ambient sound and the sound from routine operation of the development, and define the information to be reported. The same methods shall be used for measuring the sound of construction, maintenance and production blasting activities. For measurement of the sound of production blasting activities for comparison with the limits of subsection C(4)(c), these same methods shall be used with the substitution of the linear sound level for the A-weighted sound level.

(2) **Measurement Criteria**

2.1 **Measurement Personnel**

Measurements shall be supervised by personnel who are well qualified by training and experience in measurement and evaluation of environmental sound, or by personnel trained to operate under a specific measurement plan approved by the Department ~~Board or Commissioner~~.

2.2 **Measurement Instrumentation**

(a) A sound level meter or alternative sound level measurement system used shall meet all of the Type 1 or 2 performance requirements of American National Standard Specifications for Sound Level Meters, ANSI S1.4-1983.

(b) An integrating sound level meter (or measurement system) shall also meet the Type 1 or 2 performance requirements for integrating/averaging in the International Electrotechnical Commission Standard on Integrating-Averaging Sound Level Meters, IEC Publication 804 (1985).

(c) A filter for determining the existence of tonal sounds shall meet all the requirements of-American National Standard Specification for Octave-Band and Fractional Octave-Band Analog and Digital Filters, ANSI S1.11-1986 for Order 3, Type 3-D performance.

(d) An acoustical calibrator shall be used of a type recommended by the manufacturer of the sound level meter and that meets the requirements of American National Standard Specification for Acoustical Calibrators, ANSI S1.40-1984.

(e) A microphone windscreen shall be used of a type recommended by the manufacturer of the sound level meter.

2.3 **Calibration**

(a) The sound level meter shall have been calibrated by a laboratory within 12 months of the measurement, and the microphone's response shall be traceable to the National Bureau of Standards.

(b) Field calibrations shall be recorded before and after each measurement period and at shorter intervals if recommended by the manufacturer.

2.4 **Measurement Location, Configuration and Environment**

(a) Except as noted in subsection (b) below, measurement locations shall be at nearby protected locations that are most likely affected by the sound from routine operation of the development.

(b) For determining compliance with the 75 dBA property line hourly sound level limit described in subsection C(l)(a)(i), measurement locations shall be selected at the property lines of the proposed development or contiguous property owned by the developer, as appropriate.

(c) The microphone shall be positioned at a height of approximately 4 to 5 feet above the ground, and oriented in accordance with the manufacturer's recommendations.

(d) Measurement locations should be selected so that no vertical reflective surface exceeding the microphone height is located within 30 feet. When this is not possible, the measurement location may be closer than 30 feet to the reflective surface, but under no circumstances shall it be closer than 6 feet.

(e) When possible, measurement locations should be at least 50 feet from any regulated sound source on the development.

(f) Measurement periods shall be avoided when the local wind speed exceeds 12 mph and/or precipitation would affect the measurement results.

2.5 **Measurement Plans.** Plans for measurement of pre-development ambient sound or post-development sound may be discussed with the Department staff.

(3) **Measurement of Ambient Sound**

3.1 **Pre-Development Ambient Sound**

Measurements of the pre-development ambient sound are required only when the developer elects to establish the sound level limit in accordance with subsections C(1)(b) and C(1)(e)(ii)(d) for a development in an area with high ambient sound levels, such as near highways, airports, or pre-existing developments; or when the developer elects to establish that the daytime and nighttime ambient hourly sound levels at representative protected locations exceed 45 dBA and 35 dBA, respectively.

(a) Measurements shall be made at representative protected locations for periods of time sufficient to adequately characterize the ambient sound. At a minimum, measurements shall be made on three different weekdays (Monday through Friday) during all hours that the development will operate. If the proposed development will operate on Saturdays and/or Sundays, measurements shall also be made during all hours that the development will operate.

(b) Measurement periods with particularly high ambient sounds, such as during holiday traffic activity, significant insect activity or high coastline waves, should generally be avoided.

(c) At any measurement location the daytime and nighttime ambient hourly sound level shall be computed by arithmetically averaging the daytime and nighttime values of the measured one hour equivalent sound levels. Multiple values, if they

exist, for any specific hour on any specific day shall first be averaged before the computation described above.

3.2 **Post-Development Ambient Sound**

(a) Measurements of the post-development ambient one hour equivalent sound levels and, if short duration repetitive sounds are produced by the development, the maximum sound levels made at nearby protected locations and during representative routine operation of the development that are not greater than the applicable limits of subsection C clearly indicate compliance with those limits.

(b) Compliance with the limits of subsection C(l)(b) may also be demonstrated by showing that the post-development ambient hourly sound level, measured in accordance with the procedures of subsection 3.1 above during routine operation of the development, does not exceed the pre-development ambient hourly sound level by more than one decibel, and that the sound from routine operation of the development is not characterized by either tonal sounds or short duration repetitive sounds.

(c) Compliance with the limits of subsection C(1)(e)(ii)(d) may also be demonstrated by showing that the post development maximum sound level of any short duration repetitive sound, measured in accordance with the procedures of subsection 3.1 above, during routine operation of the development, does not exceed the pre-development ambient hourly sound level by more than five decibels.

(d) If any of the conditions in (a), (b) or (c) above are not met, compliance with respect to the applicable limits must be determined by measuring the sound from routine operation of the development in accordance with the procedures described in subsection 4.

(4) **Measurement of the Sound from Routine Operation of Developments.**

4.1 **General**

(a) Measurements of the sound from routine operation of developments are generally necessary only for specific compliance testing purposes in the event that community complaints result from operation of the development, for validation of an applicant's calculated sound levels when requested by the Department ~~Board or Commissioner~~, for determination of existing hourly sound levels for an existing development or for enforcement by the Department.

(b) Measurements shall be obtained during representative weather conditions when the development sound is most clearly noticeable. Preferable weather conditions for sound measurements at distances greater than about 500 feet from the sound source include overcast days when the measurement location is downwind of the development and inversion periods (which most commonly occur at night).

(c) Measurements of the development sound shall be made so as to exclude the contribution of sound from development equipment that is exempt from this regulation.

4.2 **Measurement of the Sound Levels Resulting from Routine Operation of the Development**

(a) When the ambient sound levels are greater than the sound level limits, additional measurements can be used to determine the hourly sound level that results from routine operation of the development. These additional measurements may include diagnostic measurements such as measurements made close to the development and extrapolated to the protected location, special checkmark measurement techniques that include the separate identification of audible sound sources, or the use of sound level meters with pause capabilities that allow the operator to exclude non-development sounds.

(b) For the purposes of computing the hourly sound level resulting from routine operation of the development, sample diagnostic measurements may be made to obtain the one hour equivalent sound levels for each sound component.

(c) Identification of tonal sounds produced by the routine operation of a development for the purpose of adding the 5 dBA penalty in accordance with subsection C(l)(d) requires aural perception by the measurer, followed by use of one-third octave band spectrum analysis instrumentation. If one or more of the sounds of routine operation of the development are found to be tonal sounds, the hourly sound level component for tonal sounds shall be computed by adding 5 dBA to the one hour equivalent sound level for those sounds.

(d) Identification of short duration repetitive sounds produced by routine operation of a development requires careful observations. For the sound to be classified as short duration repetitive sound, the source(s) must be inherent to the process or operation of the development and not the result of an unforeseeable occurrence. If one or more of the sounds of routine operation of the development are found to be short duration repetitive sounds, the hourly sound level component for short duration repetitive sounds shall be computed by adding 5 dBA to the one hour equivalent sound level for those sounds. If required, the maximum sound levels of short duration repetitive sounds shall be measured using the fast response [L_{AFmax}]. The duration and the frequency of occurrence of the events shall also be measured. In some cases, the sound exposure levels of the events may be measured. The one hour equivalent sound level of a short duration repetitive sound may be determined from measurements of the maximum sound level during the events, the duration and frequency of occurrence of the events, and their sound exposure levels.

(e) The daytime or nighttime hourly sound level resulting from routine operation of a development is the energy sum of the hourly sound level components from the development, including appropriate penalties, (see (c) and (d) above). If the energy sum does not exceed the appropriate daytime or nighttime sound level

limit, then the development is in compliance with that sound level limit at that protected location.

(5) **Reporting Sound Measurement Data**. The sound measurement data report should include the following:

(a) The dates, days of the week and hours of the day when measurements were made.

(b) The wind direction and speed, temperature, humidity and sky condition.

(c) Identification of all measurement equipment by make, model and serial number.

(d) The most recent dates of laboratory calibration of sound level measuring equipment.

(e) The dates, times and results of all field calibrations during the measurements.

(f) The applicable sound level limits, together with the appropriate hourly sound levels and the measurement data from which they were computed, including data relevant to either tonal or short duration repetitive sounds.

(g) A sketch of the site, not necessarily to scale, orienting the development, the measurement locations, topographic features and relevant distances, and containing sufficient information for another investigator to repeat the measurements under similar conditions.

(h) A description of the sound from the development and the existing environment by character and location.

I. Sound Level Standards for Wind Energy Developments

(1) Applicability

This subsection applies to grid-scale wind energy developments as defined by 35-A M.R.S.A. § 3451(6) and small-scale wind energy developments governed by 35-A M.R.S.A. §3456, hereinafter referred to as "wind energy developments." The provisions in Section 10(C)(1), 10(D)(2), 10(F), and 10(H) of this Rule do not apply to wind energy developments.

(2) Sound Level Limits for Routine Operation of Wind Energy Developments

The sound levels resulting from routine operation of a wind energy development measured in accordance with the measurement procedures described in subsection I(8) shall not exceed the following limits:

(a) 75 dBA at any time of day at any property line of the wind energy development or contiguous property owned or controlled by the wind energy developer, whichever is farther from the proposed wind energy development's regulated sound sources; and

(b) 55 dBA between 7:00 a.m. and 7:00 p.m. (the "daytime limit"), and 42 dBA between 7:00 p.m. and 7:00 a.m. (the "nighttime limit") at any protected location.

(3) **Tonal Sounds**

For the purposes of this subsection, a tonal sound exists if, at a protected location, the 10 minute equivalent average one-third octave band sound pressure level in the band containing the tonal sound exceeds the arithmetic average of the sound pressure levels of the two contiguous one-third octave bands by 5 dB for center frequencies at or between 500 Hz and 10,000 Hz, by 8 dB for center frequencies at or between 160 and 400 Hz, and by 15 dB for center frequencies at or between 25 Hz and 125 Hz. 5 dBA shall be added to any average 10 minute sound level ($Leq_{A\ 10\text{-}min}$) for which a tonal sound occurs that results from routine operation of the wind energy development.

(4) **Short Duration Repetitive Sounds ("SDRS")**

For the purposes of this subsection SDRS is defined as a sequence of repetitive sounds that occur within a 10-minute measurement interval, each clearly discernible as an event resulting from the development and causing an increase in the sound level of 5 dBA or greater on the fast meter response above the sound level observed immediately before and after the event, each typically ±1 second in duration, and which are inherent to the process or operation of the development.

(a) When routine operation of a wind energy development produces short duration repetitive sound, a 5 dBA penalty shall be arithmetically added to each average 10-minute sound level ($Leq_{A\ 10\text{-}min}$) measurement interval in which greater than 5 SDRS events are present.

(5) **Compliance with the Sound Level Limits**

A wind energy development shall determine compliance with the sound level limits as set forth in subsection I(2) of this rule in accordance with the following:

(a) Sound level data shall be aggregated in 10-minute measurement intervals within a given compliance measurement period (daytime: 7:00 am to 7:00 pm or nighttime: 7:00 pm to 7:00 am) under the conditions set forth in subsection I(8) of this rule.

(b) Compliance will be demonstrated when the arithmetic average of the sound level of, at a minimum, twelve, 10-minute measurement intervals in a given compliance measurement period is less than or equal to the sound level limit set forth in subsection I(2).

(c) Alternatively, if a given compliance measurement period does not produce a minimum of twelve, 10-minute measurement intervals under the atmospheric and site conditions set forth in subsection I(8) of this rule, the wind energy development may combine six or more contiguous 10-minute measurement

intervals from one 12 hour (7:00 am to 7:00 pm daytime or 7:00 pm to 7:00 am nighttime) compliance measurement period with six or more contiguous 10-minute intervals from another compliance measurement period. Compliance will be demonstrated when the arithmetic average of the combined 10-minute measurement intervals is less than or equal to the sound level limit set forth in subsection I(2).

(6) **Variance from Sound Level Limits**

A variance may be granted by the Department if: (1) a development is deemed necessary in the interest of national defense or public safety and the applicant has shown that the sound level limits cannot practicably be met without unduly limiting the development's intended function, and (2) a finding is made by the Department that the proposed development will not have an unreasonable impact on protected locations. The Department shall consider the request for a variance as part of the review of a completed Site Location of Development Law application or a request for certification for a small-scale wind energy development. In granting a variance, the Department may, as a condition of approval, impose terms and conditions to ensure that no unreasonable sound impacts will occur.

(7) **Submissions**

Technical information shall be submitted describing the wind energy developer's plan and intent to make adequate provision for the control of sound. The wind energy developer's plan shall contain the following:

(a) A map depicting the location of all proposed sound sources associated with the wind energy development, property boundaries for the proposed wind energy development, property boundaries of all adjacent properties within one mile of the proposed wind energy development, and the location of all protected locations located within one mile of the proposed wind energy development;

(b) A description of the major sound sources, including tonal sound sources and sources of short duration repetitive sounds, associated with the construction, operation and maintenance of the proposed wind energy development;

(c) A description of the equivalent noise levels expected to be produced by the sound sources at protected locations located within one mile of the proposed wind energy development. The description shall include a full-page isopleths map depicting the modeled decay rate of the predicted sound pressure levels expected to be produced by the wind energy development at each clearly identified protected location within one mile of the proposed wind energy development. The predictive model used to generate the equivalent noise levels expected to be produced by the sound sources shall be designed to represent the "predictable worst case" impact on adjacent properties and shall include, at a minimum, the following:

1. The maximum rated sound power output (IEC 61400-11) of the sound sources operating during nighttime stable atmospheric conditions with high wind shear

above the boundary layer and consideration of other conditions that may affect in-flow airstream turbulence;

2. Attenuation due to geometric spreading, assuming that each turbine is modeled as a point source at hub height;

3. Attenuation due to air absorption;

4. Attenuation due to ground absorption/reflection;

5. Attenuation due to three dimensional terrain;

6. Attenuation due to forestation;

7. Attenuation due to meteorological factors such as but not limited to relative wind speed and direction (wind rose data), temperature/vertical profiles and relative humidity, sky conditions, and atmospheric profiles;

8. Inclusion of an "uncertainty factor" adjustment to the maximum rated output of the sound sources based on the manufacturer's recommendation; and

9. Inclusion, at the discretion of the Department, of an addition to the maximum rated output of the sound sources to account for uncertainties in the modeling of sound propagation for wind energy developments. This discretionary uncertainty factor of up to 3 dBA may be required by the Department based on the following conditions: inland or coastal location, the extent and specificity of credible evidence of meteorological operating conditions, and the extent of evaluation and/or prior specific experience for the proposed wind turbines. Subject to the Department's discretion based on the information available, there is a rebuttable presumption of an uncertainty factor of 2 to 3 dBA for coastal developments and of 0 to 2 dBA for inland developments.

(d) A description of the protected locations near the proposed wind energy development.

(e) A description of proposed major sound control measures, including their locations and expected performance.

(f) A comparison of the expected sound levels from the proposed development with the sound level limits of this regulation.

(g) A comparison of the expected sound levels from the proposed development with any quantifiable noise standards of the municipality in which the proposed development will be located and of any municipality which may be affected by the noise.

(h) A description and map identifying one or more compliance testing locations on or near the proposed wind energy development site. The identified compliance

testing locations shall be selected to take advantage of prevailing downwind conditions and be able to meet the site selection criteria outlined in subsection I(8)(d)(2).

(i) A description of the compliance measurement protocol as required by subsection 8 below.

(j) A description of the complaint response protocol proposed for the wind energy development. The complaint response protocol shall adequately provide for, at a minimum:

1. A 24-hour contact for complaints;

2. A complaint log accessible by the Department;

3. For those complaints that include sufficient information to warrant an investigation, the protocol must provide for an analysis as set forth in (a) through (c) below. Sufficient information includes, at a minimum: the name and address of the complainant; the date, time and duration of the sound event; a description of the sound event, indoor or outdoor, specific location and a description of any audible sounds from other sources outside or inside the dwelling of the complainant. Analysis of the complaint by the licensee must include:

   (a) documentation of the location of the nearest turbines to the complaint location and ground conditions in the area of the complaint location;

   (b) weather conditions at the time of the complaint and surface and hub height wind speed and direction;

   (c) power output and direction of nearest turbines; and

   (d) notification of complaint findings to the Department and the complainant;

4. A plotting of complaint locations and key information on a project area map to evaluate complaints for a consistent pattern of site, operating and weather conditions; and

5. A comparison of these patterns to the compliance protocol to determine whether testing under additional site and operating conditions is necessary and, if so, a testing plan that addresses the locations and the conditions under which a pattern of complaints had occurred.

(8) **Measurement Procedures**

These procedures specify measurement criteria and methodology for use with wind energy development applications, compliance and complaint response. They provide methods for

measuring the sound from operation of the wind energy development and set forth the information to be reported.

(a) **Measurement Criteria**

1. **Measurement Personnel**

Measurements shall be supervised by personnel who are well qualified by training and experience in measurement and evaluation of environmental sound, or by personnel trained to operate under a specific measurement plan approved by the Department.

(b) **Measurement Instrumentation**

1. A sound level meter or alternative sound level measurement system used shall meet all of the Type 0 or 1 performance requirements of American National Standard Specifications for Sound Level Meters, ANSI S1.4.

2. An integrating sound level meter (or measurement system) shall also meet the Type 0 or 1 performance requirements for integrating/averaging in the International Electrotechnical Commission Standard on Integrating-Averaging Sound Level Meters, IEC Publication 61672-1 and ANSI 1.43.

3. A filter for determining the existence of tonal sounds shall meet all the requirements of the American National Standard Specification for Octave-Band and Fractional Octave-Band Analog and Digital Filters, ANSI S1.11 and IEC 61260, Type 3-D performance.

4. The acoustical calibrator used shall be of a type recommended by the manufacturer of the sound level meter and one that meets the requirements of American National Standard Specification for Acoustical Calibrators, ANSI S1.40.

5. The microphone windscreen used shall be of a type recommended by the manufacturer of the sound level meter.

6. Anemometer(s) used for surface (10 meter (m)) (32.8 feet) wind speeds shall have a minimum manufacturer specified accuracy of ±1 mph providing data in one second integrations and 10 min. average/maximum values for the evaluation of atmospheric stability.

7. Audio recording devices shall be time stamped (hh:mm:ss) and at a minimum 16 bit digital, recording the sound signal output from the measurement microphone at a minimum sampling rate of 24 thousand (k) samples per second to be used for identifying events. Audio recording and compliance data collection shall occur through the same microphone/sound meter and bear the same time stamp.

(c) **Equipment Calibration**

1. The sound level meter shall have been calibrated by a laboratory within 12 months of the measurement, and the microphone's response shall be traceable to the National Institute of Standards and Technology.

3. Field calibrations shall be recorded before and after each measurement period and at shorter intervals if recommended by the manufacturer.

4. Anemometer(s) and vane(s) shall be calibrated annually by the manufacturer to maintain stated specification.

(d) **Compliance Measurement Location, Configuration, and Environment**

1. Compliance measurement locations shall be at nearby protected locations that are most likely affected by the sound from routine operation of the wind energy development subject to permission from the respective property owner(s).

2. To the greatest extent possible, compliance measurement locations shall be at the center of unobstructed areas that are maintained free of vegetation and other structures or material that is greater than 2 feet in height for a 75-foot radius around the sound and audio monitoring equipment.

3. To the greatest extent possible, meteorological measurement locations shall be at the center of open flat terrain, inclusive of grass and a few isolated obstacles less than 6 feet in height for a 250-foot radius around the anemometer location. The meteorological data measurement location need not be coincident with the sound and audio measurement location provided there is no greater than a 5 mile separation between the data collection points and the measurement locations have similar characterization, i.e. same side of the mountain ridge, etc.

4. Meteorological measurements of wind speed and direction shall be collected using anemometers at a 10-meter height (32.8 feet) above the ground. Results shall be reported, based on 1-second integration intervals, and shall be reported synchronously with hub level and sound level measurements at 10-minute measurement intervals. The wind speed average and maximum shall be reported.

5. The sound microphone shall be positioned at a height of approximately 4 to 5 feet above the ground, and oriented in accordance with the manufacturer's recommendations.

6. When possible, measurement locations should be at least 50 feet from any sound source other than the wind energy development's power generating sources.

(e) **Compliance Data Collection, Measurement and Retention Procedures**

1. Measurements of operational, sound, audio and meteorological data shall occur as set forth in subsection I(8)(e)(7 through 10).

2. All operational, sound and meteorological data collected shall be retained by the wind energy development for a period of 1 year from the date of collection and is subject to inspection by the Department and submission to the Department upon request.

3. All audio data collected shall be retained by the wind energy development for a period of four weeks from the date of collection unless subject to a complaint filed in accordance with the complaint protocol approved by the Department and is subject to inspection by the Department and submission to the Department upon request. Specific audio data collected that coincides with a complaint filed in accordance with the approved complaint protocol shall be retained by the wind energy developer for a period of 1 year from the date of collection and is subject to inspection by the Department and submission to the Department upon request.

4. Written notification of the intent to collect compliance data must be received by the Department prior to the collection of any sound level data for compliance purposes. The notification shall state the date and time of the compliance measurement period.

   Note: Notice received via electronic mail is sufficient regardless of whether it is received during business hours.

5. Compliance data from the operation of a wind energy development shall be submitted to the Department, at a minimum:

   (a) Once during the first year of facility operation;

   (b) Once during each successive fifth year thereafter until the facility is decommissioned;

   (c) In response to a complaint regarding operation of the wind energy development as set forth in subsection I(7)(j) of the rule and any subsequent enforcement by the Department; and

   (d) For validation of an applicant's calculated sound levels when requested by the Department.

6. All sound level, audio and meteorological data collected during a compliance measurement period for which the Department has been notified that meets or exceeds the specified wind speed parameters shall be submitted to the Department for review and approval. All data submittals shall be submitted to the Department within 30 days of notification of intent to collect compliance data.

7. Measurement shall be obtained during weather conditions when the wind turbine sound is most clearly noticeable, generally when the measurement location is downwind of the wind energy development and maximum surface wind speeds < 6 miles per hour (mph) with concurrent turbine hub-elevation wind speeds sufficient to generate the maximum continuous rated sound power from the nearest wind turbines to the measurement location. A downwind location is defined as within 45^0 of the direction between a specific measurement location and the acoustic center of the five nearest wind turbines.

   [Note: These conditions typically occur during inversion periods usually between 11 pm and 5 am.]

8. In some circumstances, it may not be feasible to meet the wind speed and operations criteria due to terrain features or limited elevation change between the wind turbines and monitoring locations. In these cases, measurement periods are acceptable if the following conditions are met:

   (a) The difference between the L_{A90} and L_{A10} during any 10-minute period is less than 5 dBA; and

   (b) The surface wind speed (10 meter height) (32.8 feet) is 6 mph or less for 80% of the measurement period and does not exceed 10 mph at any time, or the turbines are shut down during the monitoring period and the difference in the observed L_{A50} after shut down is equal to or greater than 6 dBA; and

   (c) Observer logs or recorded sound files clearly indicate the dominance of wind turbine(s).

9. Measurement intervals affected by increased biological activities, leaf rustling, traffic, high water flow, aircraft flyovers or other extraneous ambient noise sources that affect the ability to demonstrate compliance shall be excluded from all compliance report data. The intent is to obtain 10-minute measurement intervals that entirely meet the specific criteria.

10. Measurements of the wind energy development sound shall be made so as to exclude the contribution of sound from other development equipment that is exempt from this regulation.

(f) **Reporting of Compliance Measurement Data**

Compliance Reports shall be submitted to the Department within 30 days of notification of intent to collect compliance data or upon request by the Department and shall include, at a minimum, the following:

1. A narrative description of the sound from the wind energy development for the compliance measurement period result;

2. The dates, days of the week and hours of the day when measurements were made;

3. The wind direction and speed, temperature, humidity and sky condition;

4. Identification of all measurement equipment by make, model and serial number;

5. All meteorological, sound, windscreen and audio instrumentation specifications and calibrations;

6. All A-weighted equivalent sound levels for each 10-minute measurement interval;

7. All L_{A10} and L_{A90} percentile levels;

8. All 10 minute 1/3 octave band linear equivalent sound levels (dB);

9. All short duration repetitive events characterized by event amplitude. Amplitude is defined as the peak event amplitude minus the average minima sound level immediately before and after the event, as measured at an interval of 50 milliseconds ("ms") or less, A-weighted and fast time response, i.e. 125 ms. For each 10-minute measurement interval short duration repetitive sound events shall be reported by number for each observed amplitude integer above 5 dBA.

10. Audio recording devices shall be time stamped (hh:mm:ss) and at a minimum 16 bit digital, recording the sound signal output from the measurement microphone at a minimum sampling rate of 24 thousand (k) samples per second to be used for identifying events. Audio recording and compliance data collection shall occur through the same microphone/sound meter and bear the same time stamp. Should any sound data collection be observed by a trained attendant, the attendant's notes and observations may be substituted for the audio files during the compliance measurement period;

11. All concurrent time stamped turbine operational data including the date, time and duration of any noise reduction operation or other interruptions in operations if present; and

12. All other information determined necessary by the Department.

11. Preservation of Historic Sites

A. Preamble. The Department ~~Board~~ recognizes the value to society of preserving sites of historic significance.

B. Definition. As used in this section, "historic site" means any site, structure, district or archaeological site which has been officially included on the National Register of Historic Places and/or on the Maine Historic Resource Inventory, or which is established by qualified testimony as being of historic significance.

C. Scope of Review. In determining whether a proposed development will have an adverse effect on the preservation of historic sites either on or near the development site, the Department ~~Board~~ shall consider all relevant evidence to that effect.

D. Terms and Conditions. The Department ~~Board~~, may as a term or condition of approval, establish any reasonable requirement to ensure that a proposed development will not adversely affect preservation of any historic site.

12. Preservation of Unusual Natural Areas

A. Preamble. The Department ~~Board~~ recognizes the importance of preserving unusual natural areas for educational and scientific purposes.

B. Definition. As used in this section, "unusual natural area" means any land or water area, usually only a few acres in size, which is undeveloped and which contains natural features of unusual geological, botanical, zoological, ecological, hydrological, other scientific, educational, scenic, or recreational significance. By way of illustration, and not limitation, such are, as may include: rare or exemplary plant communities; individual plant species of unusual interest because of size, species or other reasons; unusual or exemplary bogs; unusually important wildlife habitats, particularly those of rare or endangered species; unusual land forms; fossils and other deposits of importance to geologists; outstanding scenic areas; and others of similar character.

C. Scope of Review. In determining whether a proposed development will have an adverse effect on the preservation of unusual natural areas either on or near the development site, the Department ~~Board~~ shall consider all relevant evidence to that effect.

D. Terms and Conditions. The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that a proposed development will not adversely affect the preservation of natural areas.

13. Access to Direct Sunlight

A. Preamble. The Department ~~Board~~ recognizes that some existing structures utilize active or passive solar energy systems for purposes such as heating air or water, and that, in these instances, it may be an unreasonable effect on existing uses to deny access to direct sunlight.

B. Scope of Review. In determining whether a proposed development will have an adverse effect on access to direct sunlight, the Department ~~Board~~ shall consider all relevant evidence to that effect, such as evidence that:

(1) Structures within the proposed development will not block access to direct sunlight to structures utilizing solar energy through active or passive systems.

C. **Terms and Conditions**. The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that a proposed development will not block access to direct sunlight.

14. No Unreasonable Effect on Scenic Character

A. **Preamble**. The Department ~~Board~~ considers scenic character to be one of Maine's most important assets. The Department ~~Board~~ also feels that visual surroundings strongly influence people's behavior.

B. **Scope of Review**. In determining whether the proposed development will have an unreasonable adverse effect on the scenic character of the surrounding area, the Department ~~Board~~ shall consider all relevant evidence to that effect, such as evidence that:

(1) The design of the proposed development takes into account the scenic character of the surrounding area.

(2) A development which is not in keeping with the surrounding scenic character will be located, designed and landscaped to minimize its visual impact to the fullest extent possible.

(3) Structures will be designed and landscaped to minimize their visual impact on the surrounding area.

NOTE: The following are GUIDELINES for the landscaping of parking lots, which are structures pursuant to 38 M.R.S.A. Section 482(6) (B).

(a) Lighting will be shielded from adjacent highways and residential areas.

(b) Curbed planting strips will be utilized in parking areas of 2 acres or more. Planting strips will be a minimum of ten (10) feet wide and spaced between every second double bay parking aisle or 200 feet, whichever is less.

(c) When the parking lots are adjacent to a residential use, landscaping and/or architectural screens will be utilized to provide an effective perimeter separation area between property lines and the edge of the pavement and/or structures. There will be a minimum setback of fifteen (15) feet from the property line. The Department ~~Board~~ may require a similar provision when the parking lot is adjacent to other land uses.

(d) Planting and maintenance program specifications will be developed to provide the earliest establishment of landscape materials and their maintenance.

(e) Planting specifications:

(i) Shrubs will be planted with a 24" minimum size for those specified by spread.

(ii) Shrubs will be planted with a 36" minimum size for those specified by height.

(iii) Shade trees will be highcrowned species with ascending or lateral branching habit indigenous to the area, tolerant to existing soils and urbanized conditions, two-inch minimum caliper measured six inches up from the base, and planted a maximum of 30' on center.

(iv) Flowering and evergreen trees will be a minimum of 7' tall and planted a maximum of 20' on center.

(v) Selections for ground cover will reflect the project's function, expected foot traffic, exposure, and maintenance program.

(f) Provisions will be made to supply water to planted islands and other vegetated areas.

(4) The plans for the proposed development provide for the preservation of existing elements of the development site which contribute to the maintenance of scenic character.

C. Submissions. Applications for approval of proposed developments shall include evidence that affirmatively demonstrates that there will be no unreasonable adverse effect on the scenic character of the surrounding area, including information such as the following, when appropriate:

(1) Sketches of the proposed development indicating how the development fits into the scenic character of the area.

(2) Landscaping plans for minimizing the visual impact of the parking lots, mining operations and other types of developments.

D. Terms and Conditions. The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that the proposed development will have no unreasonable adverse effect on scenic character, such as requiring that:

(1) Illumination of the development be limited.

(2) Vegetative or architectural screens be established.

15. Protection of Wildlife and Fisheries

A. Preamble. The Department ~~Board~~ recognizes the need to protect wildlife and fisheries by maintaining suitable and sufficient habitat and the susceptibility of certain species to disruption and interference of lifecycles by construction activities.

B. Scope of Review. In determining whether the developer has made adequate provision for the protection of wildlife and fisheries, the Department ~~Board~~ shall consider all relevant evidence to that effect, such as evidence that:

(1) A buffer strip of sufficient area will be established to provide wildlife with travel lanes between areas of available habitat.

(2) Proposed alterations and activities will not adversely affect wildlife and fisheries lifecycles.

(3) There will be no unreasonable disturbance to:

(a) High and moderate value deer wintering areas.

(b) Habitat of any species declared threatened or endangered by the Commissioner, Maine Department of Inland Fisheries and Wildlife or the Director of the U.S. Fish and Wildlife Service.

(c) Seabird nesting islands;

(d) Significant vernal pools;

(e) High and moderate value waterfowl and wading bird habitat; and

(f) Shorebird nesting, feeding, and staging areas.

C. Submissions. Applications for approval of proposed developments shall include evidence that affirmatively demonstrates that the developer has made adequate provision for the protection of wildlife and fisheries, including information such as the following, when appropriate:

(1) The location of natural buffer strips and adequate provision for their maintenance.

(2) Plans to mitigate adverse effects on wildlife and fisheries through means that at a minimum include, but are not limited to, design considerations, pollution-abatement practices, the timing of construction activities, and on-site or off-site habitat improvements or preservation.

D. Terms and Conditions. The Department ~~Board~~ may, as a term or condition of approval, establish any reasonable requirement to ensure that a developer has made adequate provision for the protection of wildlife and fisheries.

16. Adequate Provision for Solid Waste Disposal

A. Standard. The applicant shall make adequate provision for solid waste disposal. All solid waste will be disposed of in a manner which ensures that:

(1) No unreasonable adverse effects on the natural environment will result;

(2) Public health, safety, and welfare will not be adversely affected; and

(3) The wastes will not combine with other wastes, water, or other natural or man-made substances to create additional harmful effects to the natural environment or the public health, safety, and welfare.

B. Submissions. The application for approval of a proposed development must include evidence that affirmatively demonstrates the applicant ~~developer~~ has made adequate provision for solid waste disposal, including, but not limited to, the following information:

(1) The types and estimated quantities of solid waste to be generated by the development and the proposed method of disposal. Types of solid waste may include, but are not be limited to, stumps/grubbings, construction debris, demolition debris, household solid waste, industrial solid wastes, special wastes and hazardous wastes.

(2) A letter from the operator of a solid waste management facility or a municipality stating that adequate capacity exists for solid waste generated by the development and that the development may utilize the solid waste management facility. ~~Indicate~~ The applicant must identify the method of collection (e.g. private, municipal or commercial) and the location of the solid waste management facility for each waste listed. If waste from the site is taken to a transfer station, the application must identify the facility or facilities at which the waste ~~is~~ would ultimately be managed.

(3) If any stumps, grubbings, or other wood waste or land clearing debris ~~is~~ are to be disposed of on-site, the applicant must comply with 38 M.R.S.~~A.~~ § 1301 et~~.~~ seq. and all applicable sections of the department's Solid Waste Management Rules. There are provisions within the Solid Waste Management Rules to exempt the processing of certain land clearing debris as described in 06-096 CMR 409(1)(B)(3). The applicant must ~~D~~delineate the disposal area on the site plan. For subdivisions, if waste is proposed for on-site burial on a particular lot, that lot must be conveyed with a deed restriction identifying the disposal area.

(4) If wood wastes are to be burned on-site, ~~show~~ the burn area must be shown on the site plan and ~~provide~~ exclusion plans provided for materials prohibited from being burned (including chemically treated wood, plastics, vinyl, asphalt shingles, etc). On-site burning cannot create a nuisance condition, and evidence of all applicable fire permits must be submitted. Provide plans for handling both unburned wood waste and woodash, including the name of the licensed or exempt solid waste facility that will accept or receive or manage the ash and unburned materials and the name of the licensed or exempt transporter who will transport the materials to the proposed solid waste facility. If applicable, include evidence of capacity to accept the waste from an approved solid waste facility or a plan outlining the usage of these materials in landscaping and reclamation of the site. Include information on ash/topsoil mixing ratios and application rates. Any proposed open burning must comply with the Rules for Open Burning, 06-096 CMR 102.

(5) When the proposed development is or includes the establishment of a solid waste disposal facility, the applicant shall supply evidence of compliance with the Solid Waste Management Act (38 M.R.S.~~A.,~~ Section 1301 et seq.).

C. Terms and Conditions. The department may, as a term or condition of approval, establish any reasonable requirement to ensure that the applicant has made adequate provision for solid waste disposal, such as the following:

(1) a groundwater quality monitoring program;

(2) on-site construction supervision or engineering inspection by a certified engineer or geologist; and/or

(3) operational inspections and reports by an independent consultant.

17. Adequate Provisions for the Control of Odors

A. Standard. The applicant shall make adequate provision for controlling odors.

B. Submissions. The application for approval of any development likely to be the source of offensive odors shall include evidence that affirmatively demonstrates that the applicant ~~developer~~ has made adequate provision for the control of odors, including, but not limited to, the following information:

(1) the identification of any sources of odors from the development;

(2) an estimation of the area which would be affected by the odor, based on experience in dealing with the material or process used in the development, or similar materials or processes; or

(3) proposed systems for enclosure of odor-producing materials and processes, and proposed uses of technology to control, reduce or eliminate odors.

C. Terms and Conditions. The department may, as a term or condition of approval, establish any reasonable requirement to ensure that the applicant ~~developer~~ has made adequate provision for the control of odors.

18. Adequate Provision for Securing and Maintaining Sufficient and Healthful Water Supplies

A. Standard. The applicant shall make adequate provision for securing and maintaining a sufficient and healthful water supply for the proposed development.

B. Submissions. The application for approval of a proposed developments shall include evidence that affirmatively demonstrates that the applicant has made adequate provision for securing and maintaining a sufficient and healthful water supply, including, but not limited to, the following information:

(1) A letter from the appropriate utility or water district that a sufficient- and healthful water supply exists and may be utilized by the development.

(2) If water is to be supplied on-site, a letter from a geologist or well driller knowledgeable about the area where the development is proposed to be located that a sufficient and healthful water supply is likely to be available.

(a) If there is reasonable doubt that a sufficient and healthful water supply can be provided by means of on-site wells, the following may be required:

(i) water from wells located in close proximity to the development site be tested for potability; and/or

(ii) a test well be dug or drilled on the development site and at report prepared indicating the volume and potability of water obtained from the well.

(3) If water supply and~~,~~ sewage disposal are to be handled on-site, and if lots are less than 2 acres in size, identification of the location of wells and on-site sewage disposal systems for each lot. The separation distance between wells and on-site sewage disposal areas shall be at least the minimum distance established in the Subsurface Wastewater Disposal Rules, 10-144 CMR 241, ~~Maine State Internal Plumbing Code.~~

(4) If water is to be provided by a common source:

(a) evidence that there will be sufficient water to serve the development;

(b) evidence that the common water supply system will be constructed in conformance with the Maine Drinking Water Regulations, authorized by 22 M.R.S.A.~~,~~ Chapter 601; and

(b) evidence that adequate provision has been made for the establishment of a mechanism to ensure proper operation and maintenance of the water supply system.

(5) Indicate the total anticipated water usage (daily or annual) by the proposed development, including the amount of non-potable water to be used for dust control during construction.

C. Terms and Conditions. The department may, as a term or condition of approval, establish any reasonable requirement to ensure the adequate provision of a sufficient and healthful water supply, such as requirements that ~~the following~~:

(1) One or more central wells be installed with adequate water for the development.

(2) An applicant arrange for adequate water service with a local utility or water district, or provide an adequate off-site common well, in cases where the department determines that on-site water supplies may not be adequate.

(3) The location of wells and on-site sewage disposal areas be established by deed conditions.

STATUTORY AUTHORITY: 38 M.R.S.A. Section 343

EFFECTIVE DATE:
November 1, 1979, filing 79-507

AMENDED:
November 21, 1989 – Section 10, filing 89-500
June 12, 1991 - Section 9, filing 91-211

EFFECTIVE DATE (ELECTRONIC CONVERSION): May 4, 1996

AMENDED:

September 22, 2001 - Section 9, filing 2001-402
January 18, 2006 - Section 15, filing 2006-12
June 10, 2012 – Section 10, filing 2012-147 (Final adoption, major substantive)

Chapter 380: LONG-TERM CONSTRUCTION PROJECTS UNDER THE SITE LOCATION OF DEVELOPMENT ACT

SUMMARY: These rules describe requirements associated with a long-term construction project, as provided for by 38 M.R.S. § 485-A(1-C).

1. **Applicability.** This chapter describes requirements for a Site Location of Development Act ("Site Law") permit for a long-term construction project. This chapter applies to a development or amendment to a development for which approval is issued on or after the effective date of this chapter. This chapter also applies to a development issued a "planning permit" pursuant to the original Chapter 380 (Effective July 25, 1997) if the permittee requests to modify the permit so as to come under the current Chapter 380, and the department approves the modification. Metallic mineral mining developments or metallic mineral advanced exploration activities are not eligible for review under this chapter.

2. **Definitions.** As used in this chapter, the following terms have the following meanings.

   A. **Long-term construction project.** A long-term construction project is a project authorized by an individual permit or amendment issued pursuant to the Site Law for construction that either is not anticipated at the time of approval to be substantially completed, or is not substantially completed, within ten years from the date of approval.

   A long-term construction project that is not anticipated to be completed within ten years typically occupies large areas of land that will be developed over a significant period of time, such as a large-scale mixed-use development, airport, school or postsecondary institution or ski resort.

   (1) Amendments. An initial long-term construction project and any subsequent amendments are considered individually, when determining whether a project is not substantially completed within ten years from the date of approval.

   (a) For example, if a development is permitted on 10/1/2015, then it would be considered "long-term" if not substantially completed by 10/1/2025, except where amended as provided in (b).

   (b) For example, if a development is permitted on 10/1/2015, and an amendment to a permit was issued on 10/1/2021, then the area subject to the amendment would be considered long-term if not substantially completed by 10/1/2031, and the remainder of the original development would be considered long-term if not substantially completed by 10/1/2025.

   (2) Permit by rule or minor revision. Determination of whether a project is a long-term construction project is not affected by the approval of a modification to the permit by means of a permit by rule or minor revision.

   B. **Substantially completed.** For purposes of this chapter "substantially completed" means that all major construction is completed. Final landscaping, installation of permanent erosion control measures, signage, site clean-up, and similar minor activities may still be underway following substantial completion.

3. **Standards.** The applicant shall demonstrate that the development meets all applicable standards of 38 M.R.S. § 484, and the rules adopted pursuant thereto. Approval is based upon compliance of the

entire development with the standards of the Site Law. A proper analysis of the potential primary, secondary and cumulative impacts of a proposed development can be made only when the entire development, including all phases is considered and when the applicant submits all available information based on current plans. However, this determination may be based in part upon specified and limited assumptions as determined appropriate by the department. See also Section 4(B) of this chapter.

4. Procedure

A. Election. The applicant for a permit for a long-term construction project may elect to provide specific designs or, alternatively, may choose to specify assumptions for the development or a portion of the development as allowed by the department on a site-specific basis. In either case, the applicant shall provide sufficient information to the department to allow a determination concerning whether standards will be met.

(1) Specified assumptions. Assumptions that may be specified include but are not limited to: the maximum developed area; the maximum amount of impervious area in each subwatershed, the types and maximum volume of waste, potential impacts to surface water and groundwater, and infrastructure requirements in each subwatershed or other relevant division of the area licensed under the permit. The types of assumptions that may be allowed by the department depend upon the type of proposed development and the site selected.

(2) Plans. If the applicant elects to specify assumptions, the department may require the submission of specific built-out plans prior to construction, for review and approval, and may include limits in the terms of the permit or place conditions on the permit to address specific aspects of the unspecified future development, including but not limited to stormwater management, water supply, wastewater, groundwater, air emissions, odors, water vapor, storage and handling of potential contaminants, and scenic character.

(3) Changes. Any changes to the approved assumptions must be submitted to the department for review and approval, and would be processed as a minor revision or an amendment as applicable. The permittee seeking a modification of the permit must meet the standards in effect at the time the application for the modification is accepted as complete for processing.

B. Conformance of future construction with rules. The permittee with a long-term construction permit shall submit periodic construction reports to the Department as described in B(1) and B(2). The permittee shall demonstrate that the following standards are met.

(1) Five year review. If the permittee has not completed the development within five years of the date the long-term construction permit was issued, the permittee shall review the undeveloped portion of the parcel for habitats of species that are of special concern, threatened, or endangered and for rare natural communities and ecosystems (State rarity rank of S1 through S3) as listed by the Maine Natural Areas Program, as of five years from the date of permit issuance, and as of each date five years thereafter until the development is substantially complete. If any such habitat or species is discovered, the permittee must submit plans for establishing appropriate buffers or other protective measures to preserve the habitat to the department for review and approval.

For purposes of this paragraph, "habitats of species that are of special concern, threatened or endangered" are as defined in *No Adverse Environmental Effect Standards of the Site Location of Development Act,* 06-096 CMR 375(15)(B)(3)(a)-(f).

(2) Ten year review. If the permittee has not completed the development within ten years of the date the long-term construction permit was issued, the permitee shall submit the following as a condition compliance application prior to the tenth anniversary of permit issuance, and as of each tenth anniversary thereafter until the development is substantially complete.

(a) Demonstrate that construction planned during the period from ten to twenty years following permit issuance is in conformance with the rules in effect as of ten years from permit issuance. If changes to the plans are required to achieve compliance the permittee will submit an application for project modification. Following this pattern, the permittee must ensure that remaining construction is in conformance with current rules every 10 years following permit issuance, until the development is substantially complete.

The department may waive the requirement for a particular 10-year review, for a particular development or class of developments for which the department determines the change in rules to be insignificant. The waiver does not require rulemaking.

(b) Demonstrate that the requirements of *Financial and Technical Capacity Standards of the Site Location of Development Act,* 06-096 CMR 373 are still met for any portion of the development that is not substantially complete.

5. **Submissions.** An application for a proposed long-term construction project must include evidence that demonstrates that the standards of the Site Law and rules adopted pursuant thereto are met. In addition, evidence must be provided demonstrating that the following standards are met.

A. **Identification of areas and resources protected under the Site Law and rules.** If specified assumptions for the proposed development or portion of the proposed development rather than specific designs are provided, then the applicant must identify all areas of the proposed site protected under the Site Law and rules, although the specific nature and extent of the development activity may not be known at the time that the permit is issued. If the development is within the viewshed of a scenic resource, the applicant must provide sufficient information concerning the entire development to allow the department to make a finding that scenic standards will be met.

B. **Five year review.** The permittee of a long-term construction project shall conduct a survey of the undeveloped part of the parcel for habitats of species that are of special concern, threatened, or endangered, and for rare natural communities and ecosystems (State rarity rank of S1 through S3) as listed by the Maine Natural Areas Program, as of five years from the date of permit issuance, and as of each date five years thereafter until the development is substantially completed. If any such habitat or species is discovered, the permittee must submit plans for the establishment of appropriate buffers or other protective measures to preserve the habitat. These buffers or protected areas shall be shown on as-built plans of the development completed within the five year period.

C. **Ten year review.** The permittee of a long-term construction project shall demonstrate that portions of the development not yet constructed will be in compliance with standards in effect at the time of the ten year review, including but not limited to:

(1) An evaluation of the conformance of future construction with department rules in effect at the time of the evaluation, to the extent that rules have been adopted or amended in the previous ten year period following issuance of the permit, unless this requirement is waived by the department.

(2) Identification and delineation of any previously unidentified areas and resources protected under the Site Law and rules.

(3) Demonstration that the requirements of *Financial and Technical Capacity Standards of the Site Location of Development Act* 06-096 CMR 373 are still met for any portion of the development that is not substantially complete. See the submission requirements at Chapter 373(2)(B) and (3)(B).

6. **Conditions**

A. **Standard conditions.** The standard conditions specified in Chapter 372 apply to long-term construction permits. However, compliance with the periodic reporting requirements of sections 5(B) and 5(C) above may occur in place of a new approval of the permit for the purposes of Chapter 372 Section 12(F).

B. **Special conditions.** The department may, as a term or condition of approval, establish any reasonable requirement to ensure that the proposed development will proceed in accordance with the Site Law and rules, including periodic review of the yet underdeveloped portions of the project under department rules applicable at the time of review, such as requiring the following.

(1) Changes to specified assumptions. Any changes to the approved specified assumptions regarding lot development and stormwater management, water supply, wastewater, groundwater, air emissions, odors, or water vapor described in this Order shall be submitted to the Bureau of Land Resources for review and approval prior to implementation.

(2) Wastewater discharges. All wastewater discharges must be sanitary in nature with strength of 250 mgl/L or less for both biological oxygen demand (BOD) and total suspended solids (TSS).

7. **Inspection.** The department may inspect the site at any time to determine the state of compliance with this section and other applicable laws or rules, and the permittee must take all measures necessary to correct any noncompliance with applicable law and rules.

8. **Modification prior to or following substantial completion of construction.** The granting of a permit is dependent upon and limited to the proposals, plans, and specific assumptions contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents must be submitted to the department for review and approval prior to implementation.

06-096 DEPARTMENT OF ENVIRONMENTAL PROTECTION

AUTHORITY: 38 M.R.S. § 341-D(1-B) and § 485-A(1-C)

REPEALED AND REPLACED:

Chapter 501: **STORMWATER MANAGEMENT COMPENSATION FEES AND MITIGATION CREDIT**

SUMMARY: This Chapter establishes standards for applicants paying a compensation fee or undertaking mitigation to meet the requirements of the Stormwater Management Law, 38 M.R.S. §420-D(11) and Department rules.

1. **Applicability.** This Chapter applies to all projects for which an applicant pays a compensation fee or undertakes mitigation to meet the requirements of the Department's 06-096 CMR ch. 500, Stormwater Management rules. Compensation fees must be paid to the Department's compensation fund or to an organization authorized by the Department pursuant to the Stormwater Management Law 38 M.R.S. §420-D(11).

2. **Definitions**

   A. **Compensation fee utilization plan.** "Compensation fee utilization plan" means a plan that specifies how funds received as a compensation fee payment will be allocated to reduce the impact of stormwater pollution to an impaired water resource.

   B. **Developed area.** "Developed area" means an impervious area, landscaped area, or unrevegetated area. Developed area includes all disturbed areas except an area that is returned to a condition that existed prior to the disturbance and is revegetated within one calendar year of being disturbed, provided the area is not mowed more than twice per year.

   C. **Direct watershed of a waterbody or wetland.** "Direct watershed of a waterbody or wetland" means the land area that drains via overland flow, drainageways, waterbodies, or wetlands to a given waterbody or wetland without first passing through a lake or pond.

   D. **Disturbed area.** Disturbed area" means all land areas that are stripped, graded, grubbed, filled, bulldozed or excavated at any time during the site preparation or removal of vegetation for, or construction of, a project. "Disturbed area" does not include maintenance. A land area on which the cutting of trees, without grubbing, stump removal, disturbance or exposure of soil has taken place is not considered a "disturbed area".

   E. **Drainageway.** "Drainageway" means a natural or man-made channel or course to or from which surface discharge of water may occur. Drainageways include, but are not limited to streams (whether intermittent or perennial), swales, ditches, pipes, culverts, and wetlands with localized discharge of water.

   E. **High use parking lot**. "High use parking lot" means a commercial or other parking lot where parking is used most days and each visit is typically for a duration of less than two consecutive hours, such as a parking lot serving a convenience store, high-turnover restaurant, shopping center, or supermarket.

   G. **Impervious area.** "Impervious area" means the total area of a parcel covered with a low-permeability material that is highly resistant to infiltration by water, such as asphalt, concrete, or rooftop, and areas such as gravel roads and unpaved parking areas that will be compacted through design or use to reduce their permeability. Common impervious areas include, but are not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt

paving, gravel roads, packed earthen materials, and macadam or other surfaces which similarly impede the natural infiltration of stormwater. Pervious pavement, pervious pavers, pervious concrete and underdrained artificial turf fields are all considered impervious.

H. **Infiltration.** "Infiltration" means the process by which runoff percolates through the unsaturated overburden and fractured bedrock to the water table, including any process specifically used to meet all or part of the stormwater standards of this Chapter by actively directing all or part of the stormwater into the soil. For the purposes of this Chapter, infiltration does not include:

(1) Incidental wetting of soil in ditches, detention basins or the equivalent;

(2) Wetting of underdrained basins, dry swales, or similar filtration systems that do not subsequently discharge to groundwater; or

(3) Wetting of buffers meeting Department requirements for use as stormwater control.

Discharge of runoff to areas of the site where the water will collect and percolate into the ground is considered infiltration if the volume, rate, or quality of the discharge does not meet Department standards for use of the area as a stormwater treatment buffer. Underdrained swales, underdrained ponds, and similar practices that discharge to surface waters or to buffer strips meeting Department requirements in 06-096 CMR ch. 500, Appendix F for stormwater buffers are not considered infiltration systems, although these may be used to treat runoff prior to discharge to an infiltration area.

I. **Lake or pond.** "Lake or pond" means a lake or pond classified as GPA under the Water Classification Program, 38 M.R.S. §464 *et seq.*

J. **Landscaped area.** "Landscaped area" means an area of land that has been disturbed and re-planted or covered with one or more of the following: grass or other herbaceous plants, shrubs, trees, or mulch; but not including area that has reverted to a natural, vegetated condition. An area of grass is considered landscaped if it is mowed more than twice per twelve month period.

K. **Maintenance.** "Maintenance" means an activity undertaken to maintain operating condition, original line and grade, hydraulic capacity, and original purpose of the project. Paving an impervious gravel surface at original line, grade and hydraulic capacity is considered maintenance. Replacement of a building is not considered maintenance of the building.

L. **Medium use parking lot.** "Medium use parking lot" means a parking lot that is used most days and where vehicles are parked for an extended period of time, typically longer than two consecutive hours, such as an "employees only" parking lot, a school, and long-term parking at an intermodal transportation facility such as an airport, bus terminal or railroad station,

M. **Pre-development area.** "Pre-development area" means an impervious or developed area created prior to the effective date of the Stormwater Management Law for a stormwater project, or the effective date of the jurisdictional threshold under which a development is licensed for a Site Law development.

N. **Site Law.** "Site Law" means the Site Location of Development Law, 38 M.R.S. §§481-490.

O. **Stormwater.** "Stormwater" means the part of precipitation, including runoff from rain or melting ice and snow, that flows across the surface as sheet flow, shallow concentrated flow, or in drainageways.

P. **Stormwater Management Law.** "Stormwater Management Law" means the Stormwater Management Law, 38 M.R.S. §420-D.

Q. **Stream.** "Stream" means a river, stream, or brook as defined in the Natural Resources Protection Act at 38 M.R.S. §480-B.

R. **Urban impaired stream.** "Urban impaired stream" means a stream or stream segment that meets the criteria of 06-096 CMR ch. 502 subsection (3)(B) and is listed in 06-096 CMR ch. 502, Appendix B.

S. **Waterbody.** "Waterbody" means a lake, pond, river or stream.

T. **Watershed.** "Watershed" means the land area that drains, via overland flow, drainageways, waterbodies, or wetlands to a given waterbody or wetland.

U. **Wetland.** "Wetlands" means coastal and freshwater wetlands as defined in the Natural Resources Protection Act, 38 M.R.S. §480-B.

3. **Mitigation through compensation fees or projects.** This Section applies to projects for which the applicant pays a compensation fee and/or undertakes mitigation through compensation projects in order to meet, or in lieu of meeting, certain stormwater standards. Mitigation projects eliminate off-site sources, or may reduce on-site sources as provided in this Section.

A. **Projects required to meet the urban impaired stream standard**

(1) **Compensation fees or mitigation credits used to meet the urban impaired stream standard.** If a project is required to meet the urban impaired stream standard described in 06-096 CMR ch. 500 subsection (4)(D), compensation fees or mitigation credits used to meet the urban impaired standard are determined based on Table 1, whether or not the developed area will be receiving treatment to meet the general standards.

Table 1
Compensation or Mitigation Based on Development Type

Type of surface	Compensation fee (per acre*)	Mitigation credits required (per acre*)
Non-roof impervious area	$12,500	0.5 credits
Roof	$5,000	0.2 credits
Landscaped area	$2,500	0.1 credits

*fees or credits for fractions of an acre are prorated.

(2) **Compensation fees.** Compensation fees may only be used in watersheds where a compensation fee utilization plan developed by a municipality or other entity has been approved by the Department. A compensation fee utilization plan specifies how funds

received from an applicant will be allocated to reduce the impact of stormwater pollution to an urban impaired stream. A plan must include provision to ensure that money will only be used for the intended purpose through establishment of a dedicated account. If a compensation fee utilization plan is proposed by an entity other than a municipality, the entity must demonstrate that the plan has been submitted to the municipality in which the project is located for review and adoption prior to submittal of an application to the Department.

(3) **Amount of mitigation credit.** Table 2 indicates the amount of on-site or off-site mitigation credit earned by a project in the direct watershed of an urban impaired stream for a variety of allowed off-site and on-site pre-development mitigation activities.

Table 2
Mitigation Credits Based on Type of Activity and Type of Development

Mitigation activity	Development type	Credit earned (per acre* treated)
Retrofit with general standards at 1/3 required sizing or with approved flow through sedimentation device	Road or high use parking lot	0.5 credit
	Medium use parking lot	0.4 credit
	Other parking lot	0.3 credit
	Roof or other impervious area	0.2 credit
	Landscaped area	0.1 credit
Retrofit with general standards at 2/3 required sizing	Road or high use parking lot	1.0 credit
	Medium use parking lot	0.48 credit
	Other parking lot	0.36 credit
	Roof or other impervious area	0.24 credit
	Landscaped area	0.12 credit
Retrofit with general standards at required sizing	Road or high use parking lot	~~1.0~~ 1.5 credit
	Medium use parking lot	~~0.8~~ 1.2 credit
	Other parking lot	0.69 credit
	Roof or other impervious area	0.46 credit
	Landscaped area	0.23 credit
Eliminate impervious source area, replace with landscaped area	Road or high use parking lot	~~1.5~~1.0 credits
	Medium use parking lot	~~1.2~~ 0.7 credits
	Other parking lot	0.94 credit
	Roof or other impervious area	0.62 credit
	~~Landscaped area~~	~~0.3 credit~~
Eliminate impervious source area, replace with a	Road or high use parking lot	~~1.0~~ 2.0 credit
	Medium use parking lot	~~0.75~~ 1.5 credit
	Other parking lot	~~0.5~~ 1.0 credit

designed planting and approved maintenance plan that will result in a forest	Roof or other impervious area	0.5 credit
Retrofit detention with vegetated gravel under-drains	~~Road or high use parking lot~~	~~2.0 credits~~
	~~Medium use parking lot~~	~~1.5 credits~~
	~~Other parking lot~~	~~1.0 credit~~
	Impervious areas only	0.5 credit

*credits earned for fractions of an acre-are prorated.

In addition to the use of on-site or off-site mitigation or compensation fees, the Department may approve other mitigation measures on a case-by-case basis. Other measures proposed by an applicant must provide at least equivalent protection as measures described in Table 2 above, as determined by the Department.

(4) **Reduction of compensation fees or mitigation credit for projects in watersheds with an approved watershed management plan.** The Department may waive or reduce compensation fees or mitigation credit if a municipality, or quasi-municipal entity having jurisdiction over the area in which the project is located has developed and is implementing a watershed management plan for the watershed in which the project is located. The watershed management plan must be approved by the Department as meeting the purpose of restoring water quality. Within a designated growth area of a municipality with an adopted comprehensive plan that the Maine Department of Agriculture, Conservation & Forestry has found to be consistent with the Planning and Land Use Regulation Act, or within a watershed located in a Service Center Community identified pursuant to 30-A M.R.S. §4301(14-A), implementation of the watershed management plan may be deferred for up to five years from the date of Department approval, or until state or federal financial assistance is available, whichever comes first.

B. A project required to meet the general standards that is not in the direct watershed of an urban impaired stream. If a project is required to meet the general standards described in 06-096 CMR ch. 500 subsection (4)(C) and it is not in the direct watershed of an urban impaired stream, the Department may allow the portion of a project's impervious or developed acreage that must be treated to be reduced through mitigation by eliminating or reducing an off-site or an on-site pre-development impervious stormwater source. For Site Law projects, the amount of reduction in treatment allowed is limited to 50%.

(1) **Source reduction or elimination.** A source is considered to be eliminated if impervious area is removed, the underlying soil is aerated, and the area revegetated and returned to a wooded condition. A source is considered to be reduced if the impervious area is removed, the underlying soil is aerated and the area revegetated and maintained as a lawn or other non-forested area. The amount of reduction in the project's treated acreage allowed will be determined on a case-by-case basis by the Department, based on the existing and future uses of the project site, the existing and future use of the eliminated or reduced off-site or on-site pre-development impervious area, and the equivalency of these uses. In determining whether to approve a mitigation proposal, the Department will determine whether the expected reduction in stormwater pollutant export and stormwater flows can reasonably be expected to exceed the stormwater pollutant export and stormwater flow resulting from the untreated acreage at the project site.

(2) **When the amount of roof or non-impervious developed acreage that must be treated may be reduced.** The Department may reduce the portion of a project's roof or non-impervious developed acreage that must be treated by an equivalent area of on-site, pre-development roof, parking or road surfaces for which the applicant agrees to incorporate and maintain stormwater treatment structures.

C. **A project in the direct watershed of a lake that is required to meet the phosphorus standards.** If a project is required to meet the phosphorus standards described in 06-096 CMR ch. ~~chapter~~ 500 subsection (4)(D), a compensation fee may be paid, or an off-site mitigation credit may be allowed as follows:

(1) **Elimination or reduction of off-site sources of phosphorus.** A source is considered to be eliminated if impervious area is removed, and the area is revegetated and returned to a wooded condition. A source is considered to be reduced if the impervious area is removed, and the area is revegetated and maintained as lawn or other non-forested area. For every two pounds of estimated off-site phosphorus export that is removed from the watershed, estimated on-site phosphorus export may be reduced by one pound. If the applicant can demonstrate, based on type of impervious area and intensity of use, that the level of phosphorus export from the eliminated or reduced off-site area is equivalent to or greater than that expected from the proposed impervious area, then a credit may be allowed at a ratio of 1 to 1.

(2) **Treatment of certain off-site sources of phosphorus**

(a) Paving of a road to eliminate erosion of the road surface if the Department determines it is a significant source of phosphorus. The amount of credit will be established based on modeling to determine the amount of phosphorus that will be removed.

(b) Repairing a chronic erosion site if the Department determines it is a significant source of phosphorus. The amount of credit will be based on the Department's determination of the life expectancy of the erosion repair. The ratio of the life expectancy to a 50 year period will determine the percent credit given; e.g., an erosion site that is expected to need repair every 10 years will be given 20% credit for the actual amount of phosphorus that will be removed from the source.

(c) Credit for other treated phosphorus sources will be determined on a case-by-case basis.

(d) A Department-approved inspector may be required to conduct weekly inspections during the period of construction as a condition of approval.

(3) A compensation fee per pound of phosphorous export as described in 38 M.R.S. §420-D(11)(A), or off-site mitigation is allowed at the Department's discretion, depending on the availability of suitable compensation projects. This option, which permits an applicant to pay a compensation fee in lieu of reducing phosphorous export beyond a project's allotment, is only allowed for sites where the phosphorous export from the proposed development site has already been reduced by at least 60%. This compensation fee option is not available for projects or portions of projects that are residential subdivisions or roads within residential subdivisions, unless the project is using only wooded or meadow buffers and associated level spreaders and ditch turnouts as described in 06-096 CMR ch. 500 Appendix F to address the remaining phosphorus export reduction required to meet the projects phosphorus allocation, or unless a mitigation project is

identified and approved by the Department in the same watershed. The compensation fee per pound of phosphorous export shall be determined based on Table 3.

Table 3
Compensation Fee Per Pound of Phosphorus Export

Percentage of Project's Phosphorous Export	Additional Phosphorous Compensation Fee (dollars per pound)*
60%	$25,000
75%	$12,500
100%	$0

* fees are prorated.

D. Location. The mitigation activity must be located in the same watershed as the project to off-set the impact of the pollutant export from the project. More than one mitigation activity may be applied to a project.

E. Protection from alteration. Areas in which an off-site or on-site pre-development stormwater source has been reduced or eliminated as described in subsections 3(A), 3(B), and 3(C) above, must be protected from alteration through deed restrictions, a conservation easement to which the Department is a party, or similar measures. These covenants must specify that they may only be modified with Department approval. See Appendix A of this Chapter.

F. Maintenance and transfer. Areas revegetated to off-set project impacts must be maintained and any transfer of these areas must be made subject to deed restrictions that require such maintenance and are enforceable by the Department. These deed restrictions must specify that they may only be modified with Department approval.

APPENDIX A. Suggested templates for deed restrictions and conservation easements for use under the Stormwater Management Law

1. Forested buffer, limited disturbance

DECLARATION OF RESTRICTIONS (Forested Buffer, Limited Disturbance)

THIS DECLARATION OF RESTRICTIONS is made this _____day of _____, 20___, by _____ , _____,
(name) (street address)
_____, _____County, Maine, _____, (herein referred to as the
(city or town) (county) (zip code)
"Declarant"), pursuant to a permit received from the Maine Department of Environmental Protection under the Stormwater Management Law, to preserve a buffer area on a parcel of land near _____,_____ .
(road name) (known feature and/or town)

WHEREAS, the Declarant holds title to certain real property situated in _____, Maine
(town)
described in a deed from_____ to _____dated
(name) (name of Declarant)
_____, 20____, and recorded in Book ____ Page ____ at the _____County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer area location here)

WHEREAS, pursuant to the Stormwater Management Law, 38 M.R.S. Section 420-D and Chapter 501 of rules promulgated by the Maine Department of Environmental Protection, Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

1. **Restrictions on Restricted Buffer Area**. Unless the owner of the Restricted Buffer Area, or any successors or assigns, obtains the prior written approval of the MDEP, the Restricted Buffer Area must remain undeveloped in perpetuity. To maintain the ability of the Restricted Buffer Area to filter and absorb stormwater, and to maintain compliance with the Stormwater Management Law and the permit issued thereunder to the Declarant, the use of the Restricted Buffer Area is hereinafter limited as follows.

   a. No soil, loam, peat, sand, gravel, concrete, rock or other mineral substance, refuse, trash, vehicle bodies or parts, rubbish, debris, junk waste, pollutants or other fill material may be placed, stored or dumped on the Restricted Buffer Area, nor may the topography of the area be altered or manipulated in any way;

   b. Any removal of trees or other vegetation within the Restricted Buffer Area must be limited to the following:

      (i) No purposefully cleared openings may be created and an evenly distributed stand of trees and other vegetation must be maintained. An "evenly distributed stand of trees " is defined as maintaining a minimum rating score of 24 points in any 25 foot by 50 foot rectangle 1,250 square feet) area, as determined by the rating scheme in Table 3:

Table 3
Point System for Determining an Evenly Distributed Stand of Trees

Diameter of tree at 4½ feet above ground level	Points
2 - 4 inches	1
4 - 8 inches	2
8 - 12 inches	4
>12 inches	8

Where existing trees and other vegetation result in a rating score less than 24 points, no trees may be cut or sprayed with biocides except for the normal maintenance of dead, windblown or damaged trees and for pruning of tree branches below a height of 12 feet provided two thirds of the tree's canopy is maintained;

      (ii) No undergrowth, ground cover vegetation, leaf litter, organic duff layer or mineral soil may be disturbed except that one winding path, that is no wider than six feet and that does not provide a downhill channel for runoff, is allowed through the area;

   c. No building or other temporary or permanent structure may be constructed, placed or permitted to remain on the Restricted Buffer Area, except for a sign, utility pole or fence;

   d. No trucks, cars, dirt bikes, ATVs, bulldozers, backhoes, or other motorized vehicles or mechanical equipment may be permitted on the Restricted Buffer Area;

   e. Any level lip spreader directing flow to the Restricted Buffer Area must be regularly inspected and adequately maintained to preserve the function of the level spreader.

Any activity on or use of the Restricted Buffer Area inconsistent with the purpose of these Restrictions is prohibited. Any future alterations or changes in use of the Restricted Buffer Area must receive prior approval in writing from the MDEP. The MDEP may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control and treatment capability of the Restricted Buffer Area or if adequate and appropriate alternative means of stormwater control and treatment are provided.

2. **Enforcement.** The MDEP may enforce any of the Restrictions set forth in Section 1 above.

3. **Binding Effect.** The restrictions set forth herein shall be binding on any present or future owner of the Restricted Buffer Area. If the Restricted Buffer Area is at any time owned by more than one owner, each owner shall be bound by the foregoing restrictions to the extent that any of the Restricted Buffer Area is included within such owner's property.

4. **Amendment.** Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the owner or owners of the Restricted Buffer Area and by the MDEP.

5. **Effective Provisions of Declaration.** Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Restricted Buffer Area.

6. **Severability.** Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.

7. **Governing Law.** This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

_____
(NAME)

STATE OF MAINE_____ County, _____, 20__.
(County) (date)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

_____
Notary Public

_____

2. Forested buffer, no disturbance

DECLARATION OF RESTRICTIONS (Forested Buffer, No Disturbance)

THIS DECLARATION OF RESTRICTIONS is made this _____day of _____ , 20___, by _____, _____ , (name) (street address) _____, _____County, Maine, _____ , (herein referred to as the (city or town) (county) (zip code) "Declarant", pursuant to a permit received from the Maine Department of Environmental Protection under the Stormwater Management Law, to preserve a buffer area on a parcel of land near _____, _____ . (road name) (known feature and/or town)

WHEREAS, the Declarant holds title to certain real property situated in _____, Maine (town) described in a deed from _____to _____, dated (name) (name of Declarant) _____, 20____, and recorded in Book ____ Page ____ at the _____County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer location here)

WHEREAS, pursuant to the Stormwater Management Law, 38 M.R.S. Section 420-D and Chapter 501 of rules promulgated by the Department of Environmental Protection, Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions

and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

1. **Restrictions on Restricted Buffer Area.** Unless the owner of the Restricted Buffer Area, or any successors or assigns, obtains the prior written approval of the MDEP, the Restricted Buffer Area must remain undeveloped in perpetuity. To maintain the ability of the Restricted Buffer Area to filter and absorb stormwater, and to maintain compliance with the Stormwater Management Law and the permit issued thereunder to the Declarant, the use of the Restricted Buffer Area is hereinafter limited as follows.

    a. No soil, loam, peat, sand, gravel, concrete, rock or other mineral substance, refuse, trash, vehicle bodies or parts, rubbish, debris, junk waste, pollutants or other fill material will be placed, stored or dumped on the Restricted Buffer Area, nor shall the topography of the area be altered or manipulated in any way;

    b. No trees may be cut or sprayed with biocides except for the normal maintenance of dead, windblown or damaged trees and for pruning of tree branches below a height of 12 feet provided two thirds of the tree's canopy is maintained;

    c. No undergrowth, ground cover vegetation, leaf litter, organic duff layer or mineral soil may be disturbed except that one winding path, that is no wider than six feet and that does not provide a downhill channel for runoff, is allowed through the area;

    d. No building or other temporary or permanent structure may be constructed, placed or permitted to remain on the Restricted Buffer Area, except for a sign, utility pole or fence;

    e. No trucks, cars, dirt bikes, ATVs, bulldozers, backhoes, or other motorized vehicles or mechanical equipment may be permitted on the Restricted Buffer Area;

    f. Any level lip spreader directing flow to the Restricted Buffer Area must be regularly inspected and adequately maintained to preserve the function of the level spreader.

Any activity on or use of the Restricted Buffer Area inconsistent with the purpose of these Restrictions is prohibited. Any future alterations or changes in use of the Restricted Buffer Area must receive prior approval in writing from the MDEP. The MDEP may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control and treatment capability of the Restricted Buffer Area or if adequate and appropriate alternative means of stormwater control and treatment are provided.

2. **Enforcement.** The MDEP may enforce any of the Restrictions set forth in Section 1 above.

3. **Binding Effect.** The restrictions set forth herein shall be binding on any present or future owner of the Restricted Buffer Area. If the Restricted Buffer Area is at any time owned by more than one owner, each owner shall be bound by the foregoing restrictions to the extent that any of the Restricted Buffer Area is included within such owner's property.

4. **Amendment.** Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the owner or owners of the Restricted Buffer Area and by the MDEP.

5. **Effective Provisions of Declaration**. Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Restricted Buffer Area.

6. **Severability**. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.

7. **Governing Law**. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

_____

(NAME)

STATE OF MAINE, _____ County, dated _____, 20__.
(County)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

_____
Notary Public

_____

3. Meadow buffer

DECLARATION OF RESTRICTIONS (Non-Wooded Meadow Buffer)

THIS DECLARATION OF RESTRICTIONS is made this _____day of _____, 20___, by _____, _____
(name) (street address)
_____, _____County, Maine,_____, (herein referred to as the
(city or town) (county) (zip code)
"Declarant"), pursuant to a permit received from the Maine Department of Environmental Protection under the Stormwater Management Law, to preserve a buffer area on a parcel of land near _____, _____.
(road name) (known feature and/or town)

WHEREAS, the Declarant holds title to certain real property situated in _____, Maine
(town)
described in a deed from _____ to _____, dated
(name) (name of Declarant)
_____, 20____, and recorded in Book ____ Page ____ at the _____County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer location here)

WHEREAS, pursuant to the Stormwater Management Law, 38 M.R.S.A. Section 420-D and Chapter 501 of rules promulgated by the Maine Department of Environmental Protection, Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

1. **Restrictions on Restricted Buffer Area.** Unless the owner of the Restricted Buffer Area, or any successors or assigns, obtains the prior written approval of the MDEP, the Restricted Buffer Area must remain undeveloped in perpetuity. To maintain the ability of the Restricted Buffer Area to filter and absorb stormwater, and to maintain compliance with the Stormwater Management Law and the permit issued thereunder to the Declarant, the use of the Restricted Buffer Area is hereinafter limited as follows.

   a. No soil, loam, peat, sand, gravel, concrete, rock or other mineral substance, refuse, trash, vehicle bodies or parts, rubbish, debris, junk waste, pollutants or other fill material will be placed, stored or dumped on the Restricted Buffer Area, nor may the topography or the natural mineral soil of the area be altered or manipulated in any way;

   b. A dense cover of grassy vegetation must be maintained over the Restricted Buffer Area, except that shrubs, trees and other woody vegetation may also be planted or allowed to grow in the area. The Restricted Buffer Area may not be maintained as a lawn or used as a pasture. If vegetation in the Restricted Buffer Area is mowed, it may be mown no more than two times per year.

   c. No building or other temporary or permanent structure may be constructed, placed or permitted to remain on the Restricted Buffer Area, except for a sign, utility pole or fence;

   d. No trucks, cars, dirt bikes, ATVs, bulldozers, backhoes, or other motorized vehicles or mechanical equipment may be permitted on the Restricted Buffer Area, except for vehicles used in mowing;

   e. Any level lip spreader directing flow to the Restricted Buffer Area must be regularly inspected and adequately maintained to preserve the function of the level spreader.

   Any activity on or use of the Restricted Buffer Area inconsistent with the purpose of these Restrictions is prohibited. Any future alterations or changes in use of the Restricted Buffer Area must receive prior approval in writing from the MDEP. The MDEP may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control and treatment capability of the Restricted Buffer Area or if adequate and appropriate alternative means of stormwater control and treatment are provided.

2. **Enforcement.** The MDEP may enforce any of the Restrictions set forth in Section 1 above.

3. **Binding Effect.** The restrictions set forth herein shall be binding on any present or future owner of the Restricted Buffer Area. If the Restricted Buffer Area is at any time owned by more than one owner, each owner shall be bound by the foregoing restrictions to the extent that any of the Restricted Buffer Area is included within such owner's property.

4. **Amendment.** Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the owner or owners of the Restricted Buffer Area and by the MDEP.

5. **Effective Provisions of Declaration.** Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Restricted Buffer Area.

6. **Severability.** Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.

7. **Governing Law.** This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

_____
(NAME)

STATE OF MAINE, _____, County, dated _____, 20__ .
(County)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

_____
Notary Public

_____

Basis Statement
Chapter 501: Stormwater Management Compensation Fees and Mitigation Credit
May 3, 2016

The proposed amendments to the Department's Chapter 501: Stormwater Management Compensation Fees and Mitigation Credit rule revise the on-site or off-site mitigation credit earned by a mitigation project in the direct watershed of an urban impaired stream to more accurately reflect the effectiveness of different mitigation activities on each of the following sites: 1) Road or high use parking lots; 2) Medium use parking lots; 3) Other parking lots; 4) Roof or impervious areas; and 5) Landscaped areas.

The Department's proposal was posted to a 30-day public comment period ending on April 22, 2016. The Department did not receive any comments, and no changes were made to the proposal.

06-096
Maine Department of Environmental Protection

Chapter 691
RULES FOR UNDERGROUND OIL STORAGE FACILITIES

Effective: September 16, 1991
Amended: December 24, 1996
Amended: June 13, 2002
Amended: March 14, 2004
Corrected Printing: April 28, 2004
Amended: April 3, 2007
Amended: September 12, 2010
Amended: March 13, 2012 – filing 2012-71
Amended: January 7, 2014 – filing 2014-003

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Chapter 691 RULES FOR UNDERGROUND OIL STORAGE FACILITIES

SUMMARY: This rule requires registration of all new and existing underground petroleum tanks. It establishes standards installation of new facilities, and the operation and closure of all types of underground oil storage facilities. The rule also outlines requirements for reporting and clean-up of leaks or other oil pollution at underground storage facilities.

1. **Legal Authority.** This rule is authorized under 38 ~~M.R.S.A.~~M.R.S., sections 561 *et seq.* These sections of Maine law authorize and direct the development of rules for the registration, siting, design, installation, replacement, operation and closure of underground oil storage facilities and tanks, except tanks used to store propane.

2. **Preamble.** It is the purpose of this rule, consistent with legislative policy, to provide necessary controls over underground oil storage facilities to ensure the protection of Maine's ground water resources from oil discharges and leaks and of public health, safety, welfare and the overall environment.

3. **Definitions.** The following terms as used in this rule have the following meaning:

   A. **Ancillary equipment.** "Ancillary equipment" means devices including but not limited to, piping fittings, flanges, valves and pumps used to distribute, meter or control the flow of oil to or from an underground oil storage tank.

   B. **Board.** "Board" means the Maine Board of Environmental Protection.

   C. **Cathode.** "Cathode" means the electrode of an electrochemical cell at which reduction occurs.

   D. **Cathodic protection tester.** "Cathodic protection tester" means an underground oil storage tank installer certified by the Maine Board of Underground Storage Tank Installers, or an underground oil storage tank inspector also meeting the requirements of Appendix M of this rule.

   E. **Cathodically protected.** "Cathodically protected" means the use of a technique, consistent with the National Association of Corrosion Engineers (NACE) International publication, "Standard Recommended Practice Corrosion Control of Underground Storage Tank Systems by Cathodic Protection," RP-0285-2002, or "Standard Recommended Practice, Control of External Corrosion on Underground or Submerged Metallic Piping Systems", RP-0169-2002, to prevent the corrosion of a metal surface by making that surface the cathode of an electrochemical cell.

   F. **Cathodic protection monitoring.** "Cathodic protection monitoring," means a process of measuring the structure to electrolyte potential to determine whether a cathodically protected structure is being adequately protected against corrosion. Cathodic protection monitoring shall be performed according to the requirements of Appendix A.

   G. **Class I liquids.** "Class I liquids," means liquids having a flash point below 100 degrees F.

   H. **Commissioner.** "Commissioner" means the Commissioner of Environmental Protection.

   I. **Contamination.** "Contamination" for the purposes of this rule only and as applied to groundwater, surface water and soils, means oil pollution attributable to an underground oil storage facility and exceeding any one of the following standards:

      (1) The presence of free product, an oil sheen or oil saturated soils;

(2) Primary drinking water standards adopted in rule effective February 27, 2012 by the Maine Department of Health and Human Services (10-144 CMR, Chapter 231);

(3) Maximum exposure guidelines (MEG) published on October 19, 2012 by the Maine Center of Disease Control and Prevention in the Department of Health and Human Services;

(4) A statistically significant increase in the concentration of measured parameters at on-site or down-gradient locations by comparison with representative background values, as demonstrated by statistical methods and procedures using a 95% level of confidence, approved by the commissioner and consistent with the provisions of 40 CFR subsection 264.97 (except that where the "Regional Administrator" is referred to, the "Commissioner" is meant).

(5) Water where volatile or extractable petroleum hydrocarbon fractions or target compounds are documented;

(6) Soils visibly stained or discolored by a heavy oil; or

(7) Soils where volatile or extractable petroleum hydrocarbon fractions or target compounds equal or exceed reporting levels in Table 1 of Appendix Q of this rule

J. **Continuous electronic monitoring.** "Continuous electronic monitoring" means the use of a monitoring device capable of automatic, continuous unattended operation, which will provide a clear, audible or visual indication of the presence of liquid hydrocarbons or hydrocarbon vapors outside of a primary hydrocarbon container or the loss of the primary containment structure's integrity.

K. **Corrosion expert.** "Corrosion expert" means a person who is certified by the commissioner pursuant to 38 ~~M.R.S.A.~~M.R.S., section 567-A and Appendix N of this rule, as qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks.

L. **Corrosion-induced leak.** "Corrosion-induced leak" means any discharge of oil from an underground oil storage facility or tank caused by the deterioration of materials that comprise the facility or tank because of a reaction with the internal or external environment of the facility or tank.

M. **Daily inventory.** "Daily inventory" means accounting practices for oil stock control, including at a minimum: (1) a record of all bulk liquid receipts; (2) a record of all liquid dispersed from the facility; (3) a daily reconciliation between sales, use, receipts and inventory-on-hand; and (4) a monthly summary of inventory results maintained in accordance with the requirements of section 5(D)(1) of this rule.

N. **Department.** "Department" means the Maine Department of Environmental Protection composed of the board and the commissioner.

O. **Discharge.** "Discharge" means any spilling, leaking, pumping, pouring, emitting, escaping, emptying, or dumping.

P. **Double-walled tank.** "Double-walled tank" means an underground oil storage tank providing no less than 300-degree secondary containment, interstitial space monitoring and secondary containment for pressurized product delivery pipe connections.

Q. **Emergency situation.** "Emergency situation" means any unforeseen circumstances where the installation or replacement of an underground oil storage facility or tank is required to protect the public health, safety, and welfare.

R. **Existing underground oil storage facility or existing underground oil storage tank.** "Existing underground oil storage facility" or "existing underground oil storage tank" means any facility or tank, as defined in subsections WW and XX, that was fully installed as of April 19, 1990, and the location of which has not changed.

S. **Facilities used for consumption on the premises.** "Facilities used for consumption on the premises," means underground oil storage facilities not used to store motor fuels or waste oil, or in the marketing and distribution of oil to others. This includes underground heating oil storage facilities where the product is consumed on the premises or by the owner or operator of the facility.

T. **Facilities used for marketing and distribution.** "Marketing and distribution facility" means any underground oil storage facility where oil is stored for eventual resale.

U. **Free product.** "Free product" means nonaqueous phase liquid oil or petroleum.

V. **Gallon.** "Gallon" means a unit of volume in the U.S. Customary System, used in liquid measure, equal to four (4) quarts, or 3.785 liters.

W. **Gasoline.** "Gasoline" means a volatile, highly flammable liquid with a flash point of less than 100 degrees F obtained from the fractional distillation of petroleum.

X. **Heavy oil.** "Heavy oil" means forms of oil that must be heated during storage, including, but not limited to #5 and #6 oils.

Y. **Impressed current cathodic protection system.** "Impressed current cathodic protection system," means a cathodic protection system that relies on direct current supplied by a power source external to the electrode system.

Z. **In service.** "In service" means that a tank or facility has had product added or removed for its intended purpose.

AA. **Leak.** "Leak" means a loss or gain of 0.1 gallons or more per hour as determined by a precision test or other facility integrity test methods approved by the commissioner capable of detecting a 0.1 gallon or more per hour product loss or gain.

BB. **Monitoring well.** "Monitoring well" means a dug or drilled, cased well or other device used to detect oil in ground water and constructed as specified in appendices F and G of this rule.

CC. **Motor fuel.** "Motor fuel" means oil that is motor gasoline, aviation gasoline, #1 or #2 diesel fuel or any grade of gasohol typically used in the operation of a vehicle or motor engine.

DD. **Occurrence.** "Occurrence" means a contamination incident or prohibited discharge associated with one or more tanks or piping at an underground oil storage facility within one year.

EE. **Oil.** "Oil" means oil, oil additives, petroleum products and their by-products of any kind and in any form including, but not limited to, petroleum, fuel oil, sludge, oil refuse, oil mixed with other nonhazardous waste, crude oils and all other liquid hydrocarbons regardless of specific gravity. For the purposes of this rule, oil does not include propane.

FF. **Operator.** "Operator" means any person who is in control of, ~~and~~ or having ~~responsibl~~responsibilitye for, the daily operation of an underground oil storage facility or tank.

GG. **Out-of-service underground oil storage facility or tank.** "Out-of- service underground oil storage facility" and "out-of-service underground oil storage tank" means any such facility or

tank, as defined in subsections WW and XX, neither receiving nor dispensing oil, but to be returned to service or awaiting abandonment pursuant to section 11 of this rule.

HH. Owner. "Owner" means any person whom alone, or in conjunction with others owns an underground oil storage facility.

II. Person. "Person" means any natural person, firm, association, partnership, corporation, trust, the State and any agency of the State, governmental entity, quasi-governmental entity, the United States and any agency of the United States and any other legal entity.

JJ. Piping line tightness test. "Piping line tightness test" means a precision test, as defined under subsection LL, to determine the presence of a leak in the piping components of a facility. Volumetric and non-volumetric tests may be used. All piping tightness tests must be conducted in accordance with the requirements of Appendix B.

KK. Pneumatic test. "Pneumatic test" means an air pressure test, performed in accordance with the requirements of Appendix C of this rule.

LL. Precision test. "Precision test" means a tank or piping line tightness test, approved by the commissioner, that is capable of detecting a leak, a loss or gain of 0.1 gallon per hour with a probability of detection of at least 95 percent and a probability of false alarm of five (5) or less percent as determined by an independent testing laboratory using protocols approved by the U.S. Environmental Protection Agency or a nationally recognized independent testing organization, including, but not limited to, the American Society for Testing and Materials (ASTM) and the National Work Group on Leak Detection Evaluations. A precision test method specifically for testing the integrity of the interstitial space of a double-walled tank, and that lacks an independent third party approval of its protocols, must be reviewed and approved by the commissioner prior to use. For the purpose of this chapter, precision test also means test methods approved by the commissioner to determine the integrity of dispenser, tank top, piping and other sumps.

MM. Private water supply. "Private water supply" means any dug, drilled or other type of well or spring or other source of water, which collects water for human consumption and is not a public water supply.

NN. Public drinking water supply. "Public drinking water supply" means any well or other source of water that furnishes water to the public for human consumption for at least 15 connections, regularly serves an average of at least 25 individuals daily at least 60 days out of the year, or that supplies bottled water for sale. For the purpose of defining "sensitive geologic area" under subsection QQ, a well or other source of water that is a public drinking water supply solely because the water is used to make beverages for public sale or consumption is deemed to be a private drinking water supply.

OO. Replacement facility. "Replacement facility" means an underground oil storage facility where one or more of the following major components are replaced: a tank; piping; leak detection equipment; or overfill prevention or containment equipment. Minor repairs to a facility component, or other repairs conducted in accordance with the requirements of this rule, do not trigger the definition of a replacement facility.

NOTE: Except where specified otherwise in the rule, only the major component replaced will need to meet the rule's design and installation requirements for new and replacement facilities. It is not the intent of this definition to require the upgrade of an entire facility in the event one component is replaced.

PP. Secondary containment. "Secondary containment" means a system installed so that any material that is discharged or has leaked from the primary containment is prevented from reaching the soil or ground water outside the system for the anticipated period of time necessary to detect and recover the discharged material. Such a system may include double-walled tanks and piping, double-walled sumps or another method approved by the commissioner that is technically feasible and effective, and meets the requirements of section 5(B)(2).

QQ. Sensitive geologic areas. "Sensitive geologic areas" means any of the following: 1) significant ground water aquifers, as defined in subsection RR below; 2) locations within 1,000 feet of a public drinking water supply; or 3) locations within 300 feet of a private drinking water supply. Sensitive geologic areas around surface water bodies shall include all areas within 1000 feet of the intake point of a public water system, except on rivers and streams where it will only include areas within a 1000 feet of the intake point and upstream on either shore. All areas within 300 feet of the intake point in a lake, pond or other surface water body used for a private water supply system shall be considered a sensitive geological area, except on rivers and streams where it will only include areas 300 feet upstream on either shore of the intake point.

RR. Significant ground water aquifer. "Significant ground water aquifer" means a porous formation of ice-contact and glacial outwash sand and gravel, as identified by the current Maine Geological Survey maps, that contains significant recoverable quantities of water which is likely to provide drinking water supplies.

NOTE: Significant Sand and Gravel Aquifer Maps are available from the Maine Geological Survey, Department of Conservation, 22 State House Station, Augusta, Maine 04333-0022.

SS. Site assessment. "Site assessment" means a determination at the time of facility or tank closure, of the occurrence of a prohibited leak or discharge of oil, and of the presence or absence of oil contamination in the soils or the waters of the State.

TT. Statistical inventory analysis. "Statistical inventory analysis" or "statistical inventory reconciliation" means a process of evaluating the various sources of errors present in daily inventory records and capable of detecting a leak or discharge of 0.1 gallons per hour with a 95 percent probability and a 5 percent chance of a false alarm as determined by an independent testing laboratory using U.S. Environmental Protection Agency's approved standardized test procedures, conducted in accordance with the requirements of section 5(D)(2).

UU. Tank tightness test. "Tank tightness test" means a precision test, as defined under subsection LL. Tank tightness tests may include volumetric tank tightness tests or non-volumetric tank tightness tests. Tank tightness tests must be conducted in strict accordance with Appendix B and the manufacturer's test instructions and any protocols identified by an independent testing laboratory as required to meet the performance standards of subsection LL.

VV. Tank Warranty. "Tank warranty" means the length of time the manufacturer guarantees the tank against corrosion or structural failure.

WW. Underground oil storage facility. "Underground oil storage facility," also referred to as "facility," means any underground oil storage tank or tanks, as defined in subsection XX, together with associated piping and dispensing facilities located under any land at a single location and used, or intended to be used, for the storage or supply of oil, as defined in this rule. Underground oil storage facility also includes piping located under any land at a single location associated with above ground storage tanks and containing 10 percent or more of the facility's volume capacity

NOTE: Underground piping associated with an aboveground oil storage facility, regardless of percent of facility volume, must be installed, operated, maintained and abandoned in accordance with this rule and other requirements of 38 M.R.S.A, section 570-K governing aboveground oil storage facilities. Piping associated with oil terminals, most aboveground home heating oil facilities, and liquefied petroleum and natural gas facilities are exempt.

XX. Underground oil storage tank. "Underground oil storage tank" also referred to as "tank," means any container, 10% or more of its volume being beneath the surface of the ground and which is used, or intended to be used, for the storage, use, treatment, collection, capture or supply of oil as defined in this subchapter, but does not include any tanks situated in an underground area if these tanks or containers are situated upon or above the surface of a floor and in such a manner that they may be readily inspected. For the purpose of this rule, "underground oil storage tank" does not include underground propane storage tanks, underground oil water separators, storm water and emergency catch basins, and hydraulic lift tanks. Overflow tanks associated with oil-water separators are still considered an underground oil storage tank.

YY. Underground oil storage tank inspector. Any person certified under 32 ~~M.R.S.A.~~M.R.S., Chapter 104-A to inspect underground oil storage tanks and facilities.

ZZ. Underground oil storage tank installer. Any person certified under 32 ~~M.R.S.A.~~M.R.S., Chapter 104-A to install underground oil storage tanks and facilities.

AAA. Volumetric tank tightness test. "Volumetric tank tightness test" means a hydrostatic tank tightness test or precision test conducted at constant hydrostatic pressure at the bottom of the tank; where instrumentation noise is 3 to 5 times less than the minimum detectable leak rate; where temperature sensors provide adequate spatial coverage of tank; and where calibration of all instrumentation can be field checked. A volumetric or hydrostatic tank tightness test must be performed in accordance with Appendix B of this rule.

BBB. Waste oil. "Waste oil" means petroleum-based oil which, through use or handling, has become unsuitable for its original purpose due to the presence of impurities or loss of original properties. It must have sufficient liquid content to be free flowing. Waste oil is further defined in the Ddepartment's Waste Oil Management Rules, chapter 860, section 5.

CCC. Waste oil dealer. "Waste oil dealer" means any person in the business of transporting or handling more than 1,000 gallons of waste oil for the purpose of resale in a calendar month. A person, who collects or stores waste oil on the site of generation, whether or not for the purpose of resale, is not a waste oil dealer.

DDD. Waste oil tank. "Waste oil tank" means an underground oil storage tank used for the collection and storage of waste oil.

4. Registration

A. All underground oil storage tanks and facilities must be registered regardless of use, size or type of petroleum product stored therein and regardless of whether the tanks and facilities are in service or out of service.

B. A person may not install, or cause to be installed, a new or replacement underground oil storage tank, piping or facility without first having: 1) filed registration materials with the commissioner in accordance with subsection I, which materials have been deemed complete by the commissioner at least 10 business days but no more than 2 years prior to installation; 2) sent a copy of the materials and any subsequent amendments to the chief administrative official of the municipality having jurisdiction, or in the case of an unorganized township to the Maine Land Use Planning Commission (LUPC); 3) retained a copy to be made available on site to Ddepartment employees, agents or authorized representative and to municipal officials; and 4) paid the registration fee in accordance with subsection J.

C. No person may retrofit an existing underground oil storage facility with leak detection, overfill prevention equipment or other design or installation changes without first having filed a registration amendment in accordance with subsection M.

D. Registration materials that are not in conformance with this rule will not be accepted by the commissioner.

E. Written acknowledgment from the commissioner is acceptable evidence that a new, retrofitted or replacement tank or facility has been properly registered. The commissioner will determine the completeness of the registration materials and notify the registrant within 10 business days of receipt.

F. A person who installs, or causes to be installed, a new or replacement underground storage facility, or retrofits an existing facility, after 10 business days of the commissioner's receipt of the registration form, without first having received confirmation that the registration is complete, does so at the person's own risk. If it is determined that the facility was not installed in accordance with the regulations, the tank owner shall bring the facility into conformance with these regulations.

G. When an emergency situation occurs, the time requirement of subsection B may be waived by the commissioner upon petition of a facility registrant if: 1) the registrant can demonstrate to the commissioner that an emergency situation exists; and 2) the municipality or the Maine LUPC having jurisdiction has been notified by the registrant that the facility is being installed without the 10 day notice due to an emergency situation.

H. For existing facilities, the information required for registration must be submitted to the commissioner and a copy provided to the chief administrative official of the municipality having jurisdiction, or in the case of an unorganized township to the Maine Land Use Planning Commission (LUPC) in accordance with this section. No person may operate, maintain or store oil in an underground oil storage facility, unless each underground oil storage tank at that facility has been properly registered with the commissioner and a copy of the registration materials has been received by the chief administrative official of the municipality having jurisdiction, or in the case of an unorganized township to the Maine LUPC.

I. Registrations must be submitted on forms developed by the commissioner and containing the following information:

(1) The name, mailing address and telephone number of the owner;

(2) The name, mailing address and telephone number of the operator;

(3) The name, street address and telephone number of the facility;

(4) The name, mailing address and telephone number of an individual to contact with questions on the registration materials submitted;

(5) The location of the facility compatible with the State of Maine Geographic Information System (GIS). If a new facility or a facility expansion, adequate GIS location information to determine if the facility meets the siting restrictions of 38 M.R.S.A, section 1393 and Chapter 692 of the Department's rules;

(6) The location of the facility relative to a sensitive geologic area, including: (a) whether a private water supply exists within 300 feet of the tanks; (b) if any person owns, operates, or utilizes any private water supply within 300 feet of the tanks; (c) whether a public water supply exists within 1,000 feet of the tanks; and (d) whether the facility is located on a significant ground water aquifer, as defined by this chapter;

(7) The location of the facility relative to a 100 year flood plain as mapped by the Federal Emergency Management Agency (FEMA), or in the absence of such maps, as indicated by the presence of flood plain soils or the flood of record.

NOTE: Federal Emergency Management Agency maps are available at most municipal offices.

(8) The size of each tank and each internal storage compartments (if more than one) measured in gallons;

(9) The type of tank(s) and piping, including the materials used for construction and the type of pumping system;

(10) The type of product(s) stored in each tank;

(11) For a new or replacement facility or retrofitting of an existing facility, the installer's name, signature and certification number assigned by the Maine Board of Underground Storage Tank Installers;

(12) For a new or replacement facility, a site drawing of the facility containing the location of all new or replacement tanks, including: (a) distance and direction measurements that are sufficient to locate all underground portions of the facility, (b) details of secondary containment and interstitial space leak detection monitoring equipment, (c) locations of any monitoring wells; (d) all piping associated with the new or replacement facility;

(13) The best estimate of the date of installation for each existing tank and its warranty expiration date, if available;

(14) For new and replacement tanks, the expiration date of the tank manufacturer's warranty;

(15) For retrofitting an existing underground oil storage facility, the information required in paragraphs 1, 2, 3, 4, 8, 9, 11 and 12 above must be provided on the required registration amendment, as well as information on the type of leak detection, overfill prevention, or other equipment to be installed;

(16) Any other information required by federal law or regulation; and

NOTE: 1984 amendments to federal law (Subtitle I of the Resource Conservation and Recovery Act, Section 9002 *et seq.*) require an underground tank notification program and specify informational requirements for that program. Registration forms meeting all federal and state informational requirements are available from the Ddepartment. A tank owner is not

required to send a copy of the completed form to the U.S. Environmental Protection Agency in addition to the commissioner.

(17) Certification of the accuracy of the information by the tank owner or the owner's permanent full time employee. The certification cannot be signed by the installer or other subcontractor, unless the tank is owned by the installer.

J. Registration fees. The owner or operator of an underground oil storage facility shall pay an annual registration fee to the commissioner of $100 for each tank located at the facility, except that single family homeowners are not required to pay a fee for a tank at their personal residence. Registration payments must be paid on or before January 1st of every third calendar year upon receipt of a bill from the commissioner in order to maintain an effective registration for the upcoming three years. Registrations for new tanks shall include payment of the three year registration fee. Registration of a replacement facility shall not require that an additional fee be paid or accompany the registration amendment if the registration fee has been previously paid.

K. It is the responsibility of the facility owner to register all tanks. Where the facility owner cannot be determined or is disputed, it is the responsibility of the property owner to register all facilities and tanks located on his property.

L. Registration number. The commissioner will assign a unique registration number to each facility and to each tank at a facility. These registration numbers shall be provided to the owner or operator and shall be used for annual re-registration and in all subsequent correspondence regarding registered facilities and tanks. The owner or operator shall post the registration number or certificate in a prominent location at the facility.

M. Registration amendments. The owner or operator of an underground oil storage tank shall file an amended registration form with the commissioner and the Maine Land Use Regulation Commission or municipality having jurisdiction whenever there is a change in the information required pursuant to subsection I such amendments must be received by the commissioner within 10 business days of the change, except that amendments for installation of leak detection, overfill and spill protection, other underground oil storage facility equipment, the re-installation of tanks, or the retrofitting of secondary containment in an existing tank must be submitted at least 10 business days before installation. There is no fee for filing an amended registration. No amendment is required for repairs. No amendment is required for facility abandonment or closure but instead notice is provided to the commissioner in accordance with section 11 of this rule.

NOTE: A change in the facility ownership or operator requires the submission of a registration amendment.

N. Supplier notification requirement. Any person who sells a tank intended to be installed as an underground oil storage tank shall notify the purchaser in writing of the purchaser's registration obligations under this section.

O. Wherever these rules require that information or notice be submitted to the Ceommissioner or Ddepartment, failure to provide such notice or information in the manner required by these rules or providing false information constitutes a violation of these rules.

P. Notifications at time of facility sale or transfer. Prior to the sale or transfer of any real estate where an underground oil storage facility is located, the owner of the real estate shall file a written notice with the purchaser or transferee. The notice shall disclose the existence of the underground oil storage facility, its registration number or numbers, the real estate where the

facility is located, whether or not the facility has been abandoned in place and that the facility is subject to this rule, including the registration requirements of this section. A change in facility ownership requires the new owner or operator to amend the facility registration within 10 business days of the transfer of ownership by providing the commissioner written notice of the change, including the facility name and registration number; and the name, mailing address and telephone number of the new owner.

5. Regulation of facilities used to store motor fuel or used in marketing and distribution of oil

A. Applicability

(1) This section and its requirements apply to all facilities and tanks used to store motor fuel or used in the marketing and distribution of oil to others, except where noted below.

(2) Tanks supplying fuel to a generator are considered a motor fuel tank and are governed by this section.

(3) This section does not apply to field constructed tanks and airport aviation fuel pressurized hydrant piping, which must comply with sections 8 and 10 of this rule, respectively.

B. Design and installation standards for new and replacement facilities

(1) General design requirements

(a) All new and replacement tanks must be constructed of fiberglass reinforced plastic (hereafter "fiberglass"), cathodically protected steel, or other equally noncorrosive material approved by the commissioner. Piping and below ground ancillary equipment in contact with soil or water must be constructed of fiberglass, cathodically protected steel or other corrosion-resistant or noncorrosive materials approved by the commissioner.

(i) It is the responsibility of the facility owner to demonstrate to the satisfaction of the commissioner that the materials are noncorrosive or corrosion resistant and meet or exceed the performance standards listed below.

(ii) All new or replacement facilities must be listed and constructed in accordance with the standards contained in the following:

- Fiberglass Tanks –
  - Underwriters Laboratories Standard 1316, Glass-Fiber- Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols and Alcohol-Gasoline Mixtures; or
  - Underwriters Laboratories of Canada S615, Standard for Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids;
- Cathodically Protected Steel Tanks –
  - Steel Tank Institute (STI) sti-P3® Specification and Manual for External Corrosion Protection of Underground Storage Tanks ;
  - Underwriters Laboratories Standard 1746, Standard for External Corrosion Protection Systems for Steel Underground Storage Tanks;
  - Underwriters Laboratories of Canada S603, Standard for Steel Underground Tanks for Flammable and Combustible Liquids, and S631,

Standard for Isolating Bushings for Steel Underground Tanks Protected with External Corrosion Protections Systems;

- Steel Tank Institute (STI) Standard F841, Standard for Dual Wall Underground Steel Storage Tanks;
- National Association of Corrosion Engineers (NACE) International, RP-0285,Corrosion Control of Underground Storage Systems by Cathodic Protection, and Underwriters Laboratories Standard 58, Standard for Steel Underground Tanks for Flammable and Combustible Liquids; or
- Petroleum Equipment Institute RP-100;

- Steel Clad or Jacketed Tanks - UL 1746 , Steel Tank Institute (STI) Composite Tank Standard (F894-02), or Steel Tank Institute Specification F922, STI Specification for Permatank;
- Non-Metallic and Fiberglass Piping - Underwriters Laboratories Standard 971, Standard for Non-metallic Underground Piping for Flammable Liquids, or Underwriters Laboratory of Canada Standard S660, Standard for Non-metallic Underground Piping for Flammable Liquids
- Pipe Connectors - Underwriters Laboratories Standard 567;
- Flexible Connectors - Underwriters Laboratories of Canada Standard ULC/CAN -S633; and
- Steel Piping –
  - National Fire Protection Association Standards 30 or 31;
  - American Petroleum Institute Publications 1632, Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems;
  - National Association of Corrosion Engineers (NACE) International Standard RP- 0169, Control of External Corrosion on Underground or Submerged Metallic Piping Systems or NACE Standard 0285, Corrosion Control of Underground Storage Tank Systems by Cathodic Protection; or
  - Steel Tank Institute Recommended Practice R892, Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with Liquid Petroleum Storage and Dispensing Systems.

NOTE: Fiberglass clad steel and other steel composite tanks need not be provided with galvanic or impressed current cathodic protection if constructed with secondary containment and interstitial space monitoring in accordance with the standards of this subsection.

(iii) Impressed current cathodic protection systems must be designed by a corrosion expert and according to the standards described in the National Corrosion Engineers (NACE) International Recommended Practice RP 0285 and RP-0169, and installed under the supervision of a corrosion expert and by a Maine certified underground oil storage tank installer.

(b) All facility construction materials must be chemically and physically compatible with the product to be stored. For facilities storing gasoline with more than 10 percent ethanol or

storing more than 20 percent biodiesel, the facility owner must demonstrate that the facility is compatible with these oil products by one of the following methods:

(i) Underwriter's Laboratory or other nationally recognized independent testing laboratory certification or listing approved by the commissioner;

(ii) A written statement of compatibility from the equipment or component manufacturer; or

(iii) Another method demonstrating compatibility of facility components and equipment with the oil product to be stored approved by the commissioner.

Documentation of facility and oil product compatibility shall be maintained at the owner's place of business for the life of the facility component or equipment.

NOTE: Gasoline underground oil storage facilities with a monthly throughput of 10,000 gallons or more in any one month are required to install vapor control equipment in accordance with Chapter 118 of the Ddepartment's air quality rules.

(2) Leak detection

(a) All new and replacement facilities must be designed to provide secondary containment for all facility components routinely containing product, including tanks, product piping, other below ground ancillary equipment and product dispensers. New and replacement tanks and product piping must have continuous interstitial space monitoring. All piping sumps including dispenser sumps and pans shall be provided with continuous leak detection monitoring.

(b) Interstitial space monitoring of tanks and piping must be able to detect a loss or gain in the interstitial space from a leak in the primary or secondary containment structure of 150 gallons or more within 30 days of a leak or discharge.

(c) Suction piping designed and installed in accordance with this rule is not required to have secondary containment.

(3) Overfill and spill prevention equipment. Facility owners and operators shall take measures to prevent releases due to spilling or overfilling. New and replacement facilities must include:

(a) A liquid tight spill catchment basin of a minimum capacity of 15 gallons for each tank fill, which is sealed around the fill pipe and will collect any spillage during product delivery. When only the overfill bucket is retrofitted or replaced, the largest capacity catchment basin feasible from 5 to 15 gallons must be installed.

(b) Overfill prevention equipment that will:

(i) Automatically shut off flow into the tank when the tank is no more than 95 percent full;

(ii) Alert the transfer operator when the tank is no more than 90 percent full by restricting flow into the tank or triggering a high-level audible alarm (vent whistles are not considered a high-level alarm); or

(iii) Restrict flow 30 minutes prior to overfilling, alert the operator with a high level alarm one-minute before overfilling or automatically shut off flow into the tank so that none of the fittings located on the top of the tank are exposed to product.

NOTE: In accordance with Petroleum Equipment Institute Recommended Practice 100, there are a number of restrictions on the use of vent float valves, including vent float valves that restrict flow may not be used on a suction system or where pump-off unloading is used.

(c) Sumps or pans of adequate dimensions must be located and installed under all product dispensers in such a manner as to collect all product leaks and discharges from dispenser piping and equipment to prevent oil reaching the environment.

(d) Bulk plants and other distribution facilities where oil is transferred to tank trucks or railroad tank cars must include a system to prevent oil spills and overfills from reaching the environment. Installation of a system to catch or direct the flow of loading area spills and overfills is required. Any such system must be able to hold at least the maximum capacity of the largest single compartment of a tank car or tank truck loaded or unloaded at the facility, and must include one of the following:

(i) An impermeable curbed loading or unloading pad sloped or connected to a catchment basin, an underground oil storage tank or other containment system which in combination provide sufficient containment capacity to meet this rule;

(ii) An impermeable curbed loading or unloading pad sloped or connected to an oil water separator discharging to a public wastewater treatment facility or the waters of the State, licensed by the Ddepartment pursuant to 38 ~~M.R.S.A.~~M.R.S., sections 413 and 543; or

(iii) Other loading or unloading rack overfill containment system approved by the commissioner.

Subsurface discharges of potentially oil contaminated storm water is prohibited unless licensed by the Ddepartment in accordance with 38 ~~M.R.S.A.~~M.R.S., sections 413 and 543

(4) General facility installation requirements

(a) No person may install an underground oil storage facility or a portion thereof unless that person is a properly certified underground oil storage tank installer with the appropriate class of certification in accordance with 32 ~~M.R.S.A.~~M.R.S., section 10001 *et seq.*, and has paid the required certification fee.

NOTE: The Maine certified installer shall be present and supervising all aspects of the UST facility installation.

(b) An underground oil storage tank installer may not install an underground storage facility if the installer has been placed on inactive status or if the installer's certification has been suspended or revoked under 32 ~~M.R.S.A.~~M.R.S. §10015, and has not been reinstated.

(c) An underground oil storage facility may not be installed unless the entire facility has been registered in accordance with section 4 of this rule.

(d) An underground oil storage tank or piping may not be installed within one foot of the closest bedrock.

(e) All phases of the installation of an impressed current cathodic protection system must be conducted under the direct supervision of a corrosion expert. The tank, piping and other portions of the facility other than the impressed current system may be installed by a Maine certified underground oil storage tank installer without such supervision.

(f) All new and replacement steel tanks and piping with cathodic protection must be monitored within 6 to 12 weeks of completion of installation by a cathodic protection tester in accordance with Appendix A of this rule.

(g) Owners of new and replacement facilities shall ensure that the installer(s) provides certification to the commissioner within 30 days of completion of installation; that the facility's materials, design and installation are in compliance with the requirements of this rule. This certification shall be provided in writing on a form provided by the commissioner and signed by the certified installer responsible for the installation.

(h) For all installations and replacements of tanks and piping after January 1, 2014, the facility owner shall maintain a to-scale, as-built drawing of the facility at the facility or the owner's primary place of business. The drawing is to show the location of tanks, piping, dispensers and other major underground facility components to facilitate safe facility maintenance, repairs, replacement and remediation.

(i) No used or previously installed fiberglass, cathodically protected steel, or other tank meeting the requirements of section 5(B) may be reinstalled, unless the owner has supplied the commissioner with satisfactory documentation that the manufacturer will warranty that tank against internal and external corrosion and structural failure for a period of at least 10 years, after which the tank or piping must be properly abandoned in accordance with section 11 of this rule. Reinstallation of a tank requires an amendment of the facility registration in accordance with section 4(M) of this rule. The warranty documentation shall accompany the submission of the registration amendment. Used piping may not be reinstalled.

(5) Installation requirements for new and replacement tanks

(a) New and replacement tanks and facilities must be installed in conformance with the requirements of Appendix D, except field constructed tanks which must be installed in accordance with section 8 of this rule.

(b) If a tank is replaced, all associated underground piping not meeting the design requirements of this chapter shall be replaced, or where allowed by this chapter upgraded to meet the standards of this chapter. If product piping is replaced and structural damage to the associated tank has occurred, impairing its physical integrity, the tank also must be replaced or repaired. Any replacement tank must be designed and installed in accordance with this rule. Repairs of damaged fiberglass, cathodically protected steel and other commissioner approved noncorrosive material tanks may only be made if conducted in accordance with sections 5(D) (16) or (17). Tanks that cannot be repaired must be abandoned in accordance with section 11.

(6) Installation requirements for new and replacement piping

(a) All underground piping must be designed and installed in conformance with the requirements of Appendix E, except airport aviation fuel pressurized hydrant piping, which must comply with section 10 of this rule.

(b) All underground piping in contact with soil or water must be constructed of fiberglass or cathodically protected steel. Other noncorrosive materials may be used when approved by the commissioner.

(i) It is the responsibility of the tank owner to demonstrate to the satisfaction of the commissioner that the materials are noncorrosive.

NOTE: Galvanized piping does not meet the requirement for corrosion protection of tanks or piping, and does not meet the criteria for cathodic protection as stated in the National Association of Corrosion Engineers International, Recommended Practice 0285.

(ii) All new or replacement non-metallic product piping must be listed by Underwriters Laboratories for underground use. Cathodically protected piping must be constructed and installed in conformance with the National Association of Corrosion Engineers (NACE) International, Recommended Practices, Publication No. 0169, or Petroleum Equipment Institute (PEI) Recommended Practice RP100.

(iii) Other than field coating limited to vertical fill pipes, vertical vent risers and piping joints, field coating of steel pipe for product delivery lines is prohibited except where supervised and inspected by a corrosion expert.

(c) Product lines must be installed in a single trench between the tank area and each pump island. Underground vent lines must be installed in a single trench. All product and vent lines shall slope toward the tank or a sump with leak detection at a minimum slope of 1/8 inch per foot.

NOTE: The Ddepartment recommends placing colored, plastic tape in the excavation trench for FRP and plastic piping runs to warn excavator operators and to help locate piping in the future.

(d) Secondary containment and cathodic protection of vertical, direct drop fill pipes is not required if the fill pipe is constructed of Schedule 40 steel and is uniformly coated with a minimum of 1/8 inch of fiberglass resin, bitumastic coating or epoxy coating. The pipe surface must be properly prepared and the coating allowed to cure. Offset fill pipes require secondary containment and interstitial leak detection.

(e) Piping shall be installed such that in-line piping leak detectors and overfill prevention equipment operate in accordance with manufacture specifications and the requirements of this rule.

(6-A) Replacement of the flexible primary product piping in a double-walled piping system. Primary piping that is part of double-walled piping may be replaced without excavation and removal of the entire piping run when there is no evidence of a possible piping discharge and when the following conditions and requirements are met:

(a) Flexible primary piping can be removed by pulling the entire length of old piping through the four (4) inch diameter secondary containment or chase piping, and can be replaced with new double-walled piping fed through the existing chase piping;

(b) The original chase piping may only be used as the conduit for the replacement piping, not as secondary containment;

(c) The facility is equipped with dispenser, tank top and piping sumps installed in accordance with section 5(B);

(d) The replacement piping is double-walled with an interstial space for leak monitoring, and is installed in accordance with all applicable requirements of this rule, including Appendix E;

(e) The facility registration is amended in accordance with section 4(M); and

(f) A modified site assessment is conducted and submitted to the commissioner in accordance with section 11(A) and Appendix P of this rule.

(7) Installation requirements for leak detection and overfill/spill prevention equipment

(a) Leak detection and overfill/spill prevention alarms and shutoff equipment must be installed and operating prior to the start of the facility's operation and in accordance with manufacturer specifications, including proper calibration of electronic equipment.

(b) Piping, tank and dispenser sumps and pans must be liquid tight to an elevation at least three (3) inches above the liquid level required to activate the leak detection sensor.

(c) Penetrations of a sump for a piping or other sump entrance must be three (3) or more inches above the leak detection sensor activation level to ensure meeting the above tightness standard. This requirement does not apply to the bottom access hole in a tank sump for the installation of a pressurized product pump or to provide access to the tank for suction dispenser piping.

C. Retrofitting requirements for existing facilities

(1) Existing facility owners shall retrofit or institute a leak detection method, capable of detecting a leak in the tank, product piping and other portions of the facility normally containing product. Such leak detection must be capable of detecting a leak within 30 days of occurrence with a probability of detection of at least 95 percent and a 5 percent or less probability of a false positive as determined by an independent testing laboratory, using U.S. Environmental Protection Agency approved testing protocols. Leak detection methods found to meet the above performance standards and tested using other protocols approved by nationally recognized independent testing organizations may be used. Examples include, but are not limited to, the American Society of Testing and Materials and the National Work Group on Leak Detection Evaluations. Acceptable methods are listed in paragraph 2 below. Facility owners shall have leak detection in operation by December 1, 1990, for facilities with pressurized piping and by December 1, 1991, for facilities with suction piping. Existing facilities with secondary containment with interstitial space monitoring for all tanks, product piping and associated below ground ancillary equipment as well as tanks installed with an impervious barrier sloped to a monitoring sump in accordance with Appendix G are considered to meet this requirement. Facilities with suction piping installed such that the

piping is sloped so that the contents of the pipe will drain back into the tank if suction is lost, and only one check valve is located in a piping line with the check valve located directly below and as close as possible to the pump, may have until December 1, 1993 to implement leak detection. Where an existing tank has leak detection meeting the requirements of this rule, the associated product piping must be provided leak detection in accordance with the time schedule and other provisions of this subsection. If the mandatory removal date for a nonconforming facility under 38 ~~M.R.S.A.~~M.R.S., section 563-A, precedes the leak detection compliance schedule outlined above, the facility owner shall comply with the removal schedule in section 563-A.

(2) Acceptable leak detection methods for existing facilities are any one of the following:

(a) Monthly reconciliation of daily product inventory data in accordance with Appendix I and an annual precision test of all tanks and piping. All facilities intending to use or using this method must install drop tubes in the fill pipes. An annual statistical inventory analysis, conducted in accordance with section 5(D)(2) or other commissioner approved methods of facility leak detection capable of detecting a leak rate of 0.1 gallons per hour with a 95 percent probability of detection and 5 percent probability of false alarm, may be substituted for a precision test for the purposes of this paragraph. In addition, all pressurized piping must be retrofitted with an automatic in-line leak detector capable of detecting a leak of 3 or more gallons per hour at 10 pounds per square inch line pressure within 1 hour of its occurrence with a 95 percent probability and a 5 percent probability of false alarm.

NOTE: Use of daily inventory data and annual statistical inventory analyses are unlikely to provide results meeting the performance standards of section C(1) above for power generator or high volume (average monthly throughput exceeding 75,000 gallons) tanks. Another method of leak detection is recommended.

(b) Continuous or manual monitoring for free product in ground water monitoring wells installed in the excavated area, and as close as technically feasible around the tank or tanks, accompanied by one of the methods listed below in paragraph 2(e) of this subsection to detect a leak from piping not installed in accordance with section 5(B)(2). Continuous monitoring devices and manual monitoring methods must be capable of detecting the presence of at least one-eighth inch of free product on the ground water surface in monitoring wells. Monitoring wells must be installed in accordance with Appendix F and the following requirements:

(i) The ground water table is not more than 20 feet from the ground surface; and

(ii) Soils between the tank and monitoring wells shall consist of gravel, coarse to medium sands, or other permeable materials with a hydraulic conductivity of not less than 0.01 centimeters per second.

(c) Continuous vapor monitoring in the unsaturated soil zone of all elements of the facility, using sufficient sampling points to detect a leak or discharge of oil from any point in the facility. Vapor monitoring must meet the following requirements:

(i) The method shall test for oil vapors or tracer compounds within the soil gas of the excavation zone;

(ii) Materials used as backfill are gravel, sand or crushed rock and are sufficiently porous to readily allow diffusion of vapors from leaks or discharges into the excavation area, with a hydraulic conductivity of 10^{-3} cm/second or greater;

(iii) The stored oil product or any tracer compound placed in the facility is sufficiently volatile to result in a vapor level that is detectable by the monitoring devices located in the excavation zone. All tracer compounds shall be approved by the commissioner prior to use;

(iv) The measurement of vapors by the monitoring device is not rendered inoperative by the ground water table, rainfall, or soil moisture or other known interferences so that a leak or discharge could go undetected for more than 30 days. The ground water table shall be below the tank or piping excavation zone;

(v) The level of background contamination in the excavation zone or elsewhere in close proximity to the facility will not interfere with the method used to detect leaks or discharges;

(vi) The excavation zone is assessed by a Maine certified installer or the equipment manufacturer's representative to ensure compliance with the suitability requirements above in this paragraph and to establish the number and locations of vapor monitoring wells or ports such that leaks or discharges will be detected from any portion of the facility that routinely contains product. At a minimum, one vapor monitoring well must be located within 5 feet of each pump and dispenser, and at each end of each tank;

(vii) Vapor monitoring wells or ports are clearly marked and secured to avoid unauthorized access or tampering; and

(viii) All monitoring components shall meet manufacturer's specifications and shall be installed according to manufacturer specifications.

(d) Automatic tank gauging, that can detect a 0.2 gallon per hour loss, conducted at least once every 30 days, and monitoring of associated existing piping, by implementing one of the leak detection methods listed below in paragraph C(2)(e) of this section.

(e) When an existing tank is to be monitored for leaks by ground water monitoring wells or by automatic in-tank gauging, associated existing piping must be monitored for leaks using one of the following methods:

(i) Secondary containment with continuous interstitial space monitoring;

(ii) For pressurized piping, either an automatic mechanical in-line leak detector and an annual piping line tightness test; or an electronic in-line leak detector capable of detecting a piping leak of 0.1 gallons per hour; or

(iii) Replacement with self monitoring suction piping designed and installed in accordance with requirements for new and replacement piping in this section and Appendix E.

(f) Where only existing piping requires leak detection, one of the following methods must be used:

(i) Secondary containment with continuous interstitial space monitoring;

(ii) For pressurized piping, an automatic mechanical in-line leak detector, and an annual piping line tightness test; or an electronic in-line leak detector capable of detecting a 0.1 gallon per hour leak;

(iii) Replacement with self monitoring suction piping designed and installed in accordance with requirements for new and replacement piping in this section and Appendix E.

(g) Other facility leak detection systems approved by the commissioner that can detect at least a 0.2 gallon per hour leak rate with at least a 95 percent probability and a 5 percent or less chance of false alarm, as determined by an independent testing laboratory using U.S. Environmental Protection Agency (EPA) approved testing protocols, or by other testing protocols approved by a nationally recognized independent testing organization.

(3) Overfill and spill prevention equipment must be retrofitted at all facilities constructed of fiberglass, cathodically protected steel or other noncorrosive materials approved by the commissioner in accordance with section 5(B) by December 22, 1998.

(4) Facilities that do not comply with the retrofitting requirements of this subsection shall cease operation on the date upon which retrofitting was required, and close in accordance with section 11 of this rule.

D. Monitoring, maintenance, operating and inspection requirements

(1) Daily inventory requirements. Except as provided in paragraph 3 below, the owner or operator of a facility shall maintain and reconcile daily inventory for each day that oil is being added to or withdrawn from the facility or tank.

(a) Daily inventory must be conducted so as to be able to detect a leak or discharge of at least 1 percent of throughput on a monthly basis and must include all the following:

(i) The daily measurement of product and water levels in each tank for each day product is added or removed. Measurement of product levels may be made by a stick gauge reading. Water level measurements may be made by using water paste and a gauge stick. Electronic or mechanical level measuring devices which measure product and water levels are also acceptable. Product level and water levels are to be measured to the nearest one-eighth of an inch (1/8").

(ii) The measurement of product levels, before and after any deliveries.

(iii) Product dispensing is metered and recorded within Maine Department of Agriculture's weight and measure standards or an accuracy of six (6) cubic inches for every five (5) gallons of product withdrawn.

(iv) Daily reconciliation of tank measurements and pump meter readings shall be performed to determine daily loss or gain of product. The reading of pump meter readings and product delivery receipts shall not in itself constitute adequate inventory records.

(v) A log book shall be kept at the facility which includes each measurement and the initials of the individual taking and recording the pump meter readings and the actual product and water level measurements.

(b) All inventory data must be summarized monthly and must include the total cumulative loss or gain for the preceding month.

NOTE: See Appendix I for an example of a daily inventory data sheet. Practices described in the American Petroleum Institute Publication 1621, "Recommended Practice for Bulk Liquid Stock Control at Retail Outlets", may be used, where applicable, as guidance in meeting the daily inventory requirements of this rule.

(2) Statistical Inventory Analysis

(a) Except as provided in paragraph 3 below, the owner of each tank shall be responsible for having an annual statistical inventory analysis performed for each of the owner's tanks, and reporting the results of the analysis to the commissioner on or before July 1 of each year. The analysis must include an evaluation of the various sources of error present in daily inventory records, including the following:

(i) Identifying and removing large measurement errors;

(ii) Identifying unrecorded additions or removals of oil;

(iii) Detecting errors in metering oil from the tank;

(iv) Estimating the potential for temperature differential to induce spurious trends or conceal real trends;

(v) Establishing that residual errors contain no systematic components and reflect n the normal errors of measurement;

(vi) Evaluating the quality of the data provided and the adequacy of operator procedures to detect leaks if present;

(vii) Identifying persistent daily physical loss which could be consistent with leakage; and

(viii) Determining values and dates for any delivery errors and any unexplained one time gains or losses.

(b) The report of the analysis results also must contain the following facility information:

(i) Name of the facility;

(ii) Municipality in which the facility is located;

(iii) Name of the owner;

(iv) Registration numbers assigned by the commissioner to the facility and to the tanks;

(v) Certification by tank owner and the agent conducting the analysis that the results are true and accurate to the best of his or her knowledge; and

(vi) Dates of inventory data used in the analysis.

(c) The requirement for statistical inventory analysis must be met only if the inventory records submitted are capable of being analyzed with conclusive results. The following attributes constitute cause for invalidation of an analysis:

(i) Excessively large and other clearly erroneous measurements of inventory-on-hand;

(ii) Excessively large unexplained removals or additions of product;

(iii) Failure to take daily readings of inventory-on-hand;

(iv) Excessive data recording errors; or

(v) Evidence of the use of an incorrect conversion chart or persistent faulty gauging.

(d) A statistical inventory analysis resulting in an inconclusive finding due to poor quality product inventory readings, pump error, tank tilt or other reasons must be redone, following correction of likely errors, using new daily inventory data and submitted to the commissioner within 75 days of receipt of the initial statistical analysis.

(e) All tank owners shall maintain the results of all annual statistical inventory analysis for each underground storage tank in accordance with section 5(D) (19). Only statistical inventory analyses by methods meeting the definition and performance standards of section 3(TT) shall be accepted by the commissioner.

(3) Exemptions from daily product inventory and annual statistical inventory analyses. The following tanks are exempt from the requirements of paragraphs 1 and 2 above: tanks supplying fuel to a power generator; tanks with an average monthly throughput exceeding 75,000 gallons over the prior 12 months; double-walled tanks with continuous interstitial space leak detection; and existing tanks constructed of fiberglass, cathodically protected steel or other commissioner approved noncorrosive material and which are monitored for leaks by a method able to detect a product loss or gain of 0.2 gallons or less per hour with a 95 percent or greater level of confidence. These exemptions are only applicable if the following conditions are met.

(a) Product piping associated with the tank has secondary containment, a self-monitoring suction product delivery system or another form of commissioner approved leak detection able to reliably detect leaks of 0.2 gallons or more per hour; and

(b) The tank and piping are installed and operated in accordance with the other requirements of this rule.

(4) Operation and Monitoring Requirements for Galvanic Cathodic Protection Systems

(a) All galvanic cathodic protection systems must be operated and maintained to continuously provide adequate corrosion protection to the underground metal components of the facility routinely storing or containing oil, and in a manner that ensures no leaks occur during the operational life of the facility. Adequate corrosion protection is indicated by a cathodic protection test reading of at least negative 0.85 volts. Steel composite tanks without secondary containment and continuous interstitial space monitoring must comply with this requirement.

(b) Cathodically protected steel underground storage tanks or piping that fail to achieve the minimum level of adequate corrosion protection of negative 0.85 volts or less within six

(6) months after a failing reading shall be properly abandoned in accordance with section 11 of this rule.

(c) All cathodically protected tanks and piping must have an accurate structure to soil potential reading performed upon installation or repair and annually thereafter. The cathodic protection testing must be conducted by a qualified certified underground tank installer or inspector. A tank inspector shall also be approved as a cathodic protection tester in accordance with Appendix M.

(d) When repairs to cathodic protection systems are made or underground work is performed at the site, the cathodic protection shall be monitored 6 to 12 weeks after such work has been completed, to assure that the system is functioning properly.

(e) Monitoring must be performed in accordance with the requirements of Appendix A.

(f) Repairs of a galvanic cathodic protection system must be completed by a Maine Certified Underground Oil Tank Installer within 180 days of a failed test, and in accordance with section 5(D)(17).

(g) The results of all monitoring and repairs must be kept in a logbook in accordance with section 5(D) (19).

(5) Monitoring Requirements for Impressed Current Cathodic Protection Systems

(a) All impressed current cathodic protection systems must be operated and maintained to continuously provide adequate corrosion protection to all underground metal components of the facility routinely storing or containing oil, and in a manner that ensures that no leaks occur during the operating life of the facility. Adequate corrosion protection is indicated by cathodic protection tests, conducted in accordance with Appendix A.

(b) A monthly voltage reading and inspection of the rectifier meter on all facilities must be performed using the impressed current system of corrosion protection. All readings, inspection results and repairs must be recorded in a logbook, which must be kept in accordance with the record keeping requirements of 5(D) (19).

(c) A certified installer, or a certified inspector who has also been certified in accordance with Appendix M of this rule as a cathodic protection tester, shall measure the structure to soil and structure-to-structure potentials, the rectifier voltage and current output as part of an on-site test and inspection at least once per year.

(d) Repairs to an impressed current cathodic protection system must be supervised by a corrosion expert and adhere to NACE International Standards RP285 and 0169.

(6) Operation, maintenance and testing of in-line leak detectors. In-line leak detection devices must be maintained to properly operate in accordance with this rule at all times while the piping contains oil. The facility owner or operator shall ensure all in-line leak detectors are tested for proper operation in accordance with manufacturer instructions upon installation and at least once each calendar year thereafter. Tests of in-line leak detectors must be conducted by a certified underground oil storage tank installer, or inspector who is also certified by the manufacturer of the equipment, where such manufacturer certification is available. Improperly operating leak detectors must be repaired or replaced by a certified underground oil storage tank installer, within 30 days. A log of all tests, maintenance, and repairs must be

maintained by the owner in accordance with the record keeping requirements of section 5(D)(19).

(7) Overfill and spill prevention

(a) The facility owner or operator shall ensure that a representative of the owner, operator or oil transporter is physically present during and monitors all product deliveries or transfers.

(b) Operation, maintenance and testing of overfill and spill prevention equipment. All overfill and spill prevention equipment must be maintained to properly operate at all times while the facility is in operation, and in accordance with the requirements of this rule. Overfill and spill prevention alarms and shutoff systems must be tested at least annually and recalibrated, if necessary, in accordance with manufacturer's instructions. Testing and recalibration must be conducted by a Maine certified underground oil tank installer, or inspector who is also certified by the manufacturer of the equipment, if such manufacturer certification is available. Repairs of automatic overfill and spill prevention alarm and shutoff systems must be done by a Maine certified underground oil storage tank installer, within 30 days. A log recording all tests, maintenance and repairs must be maintained by the owner in accordance with section 5(D)(19). Spill buckets must be kept clean of water and debris such that the buckets' full capacity is maintained and available to catch overfills. Spill buckets must be inspected and, if necessary, cleaned before and after each product delivery.

Loading rack catchment and containment systems at new and replacement bulk plants or other distribution facilities shall be maintained by the owner or operator in accordance with API Standard 2610 and to capture an overfill or spill incident of at least 100 gallons.

(c) All tanks may only be filled by way of a liquid tight connection from the delivery vehicle in accordance with NFPA 30-A section 9.2.

(d) The use of fuel delivery equipment or methods that bypass or prevent overfill equipment from functioning properly is prohibited.

(8) General operation, maintenance and testing of leak detection equipment requirements

(a) All leak detection equipment must be maintained to operate at all times while the facility contains oil, and in accordance with the performance standards of this rule and the manufacturer's instructions.

(b) Continuous automated or electronic leak detection equipment must be tested at least annually and recalibrated if needed. Testing and recalibration must be conducted in accordance with the manufacturer's instructions by either a Maine certified underground oil storage tank installer, or inspector who is also certified by the manufacturer of the equipment, if such manufacturer certification is available.

(c) Repairs of continuous, automated or electronic leak detection equipment must be conducted within 30 days by a Maine certified underground oil storage tank installer. If the leak detection system is not properly operating within 30 days of discovery of a problem, the commissioner must be notified in writing by the owner or operator.

(d) A log of all tests, maintenance and repairs must be maintained by the owner in accordance with section 5(D)(19).

(e) Test records must include at a minimum the following information: facility name, address and registration number, tank(s) and piping tested (tank number), test method used; test date(s); test's leak detection threshold; date and time of last product delivery; length of any applicable waiting period; product level during test, and the length of time of the test.

(9) Automatic tank gauging (ATG) Systems

(a) Testing must be conducted at a tank capacity or a range of tank capacities as specified in the equipment manufacturer's instructions.

(b) ATG systems must monitor at the tank bottom for water level gains of more than 1/2 inch.

(c) ATG systems must be operated with a back-up system to preserve test data in the event of a power outage.

(d) ATG systems must print or record test results at least once every 30 days. Test records must be maintained in accordance with section 5(D)(19) and must include the test dates; the tests' leak detection threshold; water levels; the date and time of the last prior product delivery; the length of any applicable waiting period; product level; and test length.

(10) Precision testing

(a) Results of all annual precision tests conducted to meet the annual leak detection requirements of section 5(C)(2)(a) for an existing facility and the requirements of section 5(F) for operating beyond the tank warranty, must be submitted to the commissioner or the commissioner's representative by the facility owner by July 1 of each year. Precision test results must also be maintained and be available for inspection in accordance with section 5 (D)(19) of this rule. Each test record must contain the following information: facility name, address, and registration number; tank(s) and piping tested (tank number); tank volume and product stored; test method used; test date; test's threshold; length of waiting period; product level during test; the actual length of time to conduct test; and the name and certification number of the supervising certified installer, if required to be present by Appendix B,

(b) The commissioner may require precision testing as defined in this rule of all tanks and piping at a facility showing evidence of a possible leak, as defined in section 5(D)(11) below, or where an actual oil discharge has been discovered.

(c) Results of precision tests conducted in follow-up to evidence of a possible leak and in accordance with section 12(B) of this rule, must also be submitted to the commissioner by the person conducting the test.

(11) Evidence of a possible leak or discharge

(a) Evidence of a possible leak or discharge are indications of a possible facility leak or discharge requiring further investigation to determine if an actual discharge or leak has occurred, and includes, but is not limited to, any one of the following:

(i) Monitoring results from a facility's leak detection equipment or method indicating a possible leak, release or discharge.

(ii) Any unexplained loss or gain of 1.0 percent of the throughput of each storage system over a 30-day period, as indicated by the recording and reconciliation of daily inventory records.

(iii) Failure of a piping line tightness test, as defined in section 3(JJ) or a tank tightness test as defined in section 3(UU), which indicate a leak of 0.1 gallons per hour or greater.

(iv) Failure of a precision test as defined in section 3 (LL), other than a piping or tank tightness test which indicates a loss or gain of 0.1 gallons per hour or greater.

(v) Unexplained losses detected through a statistical analysis of inventory records or an indication in the statistical inventory analysis that the inventory data provided were insufficient to perform an accurate analysis.

(vi) The excessive accumulation of water in a tank evidenced by a rise in water level of greater than one-half inch (1/2") for an 8 to 12 hour period, except where the cause of the water accumulation is storm water runoff intrusion and is promptly corrected.

(vii)Presence of water-product phase separation in a single-walled tank containing ethanol.

(viii) Reduced flow in a remote pumping system equipped with an in-line leak detector, unless the system returns to normal operating flows within one hour of the first discovery that day.

(ix) Pump hesitation, vibration, meter stripping or air elimination, attributable to a loss of prime for product lines, which operate under a suction system.

(x) Evidence of the presence of oil or water entering into the interstitial space of a secondary containment facility, or a significant drop in the liquid level of a hydrostatically monitored interstitial space as specified by the tank or leak detection equipment manufacturer's instructions.

(xi)Discovery of oil or an oil sheen in an overfill bucket, piping sump or dispenser sump, whether or not cleaned up.

(12) Leak or discharge reporting requirements

(a) A tank owner or operator shall report to the commissioner as soon as possible, but no later than within 24 hours any evidence of a possible leak or discharge of oil, including but not limited to those listed in section 5(D)(11).

(b) A certified underground tank installer or inspector finding evidence of a possible leak or discharge of oil must report it to the facility owner or operator, and the commissioner, as soon as possible, but no later than within 24 hours of discovery.

(c) Actual oil leaks and discharges, whether or not cleaned-up, shall be reported to the commissioner by the facility owner or operator, and the certified tank installer or inspector within two (2) hours of discovery. This 2 hour reporting requirement applies to, but is not limited to, the reporting of the following:

(i) Overfills not fully captured or contained by an overfill bucket or sump;

(ii) Other spills;

(iii) Visual or olfactory evidence of oil in soil or water including, but not limited to, in a tank or piping excavation or facility ground water monitoring well;

(iv) Oil or oil vapors on or under abutting properties, including nearby utility conduits, sewer lines, buildings, and drinking water supplies; and

(v) Soil and water contamination as defined in section 3(I) of this chapter, setting forth the definition of "contamination".

NOTE: TO REPORT A LEAK, SPILL OR OTHER DISCHARGE OF OIL, CALL TOLL FREE 1-800-482-0777.

(d) Notwithstanding the above, discharges of 10 or less gallons of oil that occur on the facility premises and above the surface of the ground onto a concrete or asphalt paved surface, and not reaching ground water or surface waters of the State need not be reported to the commissioner if the owner or operator complies with all of the following requirements:

(i) The discharge is fully cleaned up within 24 hours of discovery.

(ii) A written log is maintained at the facility or the owner's place of business in accordance with section 5(D)(19), recording for each discharge the date of discovery, its source, the general location of the discharge on the facility, the date and method of cleanup, and the signature of the facility owner or operator certifying the accuracy of the log.

(iii) The spill log must be made available upon request within 24 hours for inspection by personnel and authorized agents of the commissioner and the municipality.

(d) Under 38 ~~M.R.S.A.~~M.R.S., section 568(4)(a), any person who causes or is responsible for a discharge from an underground oil storage facility is not subject to any fines or civil penalties for the discharge if the person promptly reports and removes that discharge in accordance with the rules and orders of the commissioner and the board, except that a person who violates any laws or rules administered by the D~~d~~epartment under 38 ~~M.R.S.A.~~M.R.S., Chapter 3 subchapter 2-B is subject to fines and penalties.

(13) Product compatibility. Only oil and petroleum products chemically and physically compatible with the materials, from which the tank, piping and other components of the facility routinely containing product are constructed, may be stored. For facilities storing gasoline with more than 10 percent ethanol or storing more than 20 percent biodiesel, the facility owner must ensure that the facility is compatible with these oil products by one of the following methods:

(a) Underwriter's Laboratory or other nationally recognized independent testing laboratory certification or listing approved by the commissioner;

(b) A written statement of compatibility from the equipment or component manufacturer; or

(c) Another method demonstrating compatibility of facility components and equipment with the oil product to be stored and approved by the commissioner.

Written documentation of facility and oil product compatibility shall be maintained at the owner's place of business for the life of the facility component or equipment.

(14) Manual sampling of ground water-monitoring wells

(a) Where monitoring wells have been installed at an underground oil storage facility and are intended to meet the leak detection requirements of section 5(C), the owner or operator must sample those wells weekly by withdrawing a sample from each monitoring well on site and examining the sample visually for a sheen or other evidence of oil, and by smelling the sample for the odor of "oil." Weekly sampling shall be performed in accordance with the procedures required in Appendix H.

(b) Records of each sampling must be maintained in a logbook in accordance with section 5(D)(19). The logbook must include the date and time of sampling, the initials of the person performing the sampling, and a record of the inspection of all monitoring well samples. The logbook must be available upon request to any Ddepartment employee, agent or authorized representative and to any municipal official.

NOTE: A sample log sheet is provided in Figure 3 of Appendix H.

(c) Upon discovery of any evidence of a possible leak as defined in section 5(D)(11) of this rule, the owner of the tank shall cause notice to be given to the commissioner as soon as possible but not later than 24 hours from the time of discovery. The tank owner shall then obtain samples from all ground water monitoring wells for laboratory analysis in accordance with the procedures required in Appendix H. Investigation and corrective action requirements of section 12 of this rule must be followed.

(d) Where laboratory analysis is required, all monitoring wells must be sampled and the samples analyzed in accordance with the requirements of Appendix S of this rule. The monitoring wells must be sampled and all samples must be handled in conformance with the requirements of Appendix H. The results of all hydrocarbon analysis must be maintained in accordance with section 5(D)(19).The detection of hydrocarbons in concentrations exceeding the laboratory reporting limits must be reported to the commissioner by the facility owner or operator as soon as possible, but not later than 2 hours from the time of discovery.

(15) Manual interstitial space monitoring

(a) Where secondary containment is provided for leak detection without continuous monitoring, the owner or operator shall sample the interstitial space once per week for evidence of a possible leak or discharge of oil, and the inflow of ground water.

(b) The interstitial space of double walled tanks must be monitored in accordance with the instructions of the tank or leak detection equipment manufacturer.

(c) When piping with secondary containment sloped to a monitoring sump or man-way has been installed, and continuous electronic monitoring has not been installed, the owner or operator shall physically check the man-way or sump weekly for visual evidence of oil.

(d) For facilities where secondary containment is provided by an excavation liner, the monitoring wells must be sampled weekly for evidence of a possible leak or discharge in accordance with the procedures for monitoring well sampling outlined in section 5(D)(14).

(e) A record of each inspection or sampling event must be maintained in a logbook in accordance with section 5(D)(19). The log must include the date and time of each monitoring event, what was found, and the initials of the person doing the monitoring.

(16) Interior relining of new and existing facilities

(a) Tanks may be relined provided that, prior to lining, the tank has passed a precision test and is free of perforations, except fiberglass tanks that have failed may be relined or repaired if the cause of failure will be completely repaired to the satisfaction of the commissioner and a warranty is provided by the person performing the repairs. The warranty must be for a minimum of 10 years and must warranty the tanks against internal and external corrosion and structural failure. A fiberglass tank that once failed a precision test, and was subsequently lined, must be precision tested prior to be placed back in operation. Where a fiberglass tank with a leak is lined, the tank must be properly abandoned pursuant to the section 11 of this rule upon expiration of the warranty.

(b) The following requirements also apply to relining activities:

(i) After relining, fiberglass tanks must pass a precision test.

(ii) The material used as a liner must be compatible with the product to be stored in the tank.

(iii) The lining procedure must be performed in accordance with the procedures outlined in American Petroleum Institute Recommended Practice No. 1631.

(iv) Piping may not be relined.

(v) The owner of the facility shall amend the facility's registration in accordance with section 4(M) of this rule and maintain records of relining for the remaining operating life of the lined tank that demonstrate compliance with this paragraph.

NOTE: Interior lining of a nonconforming unprotected steel tank does not extend the deadline for abandonment of the tank under 38 ~~M.R.S.A.~~M.R.S., section 563-A.

(17) Repairs other than relining

(a) Repairs are allowed in accordance with this paragraph to tanks and piping constructed of fiberglass, cathodically protected steel and other noncorrosive materials approved by the commissioner.

(b) Repairs allowed of tank and piping not constructed of fiberglass, cathodically protected steel or other noncorrosive materials approved by the commissioner are limited to correcting loose fittings and joints.

(c) Repairs of corrosion induced or product incompatibility caused leaks are prohibited. Tanks and piping with corrosion or chemical reaction induced leaks must be closed in accordance with section 11 of this rule.

(d) Repairs, other than those prohibited in paragraph c above, to fiberglass, cathodically protected steel and other approved noncorrosive material tanks and piping must be properly conducted by a Maine Board of Underground Oil Storage Tank Installers (BUSTI) certified underground tank installer who is also certified by the manufacturer, or

by the manufacturer's authorized representative under the supervision of a Maine certified underground tank installer.

NOTE: A Maine certified installer must also be certified by the tank or piping manufacturer to conduct a repair on a tank or piping without a representative of the manufacturer, so not to void the manufacturer warranty.

(e) Repairs of a facility leak detection system, overfill prevention equipment or other ancillary equipment must also be conducted by an underground tank installer certified by the BUSTI and by the manufacturer of the equipment being repaired, when such manufacturer certification is available, except that the following minor repairs of existing equipment or components, when not requiring excavation, may be conducted by an underground oil storage tank inspector certified by the BUSTI and by the manufacturer of the equipment being repaired, when such certification by the equipment manufacturer is available:

(i) Replacement of a defective mechanical or electronic line leak detector with one of the same design;

(ii) Replacement of a drop tube;

(iii) Replacement of a drop tube overfill prevention device with one of the same design; and

(iv) Replacement of a leak detection system sensor or control panel with one of the same make and model.

(f) Tank and piping repairs are to be conducted in accordance with manufacturer specifications or in accordance with the National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code".

(g) Repairs jeopardizing the manufacturer's original warranty are prohibited.

(h) Repaired tanks and piping must be precision tested before going back into operation, except where the repair only included tightening of a loose union, coupling or flexible connector.

(i) Repairs to a cathodic protection system must be conducted in accordance with the NACE International Recommended Practices 0285 and 0169, and in accordance with the following requirements:

(i) Field coated cathodically protected steel underground piping may not be repaired and must be properly abandoned in accordance with section 11, except for broken wiring;

(ii) Repairs to a galvanic cathodic protection systems must be conducted by a certified installer; and

(iii) Repairs to an impressed current, cathodic protection system must be supervised by a corrosion expert and a Maine certified tank installer.

(j) Within 6 to 12 weeks of a repair to a cathodic protection system, the owner or operator shall have the system tested by a certified installer, or certified inspector also certified as a cathodic protection tester in accordance with Appendix A.

(k) Owners must maintain records of each repair of the type listed in this paragraph for the remaining life of the facility.

(18) Financial responsibility requirements

(a) The owner or operator of a new, replacement or existing tank or facility shall demonstrate to the commissioner that the owner or operator has the ability to assure the costs of corrective action and for compensating third parties for bodily injury, property damage and loss of income caused by sudden and non-sudden releases, leaks or discharges from an underground oil storage facility.

(b) Owners or operators shall maintain an ability to assume financial responsibility in accordance with this rule in at least the following per-occurrence amounts.

(i) Owners or operators of all marketing or distribution facilities and motor fuel facilities that handle an average of more than 10,000 gallons of oil per month based on the previous year's throughput shall maintain $1 million.

(ii) All other owners or operators of marketing, distribution and motor fuel underground oil storage facilities shall maintain $500,000.

(c) Owners or operators shall maintain an ability to assume financial responsibility in accordance with this rule in at least the following annual aggregate amounts.

(i) For owners or operators of one (1) to 100 tanks, $1 million; and

(ii) For owners or operators of 101 or more tanks, $2 million.

(d) The amounts of assurance required under this section exclude legal costs.

(e) All references below to the U.S. Environmental Protection Agency's financial responsibility regulations are from the October 26, 1988 version of 40 CFR, Part 280.

(f) A facility owner or operator may use any one or combination of the financial responsibility mechanisms listed below in meeting the requirements of subparagraphs a through d above and of the U.S. Environmental Protection Agency's financial responsibility requirements for underground storage tanks containing petroleum:

(i) Self insurance meeting the financial test of self insurance under 40 CFR, Part 280.95;

(ii) Guarantee meeting the requirements of 40 CFR, Part 280.96;

(iii) Liability insurance or risk retention group coverage meeting the requirements of 40 CFR, Part 280.97;

(iv) Surety bond meeting the requirements of 40 CFR, Part 280.98;

(v) Letters of credit meeting the requirements of 40 CFR, Part 280.99;

(vi) Trust fund meeting the requirements of 40 CFR, Part 280.102; or

(vii) The Maine Ground and Surface Waters ~~Oil~~ Cleanup and Response Fund in accordance with the eligibility requirements and financial assurance limits of 38 ~~M.R.S.A.~~M.R.S., sections 551 and 568-A ~~and 569-A~~, in combination with one or

more of the other above mechanisms to assure full coverage of third party damage liability in accordance with the minimum financial assurance requirements of sections 5(D)(18)(a) and 5(D)(18)(b) above.

(g) Municipalities, counties, school administrative districts and Indian tribes may use, in addition to the mechanisms listed in paragraph (f) above, any one or combination of the following financial assurance mechanisms:

(i) Local government bond rating test in accordance with 40 CFR Part 280.104;

(ii) Self insurance when meeting the local government financial test and the provisions of 40 CFR Part 280.105;

(iii) Local government guarantee meeting the requirements of 40 CFR Part 280.106; and

(iv) A local government dedicated trust fund meeting the requirements of 40 CFR Part 280.107.

(h) An owner or operator may replace one financial assurance mechanism for another, provided that at all times the owner or operator maintains an effective financial assurance mechanism or combination of mechanisms that satisfy the requirements of this paragraph.

(i) Financial assurance mechanisms may be canceled or not renewed in accordance with 40 CFR, Part 280.109.

(j) The facility owner or operator shall maintain financial responsibility records at the facility or at the owner's place of business in accordance with 40 CFR Part 280.17.

(k) In the event of bankruptcy or other financial responsibility incapacity of the facility owner or operator, or a provider of financial assurance; the notification and financial responsibility replacement requirements of 40 CFR, Part 280.114 must be met.

(l) An owner or operator is no longer required to maintain financial responsibility under this rule after a tank or facility has been properly closed in accordance with section 11 of this rule, and if corrective action is required by the commissioner, after the corrective action has been completed to the commissioner's satisfaction and in accordance with section 12 and other rules or orders of the commissioner and board.

(19) Maintenance of records. All logs, monitoring results and other records required by this section must be maintained for a minimum of three (3) years. Except where specifically stated otherwise, facility records must be kept at the facility or the owner's primary place of business, and made readily available to the commissioner, the commissioner's representatives and agents, and municipal officials within 36 hours.

(20) Annual compliance inspection requirements. The owner of a facility is responsible for ensuring that the entire facility is inspected annually for compliance with the applicable requirements of this rule, 38 ~~M.R.S.A.~~M.R.S., subchapter II-B, and Ddepartment rules regarding stage I gasoline balance systems contained in chapter 118, where applicable. The owner shall have any deficiencies detected during an inspection corrected as necessary to bring the facility into compliance with the requirement cited above.

The facility owner shall submit annual inspection results to the commissioner on or before July 1, 2003, and each July 1st thereafter. The inspection results must be recorded on a form

provided by the commissioner and must include a certification statement, signed by an underground oil storage tank installer or inspector certified by the Maine Board of Underground Oil Storage Tank Installers. Such a certification must certify that the entire facility was inspected and any deficiencies discovered have been corrected. Inspection and correction records must also be maintained in accordance with section 5(D)(19). All corrections must be completed prior to the annual July 1st reporting deadline.

NOTE: Under ~~M.R.S.A.~~M.R.S., section 563(9)(B), the commissioner may issue an administrative order to enforce the annual inspection requirements above. Such orders may include ceasing receipt of product deliveries to, and the overall operation of, the portion of the facility in violation of this requirement.

(21) Safe excavation requirements

(a) This paragraph applies to excavation activities on the facility premises and associated with its operation and maintenance.

(b) To ensure adequate protection of public safety and the maintenance of the structural integrity of the facility in accordance with the requirements of this rule, the owner of a facility shall have a certified underground oil storage tank installer present to supervise the excavation and replacement of a concrete pad, back fill, or soil within 10 feet of an underground oil storage tank or facility product piping. The certified underground oil storage tank installer shall be present at all times when such work is being performed. No person other than a certified underground oil storage tank installer may supervise the above activities.

(c) The installer shall have the appropriate class of certification in accordance with 32 ~~M.R.S.A.~~M.R.S., section 10001 *et seq.*

(d) In accordance with NFPA 30 and 30-A, no excavation, or other activities that may act as a source of ignition of flammable vapors at a Class 1 liquid dispensing facility shall occur within 20 feet of ~~a~~ the fueling dispenser hose and nozzle when fully extended, unless the electrical power supply to the dispenser has first been turned off and all fueling operations from that dispenser have ceased.

(e) A written record must be maintained by the facility owner of the excavation date(s) and location, and the name and certification number of the supervising installer.

NOTE: Any discharge caused by or discovered in the course of an excavation must be reported in accordance with section 5(D)(12).

E. Facility closure and abandonment. The closure, abandonment or temporary discontinuance of service of a facility or any part thereof must be conducted in accordance with section 11 of this chapter.

F. Mandatory facility closure upon expiration of warranty. In accordance with 38 ~~M.R.S.A.~~M.R.S. §564(5), a tank and its associated piping must be taken out of operation and properly abandoned in accordance with section 11 of this chapter upon the expiration date of the tank warranty unless the tank, its associated piping and other facility components meet the requirements of this section. For the purpose of this subsection, when the length of the tank warranty is either unknown or the tank was installed after January 1, 2008, the tank will be deemed to have a tank warranty of 30 years from the date of installation.

NOTE: Many steel USTs sold and installed after January 1, 2008 only have a 10 year tank warranty unless the owner purchased an additional 20 years of warranty from manufacturer.

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(1) Double-walled tanks. A double-walled tank may remain in service up to 10 years beyond the expiration date of its original tank warranty if the facility meets the following requirements:

(a) The tank interstitial space and its original associated piping, overfill bucket and sumps pass a precision test in the 6 months immediately prior to the expiration of the warranty;

(b) The tank and its associated piping and other facility components are equipped and operated in accordance with the requirements for leak detection monitoring, overfill protection and spill protection in accordance with sections 5(B) and 5(D) of this chapter;

(c) A passing annual inspection report has been submitted to the commissioner in accordance with section 5(D)(20) in the 12 months immediately preceding the expiration date of the tank's original manufacturer warranty, and there is no continuing unexplained evidence of a possible leak;

(d) The facility registration is amended in accordance with section 4(M) of this rule; and

(e) The tank interstitial space and associated piping, overfill bucket and sumps pass an annual precision test in the 6^{th}, 7^{th}, 8^{th}, 9^{th} and 10^{th} year following the expiration of the tank warranty.

(2) Corrosion-resistant single-walled tanks. A single-walled tank constructed of fiberglass reinforced plastic, cathodically protected steel or another equally noncorrosive material approved by the commissioner and has not been out of service for more than 24 consecutive months may remain in service up to 10 years beyond the expiration date of the original tank warranty when the tank is retrofitted with secondary containment and meeting the following requirements:

(a) The original tank and its associated piping, overfill bucket and sumps pass a precision test in the 6 months immediately prior to the expiration of the tank warranty;

(b) A passing annual inspection report has been submitted to the commissioner in accordance with section 5(D)(20) in the 12 months immediately preceding the expiration date of the tank's original manufacturer warranty, and there is no continuing unexplained evidence of a possible leak;

(c) The facility registration is amended in accordance with section 4(M) of this rule;

(d) Prior to submitting the registration amendment and initiating the required tank retrofit, a site assessment is conducted in accordance with this subparagraph to determine whether oil contamination from historical discharges underlies the tank:

(i) A soil boring is installed into the ground water table or to first refusal, whichever is shallower, and as close as feasible to, but no further than 10 feet from the tank, on all four sides;

(ii) A Maine certified tank installer must be present to supervise the installation of the borings in accordance with section 5(D)(21) of this chapter;

(iii) As the borings are advanced, soil samples must be collected and screened continuously using a field analytical method for oil in soils approved by the commissioner;

(iv) One soil sample from above the ground water table with the highest screening result must be collected for laboratory analysis using the Massachusetts Department of Environmental Protection Petroleum Hydrocarbon Fractions Analytical Method, Version 1.1, May 2004, for volatile and extractible petroleum hydrocarbons, as applicable, based on which types of oil were historically stored in the tank;

(vi) A ground water sample must be collected from each boring in which ground water is encountered for field evaluation for the presence of free product;

(vii) Evidence of a possible leak or discharge of oil is reported by the facility owner or operator within 24 hours of discovery in accordance with Appendix P of this rule; and

(viii) Submission of the testing results and their interpretation by a Maine certified geologist or registered professional engineer with the facility registration amendment;

(e) The secondary containment retrofit system is constructed and installed in accordance with Underwriters Laboratory of Canada (ULC) Standard ORD C58.4.05 or Underwriters Laboratory (UL) Standard 1316;

(f) The tank secondary containment retrofit system is installed in accordance with the manufacturer's specifications and by a manufacturer certified installer or representative in collaboration with a Maine certified underground storage tank installer;

(g) The tank and its associated piping and other facility components are equipped and operated in accordance with the requirements for leak detection monitoring, overfill prevention and spill prevention under sections 5(B) and 5(D) of this chapter;

(h) The cathodic protection system of steel tanks continues to be maintained and monitored in accordance with section 5(D);

(i) Prior to the expiration of the original tank warranty, single-walled pressurized piping connected to the tank is replaced with piping and leak detection monitoring meeting the requirements of section 5(B) and 5(D); and

(j) The tank interstitial space and associated piping, overfill bucket and sumps pass an annual precision test in the 6^{th}, 7^{th}, 8^{th}, 9^{th} and 10^{th} year following the expiration of the original tank warranty.

(3) Precision testing required to allow a tank to remain in service after the expiration of the original manufacturer warranty must be conducted and the results reported to the commissioner in accordance with section 5(D) and Appendix B of this chapter. Pre-requisite passing precision test results must be submitted as part of the facility registration amendment. Precision testing as specified in paragraphs 1 or 2 above is not required of a double-walled tank monitored by a continuous hydrostatic or vacuum leak detection system meeting the requirements of this chapter. The piping, however, must be tested as required above.

(4) Delayed facility closure and abandonment. Upon expiration of the extended tank operating life provided under this subsection, the tank and the associated piping installed 10 or more years prior are to be abandoned in accordance with section 11 of this rule.

6. Regulation of facilities used to store heating oil for consumption on the premises

A. Applicability

(1) This section applies to all underground heating oil or process oil storage facilities used for consumption on the premises or by the owner or operator of the facility.

(2) This section does not apply to motor fuel, marketing, distribution facilities, waste oil facilities, field constructed tanks or heavy oil facilities except where specifically stated otherwise.

B. Design and installation requirements for new and replacement facilities

(1) General design requirements

(a) The installation of new or replacement tanks and piping constructed of bare steel or asphalt coated steel is prohibited.

(b) All new and replacement tanks must be constructed of fiberglass reinforced plastic (hereafter referred to as fiberglass), cathodically protected steel, or other noncorrosive material approved by the commissioner. Piping and other below ground ancillary equipment in contact with soil or water must be constructed of fiberglass, cathodically protected steel or other equally noncorrosive materials approved by the commissioner.

(i) It is the responsibility of the facility owner to demonstrate to the satisfaction of the commissioner that the materials are noncorrosive and meet or exceed the required performance standards listed below in this paragraph.

(ii) All new or replacement facilities must be listed and constructed in accordance with the standards contained in the following:

- Fiberglass Tanks –
  - Underwriters Laboratories Standard 1316, Glass-Fiber- Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols and Alcohol-Gasoline Mixtures; or
  - Underwriters Laboratories of Canada S615, Standard for Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids;
- Cathodically Protected Steel Tanks–
  - Steel Tank Institute (STI) sti-P3® Specification and Manual for External Corrosion Protection of Underground Storage Tanks ;
  - Underwriters Laboratories Standard 1746, Standard for External Corrosion Protection Systems for Steel Underground Storage Tanks;
  - Underwriters Laboratories of Canada S603, Standard for Steel Underground Tanks for Flammable and Combustible Liquids, and S631, Standard for Isolating Bushings for Steel Underground Tanks Protected with External Corrosion Protections Systems;
  - Steel Tank Institute (STI) Standard F841, Standard for Dual Wall Underground Steel Storage Tanks;
  - National Association of Corrosion Engineers (NACE) International, RP-0285,Corrosion Control of Underground Storage Systems by

Cathodic Protection, and Underwriters Laboratories Standard 58, Standard for Steel Underground Tanks for Flammable and Combustible Liquids; or

- Petroleum Equipment Institute RP-100.

- Steel Clad or Jacketed Tanks –
  - UL 1746 ,
  - Steel Tank Institute (STI) Composite Tank Standard (F894-02), or
  - Steel Tank Institute Specification F922, STI Specification for Permatank;
- Non-Metallic and Fiberglass Piping –
  - Underwriters Laboratories Standard 971, Standard for Non-metallic Underground Piping for Flammable Liquids, or
  - Underwriters Laboratory of Canada Standard S660, Standard for Non-metallic Underground Piping for Flammable Liquids.
- Pipe Connectors - Underwriters Laboratories Standard 567.
- Flexible Connectors - Underwriters Laboratories of Canada Standard ULC/CAN -S633.
- Steel Piping –
  - National Fire Protection Association Standards 30 or 31;
  - American Petroleum Institute Publications 1632, Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems;
  - National Association of Corrosion Engineers (NACE) International Standard RP- 0169, Control of External Corrosion on Underground or Submerged Metallic Piping Systems or NACE Standard 0285, Corrosion Control of Underground by Cathodic Protection;
  - Steel Tank Institute Recommended Practice R982, Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with Liquid Petroleum Storage and Dispensing Systems; or
  - American Petroleum Institute Publications 1632, Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems;

NOTE: Fiberglass clad steel and other steel composite tanks need not be provided with galvanic or impressed current cathodic protection if designed and constructed with secondary containment and interstitial space monitoring in accordance with standards of this subsection.

(iii) Impressed current cathodic protection systems shall be designed by a corrosion expert and according to standards described in the National Association of Corrosion Engineers Recommended Practice 0285 and SP 0169, and installed under the supervision of a corrosion expert. Other portions of the facility may be installed by a Maine certified installer without such supervision.

(c) Used or previously installed fiberglass or cathodically protected tanks may not be re-installed unless the owner has supplied the commissioner with satisfactory documentation that the manufacturer will warranty the tanks against internal and external corrosion and structural failure, for a period of at least 10 years, after which the tanks must be properly abandoned in accordance with section 11 of this rule. Re-installation of a tank requires an amendment of the facility registration in accordance with section 4(M) of this rule. The warranty documentation shall accompany the submission of the registration amendment. Used piping may not be reinstalled.

(d) All facility construction materials must be chemically and physically compatible with the product to be stored.

(2) Leak detection. All new and replacement facilities must be provided with secondary containment for all facility components routinely containing product, including tanks, product piping (including supply and return lines) and below ground ancillary equipment. New and replacement tanks and product piping must have continuous interstitial space monitoring. Interstitial space monitoring for heating oil facilities must be able to detect a loss or gain in the interstitial space from a leak in primary or secondary containment structure of 150 gallons or more within 30 days of a leak or discharge. Leak detection probes are to be installed at the lowest point of each leak monitoring location.

(3) Overfill and spill prevention equipment. New and replacement tanks with a capacity in excess of 1,100 gallons must have the following spill and overfill prevention equipment:

(a) A liquid tight spill catchment basin, sealed around each tank fill pipe and having a minimum capacity of 15 gallons to collect spillage during product delivery; and

(b) Overfill prevention equipment that will automatically shut off flow into the tank when the tank is no more than 95 percent full, or alert the transfer operator when the tank is no more than 90 percent full by restricting flow into the tank or triggering a high-level audible alarm. The use of vent float valves is prohibited on a tank that will receive pressurized oil deliveries because of the danger of rupturing the tank or overfilling the fill pipe.

(4) General installation requirements for new and replacement facilities

(a) No underground oil storage facility or tank may be installed unless the facility has been registered in accordance with section 4 of this chapter.

(b) No person may install an underground oil storage facility or a portion thereof unless that person is a properly certified underground oil storage tank installer with the appropriate class of certification in accordance with 32 ~~M.R.S.A.~~M.R.S. §§10001 - 10015 and has paid the required certification fee.

(c) A certified underground oil storage tank installer may not install an underground storage tank if the installer has been placed on inactive status or if the installer's certification has been suspended or revoked under 32 ~~M.R.S.A.~~M.R.S. §1001, and has not been reinstated.

NOTE: No person may connect an underground storage tank used to store heating oil to a boiler or furnace unless that person is a master oil technician or a journeyman working under the supervision of a master oil technician licensed by the Oil and Solid Fuel Board under 32 ~~M.R.S.A.~~M.R.S. §2311 *et seq.*, and rules administered by the Oil and Solid Fuel Board.

(d) If a tank is replaced, all associated underground piping not meeting the design requirements of this chapter must be replaced. Any replacement piping must be designed and installed in accordance with this rule. If product piping is replaced and structural damage to the associated tank has occurred, impairing its physical integrity, the associated tank must also be replaced if not constructed of fiberglass, cathodically protected steel, or other noncorrosive materials approved by the commissioner. Repairs of damaged fiberglass, cathodically protected steel, and other commissioner approved noncorrosive material tanks may only be made if conducted in accordance with sections 5(D)(16) or (17). Tanks that cannot be repaired must be abandoned in accordance with section 11.

(e) An accurate structure to soil potential measurement must be performed by a certified tank installer or a certified cathodic protection tester in accordance with Appendix A upon installation of all galvanic cathodic protection systems.

(f) All phases of the installation of an impressed current cathodic protection system must be supervised on-site by a corrosion expert. The tank, piping and other portions of the facility other than the impressed current system may be installed by a Maine certified underground oil storage tank installer without such supervision.

(g) No underground oil storage tank or piping may be installed within 1 foot of the bedrock surface.

(h) Leak detection and overfill/spill prevention alarms and shutoff equipment must be installed and operational prior to the start of the facility's operation and in accordance with manufacturer specifications, including proper calibration of electronic equipment.

(i) Certification of installation. Owners of new and replacement facilities shall ensure that the installers certify to the commissioner, within 30 days of completion of installation, that the facility materials, design and installation comply with the requirements of this rule. This certification must be provided in writing on a form provided by the commissioner.

(5) Installation requirements for new and replacement tanks.

(a) All tanks must be installed in conformance with the requirements of Appendix D.

(b) All tanks must be installed in accordance with the manufacturer's instructions.

(6) Installation requirements for new and replacement piping.

(a) All underground piping in contact with soil or water must be installed in conformance with Appendix E.

(b) All underground piping in contact with soil or water must be constructed of fiberglass, cathodically protected steel or other noncorrosive materials approved by the commissioner.

(i) For #1 and #2 heating oil facilities, copper piping meeting, the requirements of National Fire Protection Association Code 31, Installation of Oil Burning Equipment, may be used for supply and return lines. All connections between a cathodically protected steel tank and the copper piping must incorporate dielectric fittings that electrically isolate the tanks from the piping.

(ii) Schedule 40 PVC (polyvinyl chloride) piping may be used for secondary containment for #2 heating oil facilities if it is at least twice the diameter of the internal piping.

(iii) When installing copper piping inside fiberglass, PVC or other piping to provide secondary containment, supply and return lines must be provided with spacers to separate the lines and prevent wear due to vibration and friction.

NOTE: Primary pipe spacers can be provided by using 6-inch lengths of 1/4 inch thick polyethylene foam tubing insulation placed every 10 feet of pipe.

(iv) It is the responsibility of the facility owner to demonstrate to the satisfaction of the commissioner the materials are noncorrosive.

(v) All new or replacement non-metallic piping must be listed by Underwriters Laboratories and installed in accordance with manufacturer instructions. Cathodically protected piping must be constructed and installed in conformance with the National Association of Corrosion Engineers, Recommended Practice, Publication No. 0285-~~95~~, or Steel Tank Institute (STI) Standard RP 892-~~89~~.

(vi) Secondary containment and cathodic protection of vertical, direct drop fill pipes is not required if the fill pipe is constructed of Schedule 40 steel and is uniformly coated with a minimum of 1/8 inch of fiberglass resin, bitumastic coating or epoxy coating. The pipe surface must be properly prepared and the coating allowed to cure. Offset fill pipes require secondary containment and interstitial space monitoring. Where secondary containment with interstitial space monitoring is not technically feasible, another leak detection system may be used upon prior approval of the commissioner.

C. Operation, maintenance, testing and inspection requirements for new, replacement and existing facilities

(1) The owner or operator shall report any evidence of a possible leak or discharge, as defined in section 5(D)(11) of this chapter to the commissioner within 24 hours of discovery. A certified underground tank installer or inspector finding evidence of a possible leak or oil discharge must report it to the facility owner or operator, and the commissioner, as soon as possible, but no later than within 24 hours of discovery. Actual oil leaks and discharges as defined in section 5(D)13 of this chapter shall be reported to the commissioner by the facility owner or operator, and the certified tank installer or inspector within two (2) hours of discovery.

Notwithstanding the above, discharges of 10 or less gallons of oil that occur on the premises and above the surface of the ground onto a concrete or asphalt paved surface, and that do not reach ground water or surface waters of the State need not be reported to the commissioner if the owner or operator complies with all of the following requirements:

(a) The discharge is cleaned up within 24 hours of discovery.

(b) A written log is maintained at the facility or the owner's place of business recording for each discharge the date of discovery, its source, the general location of the discharge on the facility, the date and method of cleanup, and the signature of the facility owner or operator certifying the accuracy of the log.

(c) The log is readily available for inspection upon request by personnel and authorized agents of the commissioner within 24 hours.

NOTE: To report a leak or discharge at any time 24 hours a day, 7 days a week, call 1-800-482-0777.

(2) If a facility has a cathodic protection system, it must be operated, monitored and maintained in accordance with section 5(D)(4) or (D)(5) of this chapter.

(3) For existing facilities with ground water monitoring wells for leak detection, the monitoring wells must be sampled weekly and the results must be recorded in a log book in the same manner as required under section 5(D)(14).

(4) The owner or operator of an existing facility with leak detection equipment other than ground water monitoring wells, shall test for leaks monthly and maintain a log at the facility, including the date, the presence or absence of evidence of a leak or discharge and the name of the individual conducting the test.

(5) Continuous interstitial space or other continuous leak detection monitoring equipment must be maintained in accordance with section 5(D) of this chapter.

(6) The owner or operator shall operate and maintain the spill prevention and overfill prevention equipment to ensure it is operating properly at all times in accordance with the requirements of section 5(D) of this chapter.

(7) The owner or operator shall operate and maintain the cathodic protection systems in accordance with the requirements of section 5(D) of this chapter.

(8) Tanks only may be relined in accordance with section 5(D)(16) of this chapter. Other facility repairs must be conducted in accordance with section 5(D)(17).

(9) Oil product may not be stored in a facility of a design or construction with which it is not chemically or physically compatible.

(10) The owner shall conduct an annual facility compliance inspection, correcting any deficiencies found, in accordance with section 5(D)(20) of this chapter.

(11) Maintenance of records. All facility records and logs required by this chapter must be maintained and available in accordance with section 5(D)(19).

D. Facility closure and abandonment. Closure, abandonment, or temporary discontinuance of service of a facility or any part thereof must be in accordance with section 11 of this chapter.

7. Regulation of facilities for the underground storage of waste oil

A. Applicability

This section applies to any person, except a waste oil dealer, who stores or proposes to store waste oil in underground tanks. Waste oil dealers are subject to Chapter 860, the Ddepartment's Waste Oil Management Rules.

B. Design and installation standards for new and replacement facilities

(1) All tanks and associated piping used for the underground storage of waste oil must be registered in accordance with section 4 of this chapter.

(2) The installation of new and replacement tanks constructed of bare steel or asphalt coated steel is prohibited.

(3) All new and replacement tanks must be installed by an underground oil storage tank installer who has been properly certified pursuant to 32 ~~M.R.S.A.~~M.R.S. §§ 10001-10015.

(4) New and replacement waste oil tanks, associated piping and other facility components routinely containing oil must be equipped with secondary containment with continuous interstitial space monitoring, designed and installed in accordance with section 5(B) except as provided below.

(5) Piping for a new or replacement waste oil facility supplying a waste oil furnace or boiler may not use PVC piping for secondary containment but instead must be constructed of fiberglass, cathodically protected steel or other noncorrosive materials approved by the commissioner.

(6) Fill and removal pipes at new and replacement facilities must be installed with a spill overfill collection box with a capacity of at least 3 gallons with a liquid tight seal around the fill pipe that will collect spillage during product delivery or withdrawal.

(7) In addition to the siting restrictions in Chapter 692, the Department's Rules for Siting Oil Storage Facilities, or 38 ~~M.R.S.A.~~M.R.S., subsection 1393, new and replacement underground waste oil facilities may not be located in the following areas:

(a) Beneath a building or other permanent structure; or

(b) Within 25 feet of a classified body of surface water.

(8) No used or previously installed fiberglass, cathodically protected steel, or other tank meeting section 5(B) of this rule may be re-installed unless the owner has provided the commissioner with satisfactory documentation that the manufacturer will warrant the tank or piping against internal and external corrosion and structural failure for a period of at least 10 years, after which the tank or piping must be properly abandoned in accordance with the requirements of section 11 of this chapter. Re-installation of a tank or piping requires an amendment of the facility registration in accordance with section 4(M) of this chapter. The warranty documentation shall accompany the submission of the registration amendment. Used piping may not be re-installed.

(9) Certification of proper installation. Owners of new and replacement facilities shall ensure that the installer(s) provides certification to the commissioner within 30 days of completion of installation; that the facility's materials, design and installation are in compliance with the requirements of this chapter. This certification must be provided in writing on a form provided by the commissioner.

C. Retrofitting requirements for existing facilities. Existing waste oil facilities constructed of fiberglass, cathodically protected steel, or other equally noncorrosive materials approved by the commissioner, but without secondary containment and continuous interstitial space monitoring pursuant to subsection B(4) above, must provide by December 22, 1998, leak detection and overfill and spill prevention in accordance with the requirements of section 5(C) of this chapter.

D. Operation, maintenance, testing and inspection requirements for existing, new and replacement facilities

(1) All cathodically protected steel tanks, piping and other ancillary equipment must be operated, and maintained in accordance with section 5(D)(4) or (D)(5), and Appendix A of this chapter.

(2) Leak detection and overfill and spill prevention systems must be operated and maintained in accordance with the requirements of section 5(D) of this chapter.

(3) The owner or operator shall report to the commissioner any evidence of a possible leak or discharge, as defined in section 5(D)(11-within 24 hours from the time of discovery . A certified underground tank installer or inspector finding evidence of a possible leak or oil discharge must report it to the facility owner or operator, and the commissioner, as soon as possible, but no later than within 24 hours of discovery. Actual oil leaks and discharges as defined in section 5(D)(12) of this chapter shall be reported to the commissioner by the facility owner or operator, and the certified tank installer or inspector within two (2) hours of discovery.

Notwithstanding the above, discharges of 10 or less gallons of oil, occurring above the surface of the ground onto a concrete or asphalt paved surface and not reaching ground water or surface waters of the State, do not need to be reported to the commissioner if the owner or operator complies with all of the following requirements:

(a) The discharge is cleaned up within 24 hours of discovery.

(b) A written log is maintained recording for each discharge the date of discovery, its source, the general location of the discharge on the facility, the date and method of cleanup, and the signature of the facility owner or operator certifying the accuracy of the log.

NOTE: To report a leak or discharge at any time, 24 hours a day, 7 days a week, call 1-800-482-0777.

(4) The owner or operator shall maintain a log at the facility, recording the date, results, and the individual conducting the annual tests of cathodic protection and leak detection systems.

(5) Only waste oil tanks constructed of cathodically protected steel, fiberglass or another noncorrosive material approved by the commissioner may be relined. Such tanks must be relined in accordance with section 5(D)(16) of this chapter. Repairs other than relining must be conducted in accordance with section 5(D)(17).

(6) Waste oil may not be stored in a facility of a design and construction with which it is not chemically or physically compatible.

(7) Hazardous substances as defined in 38 ~~M.R.S.A.~~M.R.S. § 1362(1), may not be added to or stored at a waste oil facility.

NOTE: The addition of degreasers, solvents and other hazardous substances to a waste oil tank may make the waste oil a hazardous waste. Hazardous wastes must be stored, manifested, transported and disposed in accordance with the Ddepartment's hazardous waste regulations, chapters 850 through 857.

(8) All owners or operators of waste oil facilities shall provide financial responsibility coverage in accordance with the requirements of section 5(D)(18) of this chapter.

(9) Maintenance of records. Required facility records and logs must be maintained and available in accordance with section 5(D)(19) of this chapter.

(10) The owner must conduct an annual facility compliance inspection, correcting any deficiencies found in accordance with section 5(D)(20) of this chapter.

E. Closure of waste oil storage facilities. Underground waste oil storage tanks and associated piping must be abandoned in accordance with section 11 of this chapter.

8. Regulation of field constructed underground oil storage tanks

A. Applicability

(1) This section applies to all underground oil storage tanks where the primary containment structure is constructed at the location of installation and is not delivered to the installation site without further assembly required.

(2) This section applies to tanks constructed of steel, concrete, fiberglass reinforced plastic, fiberglass and other materials.

B. Design and installation requirements for new and replacement tanks

(1) General design requirements

(a) Bare steel and asphalt coated steel tanks are prohibited.

(b) Concrete, fiberglass reinforced plastic, fiberglass and riveted steel tanks are prohibited.

(c) All new and replacement steel tanks must be cathodically protected and coated with a suitable dielectric material. The cathodic protection system must be designed by a corrosion expert to adequately protect all parts of a tank from corrosion by maintaining a negative structure to soil potential of at least 0.85 volts. Cathodic protection systems must be designed in accordance with National Association of Corrosion Engineers Standard RP 0285"Corrosion Control of Underground Storage Tank Systems by Cathodic Protection".

(d) New and replacement steel tanks must be designed by a professional engineer in compliance with Maine's professional regulation statute, and constructed in accordance with Underwriters Laboratories Standard 1746, "Corrosion Protection Systems for Underground Storage Tanks", and American Petroleum Institute Standard 650 "Welded Steel Tanks for Oil Storage".

(e) Piping connected to field constructed tanks must be designed and constructed in accordance with the requirements of sections 5, 6, 7, 9 or 10 depending on type of facility and piping system proposed.

(2) Leak detection. All new and replacement field constructed tanks must be provided with secondary containment and continuous interstitial space monitoring.

(3) Overfill and spill prevention equipment. New and replacement tanks must be installed with overfill and spill prevention equipment in accordance with section 5(B)(3) or section 6(B)(3) depending on facility type.

(4) General installation requirements

(a) No new or replacement field constructed underground oil storage tank may be installed unless the facility has been registered in accordance with section 4 of this chapter.

(b) New and replacement field constructed tanks shall be assembled and installed according to good engineering practices under the surveillance of a professional engineer registered in Maine or otherwise working in compliance with 32 ~~M.R.S.A.~~M.R.S. §§ 1351 et. seq.

The engineer shall be responsible for supervising all phases of assembly and installation. At least 60 days prior to tank registration, design and installation plans must be submitted to the commissioner for review and approval. The plan must include, at a minimum:

(i) Secondary containment and leak detection installation details;

(ii) Overfill and spill prevention equipment installation;

(iii) Anchoring;

(iv) Excavation and backfill specifications; and

(v) Cathodic protection system installation.

(c) Installation of the cathodic protection system must be supervised by a corrosion expert.

(d) If a tank is replaced, all associated piping not meeting the design and installation requirements of this section must be replaced except if the piping is part of an airport hydrant piping system. If product piping attached to a field constructed tank is replaced and structural damage to the associated tank has occurred impairing its physical integrity, the tank also must be replaced if not designed and installed in accordance with this section.

(e) Certification of proper installation. Owners of new and replacement facilities shall ensure that the project engineer certifies to the commissioner, within 30 days of completion of installation; that the facility materials, design and installation are in compliance with the requirements of this rule. This certification must be provided in writing on a form provided by the commissioner.

C. Retrofitting requirements for existing motor fuel, marketing or distribution field constructed tanks

(1) Leak detection must be retrofitted at existing field constructed tanks in accordance with section 5 of this chapter.

(2) Overfill and spill prevention equipment must be retrofitted by December 1, 1993, at all existing field constructed tanks made of fiberglass, cathodically protected steel, or other noncorrosive materials approved by the commissioner, in accordance with section 5(B)(3) of this chapter.

D. Operation, maintenance, testing, and inspection requirements for new, replacement and existing tanks

(1) Tanks that are part of a motor fuel, marketing or distribution facility must be operated in accordance with section 5(D) of this chapter, except that the requirements of sections 5(D)(1) and (2) do not apply.

(2) Tanks that are part of a heating oil facility for consumptive use by the owner or operator must be operated in accordance with section 6(C).

(3) Tanks that are a part of a waste oil facility must be operated in accordance with section 7(C).

(4) Notwithstanding the above, repairs must be conducted in accordance with sections 5(D)(16) and (17), except that a repair may be designed by and conducted under the surveillance of a professional engineer in accordance with Maine's professional regulation statutes.

(5) The owner shall conduct an annual facility compliance inspection and correct any deficiencies found in accordance with section 5(D)(20) of this chapter.

E. Closure and abandonment of underground field constructed oil storage tanks

(1) Tanks must be abandoned in accordance with section 11, except that owners of concrete tanks larger than 20,000 gallons capacity may be granted a variance by the commissioner from the requirement under the following conditions:

(a) An alternate method of closure or long term maintenance is proposed that is equally protective of the environment, public health, safety and welfare;

(b) Discharges of oil will be remediated to the satisfaction of the commissioner;

(c) Public access is controlled;

(d) A notice of the presence of underground oil storage tanks is permanently attached to the deed of the parcel upon which the tanks are located, including at a minimum, a description of the tanks, their size, types of product stored, and their surveyed location; and

(e) Written notice has been provided to the local fire department having jurisdiction indicating that a variance is being sought from the requirements of section 11.

The commissioner may approve, deny, or approve with conditions a variance under this paragraph.

(2) The owner or operator of a field constructed tank shall conduct a site assessment in accordance with section 11(A) and Appendix P prior to the completion of facility closure.

9. Regulation of facilities for the underground storage of heavy oils

A. Applicability

(1) This section applies to all underground oil storage facilities intended for storing or containing heavy oil, oil that must be heated during storage, including but not limited to #5 and #6 oil.

(2) This section applies to # 4 oil storage facilities only when the oil must be heated during storage.

B. Design and installation requirements for new and replacement facilities

(1) General design requirements

(a) Facilities must be designed in accordance with section 6(B)(1) except where a field constructed tank is proposed at a heavy oil facility, then the general design requirements for heating oil facilities under sections 6(B)(1) or 8(B) must be followed.

(b) All facility construction materials must be physically and chemically compatible with the product to be stored, including the temperature at which the product is to be stored. Fiberglass or plastic jacketed components may not be installed in facilities where the oil temperature will exceed 150°F.

(2) Leak detection. New and replacement heavy oil facilities must provide leak detection in conformance with the leak detection requirements for other heating oils in section 6(B)(2) or

field constructed tanks in section 8(B)(2), including secondary containment with continuous interstitial space monitoring.

(3) Overfill and spill prevention equipment requirements are the same as those for other heating oils under section 6(B)(3) of this chapter.

(4) Installation requirements for new and replacement heavy oil facilities.

(a) An underground oil storage facility or tank may not be installed unless the facility has been registered in accordance with section 4 of this chapter.

(b) No person may install an underground heavy oil storage facility unless that person is a properly certified Class 2 underground oil storage tank installer in accordance with 32 ~~M.R.S.A.~~M.R.S. §§ 10001 *et seq.* and has paid the certification fee.

(c) If a tank is replaced, all associated underground piping not meeting the design requirements of this rule must be replaced. Any replacement piping must be designed and installed in accordance with this rule. If product piping is replaced and structural damage to the tank has occurred, the associated tank also must be replaced if not constructed of fiberglass, cathodically protected steel, or other noncorrosive materials approved by the commissioner. Repairs of damaged fiberglass, cathodically protected steel, and other Commissioner approved tanks may only be made if conducted in accordance with sections 5(D)(16) or (17). Tanks that cannot be repaired must be abandoned in accordance with section 11.

(d) New and replacement heavy oil facilities must be installed in accordance with National Fire Protection Association Code 31 and the requirements of section 6(B)(4), (5) and (6), except that the installation of copper and PVC piping is prohibited and the heating system must be electrically isolated from the cathodic protection system if the tank is steel.

(e) New and replacement fiberglass and plastic jacketed steel tanks must be provided with continuous product temperature monitoring equipment, installed in accordance with the manufacturer's specifications.

C. Operation, maintenance, testing and inspection of new, replacement and existing facilities

(1) Heavy oil facilities must be operated in accordance with the requirements for other heating oil facilities in section 6(C) of this chapter.

(2) The owner or operator of heavy oil facilities with fiberglass or plastic jacketed steel tanks or piping shall monitor representative product temperature within the tank daily to ensure it does not exceed tank and piping manufacturers' specifications or limits. Product temperature readings must be recorded, including date, temperature, and the initials of the person taking the measurements or readings. Temperature records must be maintained at the facility for 3 years and be available to Ddepartment personnel and representatives or municipal officials.

(3) Product temperature measurement equipment must be maintained in good operating condition. Such equipment must be tested and if necessary, calibrated, at least annually by a properly trained representative of the owner or operator, a certified installer or an authorized representative of the manufacturer.

(4) Fiberglass and jacketed steel facilities may not be operated above 150°F.

(5) The owner shall conduct an annual facility compliance inspection and correct any deficiencies found in accordance with section 5(D)(20) of this chapter.

D. Closure requirement. Heavy oil tanks must comply with the requirements of section 11.

10. Regulation of pressurized airport aviation fuel hydrant piping systems

A. Applicability

(1) This section applies to all underground pressurized airport aviation fuel hydrant piping systems, including associated pressurized transmission piping, that are a part of an underground oil storage facility.

(2) Underground tanks storing aviation fuel must comply with section 5 or 8 of this chapter, as applicable.

B. Design, construction and installation requirements for new and replacement systems

(1) General design and construction requirements

(a) Bare steel and asphalt coated steel piping are prohibited.

(b) All new and replacement steel piping in contact with soil or water must be cathodically protected and coated with a suitable dielectric material. The cathodic protection system must be designed by a corrosion expert to adequately protect all parts of the piping system from corrosion by maintaining a negative structure to soil potential of at least 0.85 volts. Cathodic protection systems shall be designed in accordance with National Association of Corrosion Engineers Standard RP-0285.

(c) Piping must be designed by a professional engineer in compliance with Maine professional regulation statutes, and constructed in accordance with American National Standards Institute (ANSI) standard for "Chemical Plant and Petroleum Refinery Piping", ANSI/ASME B 31.1.

(2) Leak detection. All new and replacement airport hydrant piping routinely containing oil must be provided with secondary containment and continuous interstitial space monitoring.

(3) General installation requirements

(a) No new or replacement airport hydrant piping may be installed unless the facility and piping have been registered in accordance with section 4 of this chapter.

(b) New and replacement airport hydrant piping must be installed according to good engineering practices using welded joints and under the supervision of a professional engineer registered in Maine or otherwise working in compliance with 32 ~~M.R.S.A.~~M.R.S. §§ 1351 *et seq*. The engineer shall be responsible for surveillance of all phases of installation. Installation plans must be submitted for department review and approval at least 60 days prior to new or replacement piping registration and must include at a minimum:

(i) Secondary containment and leak detection installation details;

(ii) Excavation and backfill specifications;

(iii) Pipe material specifications;

(iv) Welding specifications; and

(v) Cathodic protection system installation.

(c) Installation of the cathodic protection system must be supervised by a corrosion expert.

(d) If airport hydrant piping is replaced, any underground oil storage tank not constructed of fiberglass, cathodically protected steel, or other commissioner approved noncorrosive materials in conformance with sections 5 or 8 of this chapter must be replaced at the same time.

(e) New and replacement piping must be installed in accordance with NACE International RP 0285, NACE International RP 169 or ANSI/ASME B31.3.

(f) Welded joints must be radiograph inspected.

(g) Hydrant pits must be liquid tight and must drain to an oil water separator, or other commissioner approved collection and treatment system.

(h) Certification of installation. Owners of new and replacement facilities shall ensure that the project engineer certifies to the commissioner, within 30 days of completion of installation, that the facility materials, design and installation meet the requirements of this rule. This certification must be provided in writing on a form provided by the commissioner.

C. Retrofitting requirements for existing airport hydrant piping systems

(1) Existing airport hydrant piping systems without secondary containment and interstitial space monitoring or another form of leak detection in compliance with section 5(B)(2) of this rule, shall retrofit or implement one of the following leak detection methods by December 1, 1991:

(a) An annual hydrostatic test of the entire piping line conducted at 150 percent of maximum design operating pressure, or maximum transient surge pressure, whichever is greater. Test shall be conducted for a minimum of four (4) hours and otherwise in accordance with API Recommended Practice 1110, "Pressure Testing of Liquid Petroleum Pipelines".

(b) Continuous vapor or tracer monitoring in the unsaturated soil zone, using sufficient sampling points to detect a leak or discharge of oil from any point in the piping. Vapor monitoring must meet the requirements specified in section 5(C)(2)(c) of this chapter.

(c) Other leak detection systems approved by the commissioner that can reliably detect a loss of at least 40 gallons per day.

(2) Existing airport hydrant piping systems constructed of steel may retrofit corrosion protection in accordance with 38 ~~M.R.S.A.~~M.R.S. § 563-A(1-A) as an alternative to abandonment or replacement, provided a corrosion induced leak has not occurred and the system is not located in a sensitive geological area. To be eligible for this exemption, the facility owner or operator must demonstrate to the commissioner's satisfaction that the airport hydrant piping system does not leak 40 gallons or more per day and that any leaks are not directly or indirectly due to corrosion. Cathodic protection must be designed by a corrosion expert and installed in accordance with the standards of section 10(B) above. Leak detection must be retrofitted at the same time cathodic protection is retrofitted.

D. Operation, maintenance, testing and inspection requirements for new, replacement and existing systems

(1) Airport aviation fuel hydrant piping systems must be operated in accordance with section 5(D) of this chapter, except that the requirements of 5(D)(1) and (2) do not apply; and

(2) Repairs of new, replacement and existing piping must be in accordance with good engineering practice and under the surveillance of a Maine professional engineer. Upon completion, the repaired section must be tested for leaks and for proper operation of the cathodic protection system. A report describing the repairs made and test results must be submitted by the owner or operator to the commissioner for approval.

(3) Annual inspection requirements. The owner shall conduct an annual facility compliance inspection and correct any deficiencies found in accordance with section 5(D)(20) of this chapter.

E. Closure and abandonment. Closure and abandonment of airport hydrant piping systems must be in accordance with section 11 of this chapter.

11. Regulations for closure of underground oil storage facilities

A. Facility closure requirements

(1) The owner or operator of an underground oil storage facility or tank that has been or is intended to be out-of-service for a period of more than 24 months must close the facility or tank in accordance with this section unless the tank owner has received written permission from the commissioner to remain temporarily out of service in accordance with the requirements of subsection B below. Closure must include:

(a) Proper abandonment of tanks, piping and other facility components;

(b) Emptying and cleaning tanks of all liquids and accumulated sludge;

(c) Storage or disposal of removed tanks in accordance with this section;

(d) Completion of a site assessment in accordance with the requirements of Appendix P for all types of facilities or a portion thereof, except on-site consumptive use heating oil facilities (other than heavy oil facilities), and farm and residential motor fuel tanks of 1,100 gallons or less capacity and where the product is used only by the tank owner or operator; and

(e) Clean-up of discharges and leaks to the satisfaction of the commissioner in accordance with section 12 of this chapter.

NOTE: A site assessment and site assessment report are required as part of facility or tank closure for heavy oil tanks but not for #2, kerosene and other heating oils when stored and consumed on the same premises. Only heating oils heated during storage meet the definition of heavy oil in this rule.

(2) When ownership of the facility or tank is unknown, the current landowner is responsible for facility closure.

NOTE: Maine law (see 38 ~~M.R.S.A.~~M.R.S. § 563-A) requires closure of nonconforming tanks in accordance with this chapter no later than October 1, 1998.

B. Temporarily out of service facilities and tanks

(1) When a facility has been or is intended to be temporarily out-of-service for a period exceeding 3 months and not exceeding 24 consecutive months, the owner or operator shall:

(a) Continue operation and maintenance of the corrosion protection system in accordance with the applicable requirements of this chapter;

(b) Continue leak detection in accordance with the applicable requirements of this rule, unless all liquids including product and water are emptied from the tank with no more than one (1) inch of residual left;

(c) Leave vent lines open and functioning;

(d) Cap and secure all other lines, pumps, man-ways and ancillary equipment;

(e) Submit an annual compliance inspection report in accordance with section 5(D)(20) of this rule and 38 ~~M.R.S.A.~~M.R.S. § 563(9); and

(f) Report and investigate evidence of a leak or discharge in accordance with section 12 of this chapter.

(2) A tank owner may apply in writing for approval of the commissioner to allow a facility to remain temporarily out-of-service for more than 24 consecutive months, if done so before the initial 24 months out of service expires, and when:

(a) The owner can provide documentation that the facility is not leaking;

(b) The requirements of paragraph (1) above are met; and

(c) The facility is constructed in compliance with the applicable requirements of this chapter.

Commissioner approval for a facility to remain temporarily out of service for more than 24 months must be in writing and is conditional upon continued compliance by the facility with the requirements of paragraph (1) above.

(3) If an underground oil storage facility has been out of service for a period of more than 24 consecutive months without written approval in accordance with subsection 11(B)(2) above, or remains out-of-service beyond an approved extension period under subsection 11(B)(2) of a facility's temporarily out-of-service status, the facility may not be brought back into service without the written approval of the commissioner. The commissioner may approve the return to service if the owner demonstrates to the commissioner's satisfaction that:

(a) The tanks and piping are constructed of fiberglass, cathodically protected steel, or another equally non-corrosive material approved by the commissioner;

(b) The tanks are of double walled construction and provided with continuous interstial space monitoring for leak detection;

(c) The facility has conforming suction or double walled pressurized product piping with continuous leak detection;

(d) Facility tanks, piping, sumps and overfill buckets have passed precision testing conducted

in accordance with the requirements of this rule;

(e) The facility is in compliance with all other applicable requirements of this rule; and

(f) The return of the facility to service does not pose an unacceptable risk to ground water resources. In determining if the facility poses an unacceptable risk to ground water resources, the commissioner may consider the age and maintenance history of the facility, the number and consequences of past oil discharges, the proximity of the facility to drinking water supplies and the proximity of the facility to sensitive geological areas, including, but not limited to, significant sand and gravel aquifers mapped by the Maine Geological Survey.

The facility's registration must also be amended in accordance with section 4 of this chapter.

C. Abandonment by removal

(1) Tanks, piping or facilities that have been out of service for 24 months must be removed within 60 days, unless a written request to remain out of service for more than 24 months under section 11(B) (2) above has been approved or has been made and is subsequently approved by the commissioner.

(2) Removal of tanks and facilities must be conducted in accordance with American Petroleum Equipment Institute Recommended Practice 1604 and Appendix J to the satisfaction of the commissioner. For facilities listed in section 11(A) (1) (d), a site assessment must be conducted at the time of removal in accordance with Appendix P.

(3) As required under 38 ~~M.R.S.A.~~M.R.S. § 566-A(5), removal of Class 1 liquid tanks or facilities must be conducted under the direct, on-site supervision of an underground oil storage tank installer certified pursuant to 32 ~~M.R.S.A.~~M.R.S. §§ 10001 *et seq.*.

NOTE: The above requirement applies to gasoline facilities and possibly other liquid petroleum products such as aviation fuel. Fire prevention requirements of this chapter may also be enforced by State and local fire officials.

(4) If underground oil storage tanks that have been removed are stored, the following provisions apply:

(a) Areas chosen for storage may not be accessible to the general public.

(b) Inverted tanks may be stored with unplugged openings. While being transported, openings are to be tightly plugged, screwed plugs must be used and one plug must have a 1/8 inch vent hole to prevent the tank from being subjected to an excessive pressure differential caused by extreme temperature changes.

(c) All stored underground oil storage tanks must be labeled with the warning noted in paragraph (5)(c) below.

(d) Any scale or sludge released by the tank prior to and during storage must be disposed of in accordance with chapter 851 of the D~~d~~epartment's Hazardous Waste Management Rules.

(5) If underground oil storage tanks that have been removed are sold or reused, the following provisions apply:

(a) Bare steel and asphalt coated steel tanks shall not be re-installed for use as an underground oil storage facility;

(b) Fiberglass and cathodically protected tanks may be re-installed, if the tank owner has supplied the commissioner with satisfactory documentation that the manufacturer will warrant the tank for a period of at least 10 years for internal and external corrosion and structural failure, after which the tanks must be properly abandoned pursuant to this section. A written statement attesting to the validity of the warranty, signed by the tank manufacturer, and provided to the commissioner constitutes the only proof of warranty coverage.

(c) All transactions must be accompanied by a bill of sale indicating the former use of the tank. The bill of sale must contain the following warning:

Tank Has Contained Leaded Gasoline or Flammable Liquid

(use applicable designation)

Not Gas-Free

Not Suitable for Food or Drinking Water

(d) The tank must be clearly marked with the notice stated in paragraph (c) above, in legible letters not less than one (1) inch high, regardless of the condition of the tank.

(e) Abandoned underground oil storage tanks are prohibited from use for above ground storage of oil, except where approved by the Maine State Fire Marshal or where a Maine professional registered engineer, or other person meeting the requirements of Maine professional regulation statutes and rules governing professional engineers practicing in Maine, certifies that the tank meets all applicable specifications and requirements in UL 142 and NFPA 30.

D. Abandonment by filling in place

(1) Abandoned facilities and tanks must be removed, except where the owner can demonstrate to the commissioner that removal is not physically possible or practicable because the tank or other component of the facility to be removed is:

(a) Located beneath a building or other permanent structure that cannot be practically replaced;

(b) Of a size and type of construction that it cannot be removed;

(c) Inaccessible to heavy equipment necessary for removal; or

(d) Positioned in such a manner that removal would endanger the structural integrity of nearby tanks.

(2) A facility or tank owner may apply to the commissioner for a variance to abandon a facility or tank in place rather than abandon the tank or facility by removal. The variance may be granted if the commissioner finds that:

(a) Abandonment by removal is not possible or practicable due to circumstances other than those listed in paragraph 1 above; and

(b) The granting of a variance shall not pose a threat to a private or public drinking water supply or the quality of ground water, and is consistent with the intent of this chapter.

(3) All facilities to be abandoned in place must follow the procedures outlined in API 1604 and Appendix K. For facilities listed in section 11(A)(1)(d), a site assessment must be conducted at the time of abandonment in accordance with Appendix P of this chapter.

E. Notification requirements

(1) The owner or operator of a facility or tank, which is to be closed or abandoned, shall notify the commissioner, the local fire department having jurisdiction, and where required by this chapter, the installer overseeing the closure and the person conducting the site assessment. This notice must be in writing and received by the commissioner at least 10 days prior to abandonment, except that when ownership of the facility or tank is unknown, the current property owner is responsible for compliance with the requirements of this section. This notice must include:

(a) The name, mailing address, and telephone number of the owner;

(b) The mailing address and location of the facility;

(c) The size(s) of tank(s) to be abandoned or taken out-of-service;

(d) The type(s) of product(s) most recently stored in each tank;

(e) The registration number of the facility and tank(s) if registered under this chapter;

(f) If the tank has contained a Class I liquid, the inerting procedure and, if applicable, the cleaning location;

(g) If the tank last contained a Class I liquid or contained a Class I liquid in the 12 months prior to closure, the name and signature of the Maine certified tank installer supervising the facility closure and the person conducting the site assessment;

(h) If abandonment in place is planned, the criteria used for justifying abandonment in place, as listed in section 11(D)(1) above;

(i) The approximate age of the tank, if known; and

(j) The date upon which the facility or tank is to be removed or when a variance has been granted pursuant to section 11(C) of this chapter, the date on which the tank or facility will be properly abandoned on site.

(2) The tank owner shall keep a permanent record of the tank location, the date of abandonment, and the method of conditioning the tank for abandonment.

(3) The tank owner is responsible for attaching, to the deed of the property on which the tank was located, a notice that an underground oil storage tank has been abandoned in place pursuant to section 11(D). The deed notation must be executed within 30 days of completion of the abandonment and a copy of the executed notice from the county registry of deeds provided to the commissioner.

NOTE: Siting of new underground oil storage facilities in wellhead protection zones is regulated under 38 ~~M.R.S.A.~~M.R.S., section 1391 et seq. and Chapter 692, the Department's Rules for Siting Oil Storage Facilities. If intending to replace a tank or facility being abandoned in a wellhead protection zone, the facility owner must within 30 days of removal of the existing facility, notify the commissioner and the

municipal code enforcement officer in writing of their intent to replace the facility. Construction of the replacement of the facility must commence within 2 years after the date of removal. A wellhead protection zone includes areas within 300 feet of a private well. In the case of public wells, the wellhead protection zone is the area within 1,000 feet of a public well, or on the source water protection area mapped by the Maine Drinking Water Program in the Department of Health and Human Services, whichever is greater. Without taking the above steps, siting restrictions on the installation of oil storage facilities in wellhead protection areas will apply.

12. Discharge and leak investigation, response and corrective action

A. General requirements

(1) In accordance with 38 ~~M.R.S.A.~~M.R.S. § 568, any facility owner or operator or other responsible party, as defined in 38 ~~M.R.S.A.~~M.R.S. § 562-A(17), when a leak, spill or other prohibited discharge of oil occurs, shall immediately undertake to remove that discharge to the satisfaction of the commissioner, and in accordance with the requirements of this section. In determining the extent of a corrective action, the commissioner and the commissioner's staff shall consider the potential for human exposure and for adverse effects on public safety, health and welfare as well as the environment.

(2) Any evidence of a possible leak or discharge of oil as defined in section 5(D)(11) of this chapter, must be reported to the commissioner by the facility owner or operator within 24 hours of discovery. Actual oil leaks and discharges as defined in section 5(D)(12) of this chapter shall be reported to the commissioner by the facility owner or operator, and the certified tank installer or inspector within two (2) hours of discovery.

Notwithstanding the above, discharges of 10 or less gallons of oil that occur on the facility premises and above the surface of the ground onto a concrete or asphalt paved surface, and that do not reach ground water or surface waters of the State, need not be reported to the commissioner if the owner or operator complies with all of the following requirements:

(a) The discharge is cleaned up within 24 hours of discovery.

(b) A written log is maintained at the facility or the owner's place of business in Maine recording for each discharge, the date of discovery, its source, the general location of the discharge at the facility, the date and method of cleanup, and the signature of the facility owner or operator certifying the accuracy of the log.

(c) The log must be made available upon request within 24 hours for inspection by Ddepartment personnel, authorized agents of the commissioner, and municipal officials.

NOTE: Discharges of oil may be reported by calling the Ddepartment's toll free telephone number, 1-800-482-0777.

(3) Under 38 ~~M.R.S.A.~~M.R.S., section 568(4)(a) any person who causes, or is responsible for, a discharge from an underground oil storage facility in violation of 38 ~~M.R.S.A.~~M.R.S. § 543, is not subject to any fines or penalties for violation of section 543 for the discharge if that person promptly reports and removes that discharge in accordance with this chapter as well as other rules or orders of the commissioner and the board, except that a person who violates any laws or rules administered by the Ddepartment under 38 ~~M.R.S.A.~~M.R.S., chapter 3 subchapter 2-B is subject to fines and penalties..

(4) All hydrogeological or other investigation and corrective action plans required under this section must be certified and stamped by a Maine certified geologist, a registered Maine professional engineer, or a geologist or engineer otherwise in compliance with the Maine professional regulation statutes for geologists or engineers. Geological and hydrogeological interpretations must be certified and stamped by a geologist. Contaminated soil and ground water treatment system design plans must be stamped by an engineer. Implementation of corrective actions must be supervised by a Maine certified geologist, a Maine registered professional engineer, or an engineer or geologist otherwise working in compliance with Maine's professional regulation statutes. Individuals providing the above professional services should be knowledgeable in underground oil storage facility investigation and remediation.

(5) Any investigation of evidence of a possible leak or a discharge, and any removal or remediation of a discharge, that involves excavation, removal or replacement of soil material or a concrete pad, or the use of in situ techniques, above, under, or within 10 feet of a tank or piping, must be attended by an underground oil storage tank installer certified under 32 ~~M.R.S.A.~~M.R.S. §§ 10001 *et seq.* In order to protect the structural integrity of the facility, to prevent further discharges, and to protect public safety and the environment, the certified installer shall supervise and be present at all times when work described above is being performed.

(6) Leaks and discharges of oil shall be investigated and corrected using techniques that are cost-effective, reliable and technically feasible.

(7) Upon determination that an oil discharge has occurred at a facility, that facility may resume partial or full operation while corrective action is taken unless the commissioner determines that a return to operation would interfere with investigation and remediation efforts, and would therefore result in a threat to public health and safety and the environment. No excavation, drilling or soil removal may be undertaken on the facility premises within 5 feet of any pressurized Class 1 liquid (e.g. all gasolines) product lines until such lines have been drained of product. In accordance with NFPA 30 and 30-A, excavation, drilling, or other activities that may act as a source of ignition of flammable vapors at a Class 1 liquid dispensing facility may not be undertaken within 20 feet of a fueling dispenser and nozzle when fully extended, unless the electrical power supply to the dispenser has first been turned off and all fueling operations from that dispenser have ceased.

NOTE: Before undertaking excavation at a facility that will remain in operation, the owner or operator should notify the municipal fire chief in the event a local ordinance applies and a permit is required under NFPA-30 (7.9).

B. Leak investigation and confirmation requirements

(1) The facility owner or operator, or other responsible party shall immediately investigate and confirm all suspected leaks, spills or other discharges of oil to the commissioner's satisfaction within 20 business days of discovery, or another reasonable time period approved by the commissioner, using the following steps or another procedure approved by the commissioner:

(a) Leak detection check. If the facility has leak detection in accordance with this rule and it indicates a possible leak, a check for failures of the leak detection system may be conducted prior to precision testing if the check is concluded within 3 business days of the initial discovery of evidence of a possible leak or discharge. All components of the leak detection system for tanks and piping must be checked for proper operation, recalibrated if an automated or electronic system, and monitored in accordance with the requirements of

this rule and if applicable, the manufacturer's instructions. Monitoring must be conducted for 5 consecutive days. For manual leak detection systems, monitoring must be conducted daily. Records of the findings of the leak detection check and monitoring must be provided to the commissioner. If leak detection monitoring results are conclusive and do not indicate a leak, further investigation is not needed, unless there is other environmental contamination or physical evidence indicating a leak or discharge of oil. If the leak detection results indicate a leak, are inconclusive or the facility does not have leak detection meeting the requirements of this rule, the owner, operator or other responsible party shall conduct a precision test of the facility in accordance with subparagraph b. If leak detection indicates a leak, the owner, operator or other responsible party shall abandon, repair or replace facility components in accordance with appropriate sections of this rule. In addition the owner or operator of a motor fuel facility shall also comply with the testing and replacement procedures outlined in paragraph (d) below.

NOTE: Performing an additional statistical inventory analysis is not an acceptable option under the leak detection check requirements because of the delay to collect the 30 to 60 days of daily product inventory data required by this method.

(b) Precision test. When a possible leak is not attributed to a failure of the leak detection system under subparagraph (a) the owner, operator or other responsible party shall have a precision test conducted of the facility to determine whether and where a leak exists. This test shall be conducted by an independent third party. If an initial precision test is either inconclusive or indicates a failure, the owner or operator may recheck the results by re-testing within two weeks of receipt of the initial test results. A copy of all precision test results must be submitted to the commissioner by the facility owner and the tester.

(i) If precision testing indicates a leak (2 test failures or a single uncontested test failure), the owner, operator or other responsible party shall abandon, repair or replace facility components in accordance with appropriate sections of this chapter and initiate a site assessment in accordance with paragraph 1(c) below and undertake corrective actions as specified in subsection C below. In addition, the owner or operator of a motor fuel facility shall also comply with the replacement procedures outlined below in paragraph (d) of this section.

(ii) If results from a commissioner-approved and properly conducted precision test of the facility conclusively indicates that a leak does not exist, and if no environmental contamination or other physical evidence is the basis for suspecting a leak or discharge, further investigation is not required. The commissioner may, however, require additional precision testing or an in-situ site assessment in accordance with paragraph (c) below for environmental contamination by oil if initial precision tests are inconclusive or improperly conducted.

(iii) The facility owner, operator or other responsible party shall conduct a site assessment as described below in sub-paragraph (c) of this section if precision test results do not indicate a leak exists but evidence of environmental contamination or other physical evidence is the basis for suspecting a leak.

(c) Site assessment

(i) The objectives of the site assessment are as follows:

(a) Determine the presence or absence of a leak or oil discharge where contamination is most likely to be present on the facility site;

(b) Identify the presence of free product, oil saturated soils and soils contaminated above the applicable notification levels in Appendix Q of this chapter;

(c) Determine the degree of a threat to ground water quality; and

(d) Consider the nature of the oils stored at a facility, the cause for suspecting a leak or discharge, the type of backfill and soils, the depth of ground water, the depth of bedrock, and other factors appropriate for identifying the presence and source of a leak or other discharge.

(ii) The site assessment must be conducted in accordance with procedures outlined in Appendix P of this chapter. To verify the presence or absence of a leak or oil discharge at an operating facility in follow-up to the requirements of paragraphs (b) (ii) or (iii) above, in-situ hydrogeological investigation procedures outlined in paragraph 10 of Appendix P must be followed.

(iii) If site assessment results for the excavation zone and other areas of the facility site indicate that a leak, spill or other discharge of oil has occurred, the owner or operator shall properly abandon, repair or replace facility components and begin corrective actions in accordance with subsection C below.

(iv) If the site assessment results for the excavation zone and other areas of the facility site do not indicate a leak, spill or other discharge of oil has occurred, further investigation is not required.

(d) Within 30 business days of discovery of evidence of a possible leak or another time period approved by the commissioner, the owner, operator or other responsible party shall submit a report on the steps taken and the findings of leak investigation and confirmation efforts. The report must include the name, address, and telephone number of the person to contact for more information, and a site assessment report meeting the requirements of Appendix P except that the reporting deadline is as specified above in this subparagraph.

NOTE: 38 ~~M.R.S.A.~~M.R.S. § 568(6), allows for reimbursement by the D~~d~~epartment of documented removal costs incurred by a tank owner or operator where a tank or facility was required by the commissioner to be removed or closed upon evidence of a leak or discharge, but later determined by a site assessment or hydrogeological investigation not to be a source of a leak or oil discharge. The facility owner or operator under these circumstances also may apply for economic damages such as loss of income through the 3rd party damage claim process outlined in 38 ~~M.R.S.A.~~M.R.S. § ~~569-A~~551.

C. Minimum corrective action requirements

(1) First response measures

(a) Identify and mitigate fire, explosion and acute vapor hazards to the satisfaction of the commissioner and the local public safety agency having jurisdiction within 24 hours of discovery of a leak or discharge or another time period approved by the commissioner.

(b) Take immediate action to prevent any further discharge of oil from the facility to the environment within 24 hours of discovery of leak or discharge, or another time period

approved by the commissioner. This includes ceasing use and removing from those tanks and associated piping suspected or tested to be leaking as much oil as necessary to entirely stop the discharge. All tanks and piping shall be abandoned in accordance with section 11.

(c) Remove the tanks and associated piping as soon as possible in accordance with section 11 of this rule except that compliance with the waiting period between notification and abandonment is hereby waived.

(d) Prevent further migration of oil into surrounding soils and ground water and surface water, including the removal of any free product in the vicinity of the tanks and piping or other source of leak or discharge. Recovery of free product shall be initiated immediately upon discovery and followed by submission of a free product abatement plan, meeting the requirements of paragraph 3 of this subsection, minimum corrective actions.

(e) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that has migrated from the excavation zone and entered into structures, sewers and utility conduits.

(2) Initial public exposure assessment and abatement. The facility owner, operator or other responsible party shall complete initial public exposure assessment and abatement measures listed below and required by the commissioner within 30 business days of confirmation of a leak, discharge or contamination, or within another time period approved by the commissioner.

(a) Identification of impacted and potential human receptors. Existing and potential public health risks are to be identified for the purpose of establishing initial remediation objectives. Priority shall be given to the identification of human exposure to oil contaminated drinking water supplies and indoor air in occupied buildings, followed by an assessment of the potential for human exposure by way of ground water and drinking water contamination, vapor intrusion pathways, soil off-gassing and direct soil contact.

(b) Initial soil remediation. Remediate all oil saturated soils, and contaminated soils that are deemed by the commissioner to present a threat to public or private drinking water supply wells. In addition, remediate up to 200 cubic yards of contaminated soils beyond any excavation required to install a replacement facility which pose a risk to ground water or surface water, or a contact risk to residents, recreation facility users, or workers based on action levels established by the commissioner on a case by case basis. Soil remediation decisions will be based on soil contamination concentrations measured in accordance with the Ddepartment's Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil (April 20, 2011), or another soil sampling plan approved by the commissioner. Measurement of residual soil contamination concentrations following source removal are to be conducted by the same methods. Acceptable laboratory methods and performance standards to be used to analyze soil samples are found in Appendix S. Oil contaminated soils and uncontaminated soils are to be physically separated to the maximum extent possible to avoid unnecessary remediation costs.

(c) Soil treatment. The method and location of contaminated soil treatment or processing (in-situ or above ground) must be approved by the commissioner and, if to be treated off the facility site, must comply with applicable regulations administered by the commissioner.

(d) Soil disposal. Oil contaminated soils may be disposed at a Maine landfill that is specifically licensed by or otherwise has been approved by the Ceommissioner or

Ddepartment for such disposal. This paragraph does not preclude disposal at a properly licensed out of state disposal or treatment facility.

(e) Identification and sampling of nearby drinking water supply wells. Identify, and using a Global Position System (GPS) receiver or other similar technology approved by the commissioner, locate any water supply wells on the facility parcel, and the closest private and public water supply wells to the facility on abutting properties or within 500 feet of the facility. These wells are to be sampled and analyzed for petroleum hydrocarbons and other oil constituents in accordance with Appendix S and as required by the commissioner. When wells are found contaminated, the commissioner may require the sampling of additional wells to ensure all water supplies contaminated by a leak or discharge are identified. The commissioner may require water supplies suspected to be at risk of contamination ~~also~~ to be sampled, as site conditions warrant, including any public well whose mapped source water protection area includes a portion of the facility. Wells experiencing possible petroleum odor and taste problems and located in reasonable proximity to the facility shall also be sampled. The owners of all wells sampled shall be provided with a copy and explanation of the results within 10 business days of receipt. If a public drinking water supply is found to be contaminated, the Drinking Water Program in the Maine Department of Health and Human Services must be notified within 24 hours of discovery. Water samples must be analyzed in accordance with the requirements of Appendix S.

(f) Interim treatment of contaminated private water supply wells. Owners of private water supplies found to be contaminated with oil from a confirmed leak or discharge from a facility shall be offered and provided with point-of-entry (POE) water treatment within 10 business days of the discovery of contamination. Water supply wells contaminated with arsenic or other metals released from soil or bedrock by an oil discharge and exceeding a primary federal drinking water standard or State maximum exposure guideline shall be provided with treatment meeting with the satisfaction of the commissioner. Such treatment shall reliably reduce the level of contamination below primary drinking water standards and Maine Department of Health and Human Services maximum exposure guidelines. For water supplies contaminated with total volatile or extractable petroleum hydrocarbons below 1 ppm and MTBE below 100 ppb, two granulated activated charcoal filters of adequate volume, installed in series may be used. Contamination above these levels requires treatment by aeration. Other point-of-entry treatment systems may be used when demonstrated to be effective and reliable in reducing oil contamination and approved by the commissioner. If treatment does not reduce contamination levels below required health standards, the commissioner may require different or additional interim remedial measures to avoid human exposure to oil contaminants or other contaminants present due to the oil contamination.

(g) Treatment of contaminated public water supplies. The commissioner may require contaminated public water supply wells to be provided by the owner, operator or other responsible party with treatment adequate to reduce oil concentrations and other contaminant concentrations below primary drinking water standards and Maine Bureau of Health maximum exposure guidelines. The treatment system must be designed by a professional engineer registered in Maine or working in conformance with Maine professional regulation statutes and rules, and be approved by the commissioner, the Maine Drinking Water Program and the public water supply owner.

(h) Water supply monitoring requirements

(i) Contaminated water supplies must be monitored by sampling once every 3 months before, between and after treatment devices for as long as the system is operating. Water shall be analyzed for petroleum hydrocarbons, oil constituents and other applicable parameters as required by the commissioner. Water supply sampling and analyses must be conducted in accordance with Appendix S.

(ii) Water supplies found to be contaminated with oil below established health standards and guidelines must be monitored every 3 months for petroleum hydrocarbons, oil constituents and other parameters required by the commissioner. Water supplies located in close proximity to and adjoining to contaminated ones must, along with other wells deemed by the commissioner to be at significant risk of contamination, also be monitored in accordance with the above requirements.

(iii) Monitoring of contaminated water supplies and supplies deemed at significant risk of contamination must continue until either use of the supply is discontinued, four (4) consecutive quarterly monitoring results do not detect contamination by oil or its components above a commissioner established action level, or monitoring is suspended by the commissioner because it is no longer needed for other reasons.

(iv) Monitoring results must be provided to the commissioner and the water supply owner within 7 days of receipt.

(i) Water supply treatment systems must be maintained in proper operating condition until completion to commissioner satisfaction of a potable replacement drinking water supply or the completion of long-term correction actions and settlement of third party damage claims under 38 M.R.S.A., subsection ~~569-A~~551.

(j) Within 30 days after confirmation of a leak or other discharge of oil or another time period approved by the commissioner, the owner, operator or other responsible party shall submit a written report to the commissioner for approval. This report shall summarize the initial public exposure assessment and abatement measures taken, their effectiveness, an assessment of impacted and threatened human receptors, supporting analytical data or laboratory analyses, documentation that affected parties and the Maine Drinking Water Program have been properly notified, and the need for investigation of the extent and severity of contamination or for additional human exposure abatement and remediation measures.

Upon consideration of the results and findings presented above, proximity to important ground water or surface water resources or other relevant information developed by the commissioner; the commissioner may require an initial contamination investigation in accordance with paragraph 4 below as well as additional initial abatement measures.

(3) Free product recovery. Free oil product must be recovered or removed to the satisfaction of the commissioner at all sites where found. A free product abatement plan shall be submitted for the review and prior approval of the commissioner. The free product abatement plan must be submitted within 30 days of discovering free product or another time period approved by the commissioner. Such a plan must include, at a minimum:

(a) Methods for product control. Control of free product migration and the removal or recovery of all free product that is technically feasible shall be the minimum objectives of any abatement plan. Free product removal or recovery must be conducted in a manner that minimizes the spread of contamination into previously uncontaminated zones using

techniques appropriate to the hydrogeological conditions of the site, and that properly treats, discharges or disposes of recovery byproducts.

(b) Methods to handle any flammable products in a safe and competent manner to prevent fires or explosions.

(c) The name of the person(s) responsible for implementing free product removal or recovery procedures.

(d) The estimated quantity, type and thickness of free product observed or measured in wells, bore holes and excavations.

(e) The location of any discharge of dissolved phase oil contaminated water. Any discharge of free oil product or a free product and water emulsion is prohibited.

(f) The type of treatment to be applied to and the effluent quality expected from any discharge.

(g) The disposition and handling of recovered free product.

(h) If removal is to include soil gas venting, the quality and quantity of expected air emissions.

(4) Initial contamination investigation

(a) The objectives of the initial contamination investigation are to characterize the hydrogeology of the facility and the surrounding area; to determine the concentration and extent of soil and ground water contamination; to determine the direction of contamination movement; to identify what environmental resources and receptors are at significant risk of contamination; to evaluate the potential of a vapor intrusion threat to nearby buildings; to develop a conceptual model of the contamination's fate, transport, and threat to receptors; and to determine the need for and the objectives of further investigation and long-term corrective actions. The initial contamination investigation study must cover the facility site and those areas known or suspected to be contaminated by oil from the facility discharge.

(b) The following existing data, where available, must be compiled and reviewed:

(i) Soils maps;

(ii) Aerial and satellite photographs;

(iii) Well logs for all contaminated wells and wells on properties abutting a parcel with a contaminated well and all other wells within 500 feet of the facility;

(iv) A suitable base map at a scale of 1"=500' or less showing the location of existing structures, private and public drinking water supply wells within 1000 feet of the facility, source water protection areas for public water supplies mapped by the Maine Drinking Water Program, significant sand and gravel aquifers mapped by the Maine Geological Survey, ground water monitoring wells (if any), current and past locations of oil storage facilities, location of subsurface waste disposal systems and dry wells, other potential contamination sources, property ownership, surrounding land uses, rights-of-way, roads, and existing underground utilities;

(v) Surface water bodies, including intermittent streams, wetlands and flood plains;

(vi) Regional bedrock geology; and

(vii) Surficial geology.

(c) Subsurface oil contaminated soils investigation. A subsurface investigation of oil contaminated soils on and off the facility property shall be conducted based on a sampling plan submitted for commissioner approval and relying on geo-probing, soil test pits, or other in-situ methods approved by the commissioner to determine the depth and areal extent of oil contaminated soil, contamination concentrations, physical soil properties, depth to ground water and bedrock if feasible, presence and depth of a confining strata, and ground water contamination concentrations. Products of the oil contaminated soil investigation are to include estimates of the volume of soil posing a threat to receptors, and the mass of the oil contained in those soils.

(d) When drinking water supplies or significant ground water sources are contaminated or at risk, a potential vapor intrusion risk to an occupied structure exists, the potential for contamination of a surface water body is present, or other site specific conditions require ground water quality and flow data for remediation decisions, the commissioner may require the installation of ground water monitoring wells and submission of a ground water sampling plan. The following minimum data must be collected and logged during the boring and sampling of ground water monitoring wells:

(i) Soil and subsoil conditions and types (described using the unified soil classification system);

(ii) Presence and depth of confining strata;

(iii) Presence, depth of free oil products;

(iv) Depth of water table;

(v) Presence and depth of bedrock; and

(vi) Continuous split spoon logging screening for oil contaminated soils above the water table using the field methodology outlined in Appendix Q or another technique of comparable precision and reliability approved by the commissioner.

(e) Water quality sampling and analyses requirements include:

(i) Each well must be properly developed and allowed to stabilize prior to sampling;

(ii) Water samples shall be collected and analyzed for petroleum hydrocarbon fractions and target chemicals using the Massachusetts Department of Environmental Protection's volatile and extractible petroleum hydrocarbon laboratory methods. Other chemical analyses may be required by the commissioner where needed to assess the extent of and the public health risk of contamination;

(iii) Laboratory analysis of water samples must be conducted in accordance with the requirements of Appendix S; and

(iv) At least 2 complete rounds of sampling are required from all monitoring points, including surrounding water supply wells, at least one month apart.

(f) Nearby surface water bodies likely to be affected must be sampled and analyzed for oil.

(5) Within 90 days of a commissioner request to perform an initial contamination investigation, or another time period approved by the commissioner, the owner, operator or other responsible parties shall submit a report of the findings and conclusions of the initial contamination investigation to the commissioner for review and approval. The following data, results and conclusions must be included in the report:

(a) Data and sample collection and analysis methods used;

(b) Hydrogeological site description addressing the general geological setting of the site, potential and present contamination hazards, bedrock and overburden interconnection, extent and location of ground water and soil contamination, the direction and rate of contamination migration, ground water and surface water resources at risk of contamination, identification of water supply wells contaminated or at imminent risk of contamination, and identification of receptors at risk of hydrocarbon vapor problems;

(c) Soil, soil gas and indoor air, ground water and surface water quality data, including all field and laboratory data, and the relationship of measured contaminant levels to State of Maine and federal allowable contaminant standards or guidelines;

(d) Minimum data and findings to be presented in tables, figures or appendices:

(i) Detailed site/locus map;

(ii) Geologic maps or cross sections to illustrate the site's geological setting;

(iii) Ground water contour map;

(iv) Geophysical survey map, if any;

(v) Table or map showing water quality sampling results;

(vi) Soil sampling results;

(vii) Boring logs and well installation details; and

(viii) All testing laboratory reports and results.

(e) A conceptual site model integrating the findings of investigation work to date, evaluating exposure pathways and the risks to public health and environmental receptors, and identifying critical information gaps needed for remediation decision-making.

(f) Recommendations addressing the need and objectives for additional contamination investigation or monitoring, and the need for additional immediate abatement measures and/or corrective actions for long-term remediation of oil discharges.

(6) Upon review of the initial investigation report, the commissioner may require the owner, operator or other responsible party to undertake further investigations to determine the need, objectives and feasibility of long-term corrective actions, or the commissioner may require responsible parties to undertake long-term corrective action in accordance with paragraph D below of this section.

D. Long-term corrective actions. The facility owner, operator or other responsible party may be required by the commissioner to provide replacement potable drinking water, to mitigate the risk of contamination to private and public drinking water supplies or important ground water

or surface water resources, to prevent human exposure to unhealthy petroleum vapors or soil contact, to control fire and explosion hazards, to protect or restore important biological resources, and to otherwise protect the public health, safety and the environment. Because of the site specific needs and objectives of long-term corrective actions, the owner, operator or other responsible party may be required by the commissioner to submit for approval a long-term corrective action plan. The schedule for submitting, the format, additional information needs, the overall contents and the objectives of the long-term corrective action plan will be determined by the commissioner on a site by site basis. All required long-term remediation plans will identify feasible remediation alternatives and evaluate their long-term cost effectiveness in meeting the remediation objectives established by the commissioner for an oil contamination site. If a facility owner or operator applies for and is eligible for coverage of their remediation costs from the Maine ~~Ground Water Oil Clean-up Fund~~ Ground and Surface Waters Clean-up and Response Fund under 38 ~~M.R.S.A.~~M.R.S., section 568-A, an annual budget and implementation schedule for the recommended remediation alternative shall be submitted for commissioner review and approval as part of the long-term remediation plan.

E. Public information and participation requirements

(1) At the time of submission to the commissioner, copies of the leak investigation and confirmation report, the initial response and abatement report, the free product abatement plan, the initial contamination investigation report and the long-term corrective action plan must be sent by certified mail by the owner, operator or other responsible party to the chief municipal officer with jurisdiction or the county commissioners if in an unorganized township, who are responsible for ensuring these documents are available to the public for inspection at the municipal or county offices. The leak investigation and confirmation report and free product abatement plan also must be provided to the local fire chief with jurisdiction.

(2) The owner, operator or other responsible party shall provide a copy of the leak investigation and confirmation report by certified mail to owners of land parcels abutting the facility and to holders of an easement or a right-of-way for an underground utility conduit on the facility or along a public or private road abutting the facility.

(3) Prior to approving a long-term corrective action plan, the commissioner may hold a public meeting to inform and to solicit comments from impacted residents, abutting landowners and local officials. The commissioner shall provide written notice 7 days in advance of such a meeting to affected parties, including at a minimum impacted residents and the chief municipal officer, and the responsible parties, if known. When a long-term corrective action effort is to be terminated prior to meeting the objectives of the long-term corrective action plan, the commissioner shall provide written notice by certified mail to the chief municipal officer with jurisdiction or the county commissioners if an unorganized township, and to residents who have suffered oil contamination.

F. Environmental data analysis methods and quality assurance requirements.

(1) Water, soil, soil gas and air samples are to be analyzed in accordance with Appendix S; and

(2) Samples are to be collected in accordance with laboratory method instructions, established environmental media sampling protocols, and a quality assurance plan approved by the commissioner.

G. The commissioner may require ground water, soil and other environmental sample locations and quality data to be submitted in an electronic form compatible with the Maine Environmental Geographic and Analysis Database (EGAD). The format shall be provided by the commissioner.

H. Nothing in this section limits Ddepartment authority or discretion under 38 ~~M.R.S.A.~~M.R.S. § 568 to order or undertake immediate remedial or corrective action at sites where evidence of contamination by oil is present.

13. Severability. If any provision of this rule is declared invalid or ineffective by a court decision, the decision does not invalidate any other provision of this rule.

Appendix A: Requirements for Cathodic Protection Monitoring

1. For Galvanic Cathodic Protection Systems

A. All measurements must be made by placing a saturated copper/copper sulfate reference electrode in direct contact with the soil electrolyte.

B. The copper/copper sulfate electrode must be placed over the center line of each tank and within 1 foot of each piping run. For single-walled tanks a minimum of three (3) measurements are to be made over the center line of each tank, one at each end and one at the tank's midpoint. For double-walled tanks, a minimum of one voltage measurement over each tank's midpoint is required.

C. All measurements must be recorded using a direct current voltage measuring device with a minimum of 10 megohms input impedance, accurate to at least + 1% at 1 volt.

D. A measurement of at least negative 0.85 volts must be recorded for each test location and each metallic facility component, including tanks, piping, and connectors that are cathodically protected.

E. The tank owner shall repair or replace the system in accordance with the recommendations of the National Association of Corrosion Engineers, Recommended Practices 0285-2011 and section 5(D)(17) of this rule whenever the system does not register a negative voltage reading of at least 0.85 volts for each tank or piping run within six (6) months of the failed measurement, or properly abandon in accordance with section 11of this rule, except as provided for in paragraph G for a new installation.

F. The frequency of cathodic protection monitoring must be consistent with the requirements outlined in section 5(D)(4) and (5).

G. When a negative voltage of at least 0.85 volts is not achieved upon installation, the measurement must be repeated within 6 months. Upon failing to achieve a negative voltage of at least 0.85 volts after the 6-month period, the tank owner shall comply with paragraph E, above.

H. A cathodically protected steel tank or piping that continues to fail to achieve the minimum level of adequate corrosion protection of at least 0.85 volts within six (6) months of repair or replacement in accordance with paragraph E shall be properly abandoned in accordance with section 11.

2. For Impressed Current or Galvanic Cathodic Protection Systems

Test methods and criteria as described in the National Association of Corrosion Engineers TM 0101, Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Tank Systems, or TM 0497, Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Piping Systems, are to be used to monitor impressed current systems. These methods for testing galvanic systems may be used with prior written approval of the commissioner.

NOTE: Structure to soil potentials measured when the soil is frozen may be inaccurate because of the increased resistance of the soil electrolyte. Cathodic protection monitoring schedules should be planned to avoid frozen soil conditions.

Appendix B: Requirements for Tank, Piping Line and Sump Tightness Tests

1. Volumetric tank tightness test requirements for single walled tanks

A. For all tanks without overfill and spill prevention equipment installed in accordance with section 5(B)(3) or 6(B)(3) and properly operating, all tests must be conducted by overfilling the tank at least to grade level. For tanks with operating overfill and spill prevention equipment meeting the requirements of this rule, tests may be conducted if the tank is at least 60 percent full, provided the test is in accordance with manufacturer protocols and with any limitations determined by independent testing in accordance with U.S. Environmental Protection Agency approved protocols, or other protocols approved by a nationally recognized independent testing organization, including but not limited to the ASTM and the National Work Group on Leak Detection Evaluations.

B. All tests must take into consideration all variables which may affect the determination of a leak rate, including, but not limited to, temperature, pressure, external water table elevation, vapor pockets and tank end deformation.

C. External water table elevation must be verified via a tank backfill ground water observation well at the time of testing for each tank location. The observation well is to be installed in accordance with paragraph 5 of this appendix.

D. All tests must be performed in strict conformity to all of the testing equipment manufacturer's operating procedures, and the following standard protocols:

(1) Tests must not be conducted during a fluctuating ground water table;

(2) Height-to-volume conversion factors must be measured rather than calculated;

(3) The test must be conducted under nearly constant hydrostatic pressure; and

(4) If the tank is less than 95% full during the volumetric test then the ullage space must also be tested using an appropriate tank tightness test method.

2. Non-volumetric tank tightness tests requirements for single walled tanks

A. Non-volumetric and all other tank tightness tests must be performed in strict conformity to the manufacturer's protocols as used in the method's independent performance testing.

B. The groundwater elevation must be measured at the time of testing via a ground water observation well installed in accordance with paragraph 5 of this appendix. If ground water is encountered in the observation well, a sample is to be taken and visually inspected for the presence of free product.

3. Piping line tightness test requirements for single walled piping

A. All pressurized product piping tests must be performed at 150% operating pressure, or if performed at a lower pressure, it must be able to obtain a leak rate equivalent or smaller than that determined by the piping test method's independent performance testing in accordance with U.S. Environmental Protection Agency approved protocols.

B. All tests must be performed in strict conformity to all of the testing equipment manufacturer's standard operating procedures. In addition, the test must be run a minimum of one hour.

4. **Tightness testing of tanks and piping with secondary containment.** The integrity and tightness of tanks and piping with secondary containment shall be tested in accordance with sections 4 and 5 of the Petroleum Equipment Institute Recommended Practice for Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities, PEI 1200-2012 or in accordance with protocols reviewed and approved by the commissioner prior to use.

5. **Tightness testing of sumps and overfill buckets.** Sumps and overfill buckets will be tested by a method approved by the commissioner, and in accordance with testing procedures outlined in section 6 of the Petroleum Equipment Institute, Recommended Practices for Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities, PEI 1200-2012.

6. **Other requirements**

A. Testing technicians shall be certified by the manufacturer of the testing equipment.

B. The additional requirements of this paragraph apply to the testing of single-walled tanks used to store ethanol blended gasoline.

(1) Tightness tests must be conducted with 10 or less inches of product in the tank using a test method approved for use with such product levels; and
(2) The tank must be tested manually for water and phase-separated gasoline.

C. For double-walled tanks and piping, the integrity of both the inner and outer walls will be tested by testing the interstitial space rather than just the primary containment. All sumps and overfill buckets will be tightness tested at the same time as the tank and piping.

D. Tank and piping tightness tests involving the removal and reinstallation of existing facility components, including but not limited to, leak detection or overfill prevention equipment, drop tubes, or vent valves, must have an underground oil storage tank installer or inspector present to supervise such facility equipment removals and repairs. The installer or inspector must be certified by the Maine Board of Underground Oil Storage Tank Installers and by the manufacturer of the equipment being repaired, when such manufacturer certification is available. Tank testing involving excavation above, around or in close proximity to tanks or piping also requires a Maine certified tank installer to be present to supervise such excavation in accordance with section 5(D)(21) of this rule.

E. Ground water elevation observation well installation. The observation well to determine the elevation of ground water is to be installed in the sand, gravel or pea stone backfill of the tank excavation to a depth of one (1) to two (2) feet below the tank bottom in accordance with Petroleum Equipment Institute Recommended Practice 100-2011. The observation well is to be a minimum of 1 inch in diameter and may be installed using direct push technology. The well is to be constructed of factory screened PVC pipe. Well screening is to start 5 feet above the ground water table and extend to the bottom of the well. Wells are to be installed flush with the ground surface and in a raised, limited access road box. The annulus around the well is to be sealed with bentonite or a similar sealing material from 2 feet above the screen upward to the bottom of the road box. Permeable sand is to be placed around the road box so that water can drain from the road box. A Maine certified underground tank installer is to be present during the installation of the well to minimize the risk to the structural integrity of the facility.

F. All test results must include the following information in order to be accepted by the commissioner:

(1) Facility name, address, registration and tank number, and the product stored;

(2) Depth to ground water and whether free product was found in the ground water observation well;

(3) Whether the facility components tested passed or failed, and the measured leak rate;

(4) The method's threshold for declaring a leak; and

(5) Certification that the test method has been performed according to the manufacturer's protocols used in the third party evaluation, or a protocol for double-walled tanks approved by the commissioner, and that ground water elevation was measured and taken into account in determining if a leak was present .

G. Written test results must be submitted to the commissioner by the facility owner and the tester when conducted to verify evidence of a possible leak. Routine annual precision tests conducted to meet the requirements of section 5(C)(2)(a) or 5(F) of this rule need only to be submitted by the facility owner.

Appendix C: Requirements for Pneumatic (Air) and Other Pre-installation Tightness Testing

For Piping and Tanks

1. Air pressure testing of tanks and piping shall only be performed on new, empty tanks and piping, which have never contained product, and the manufacturer has not specified an alternate means of tightness testing.

2. When conducting an air pressure test on metallic tanks or piping, all external joints, seams and connections shall be soaped.

3. The test shall be maintained for a minimum of 1 hour, and all soaped areas shall be visually inspected for bubbles or any other indication of a leak.

4. Any loss of pressure or appearance of bubbles shall constitute failure of the test.

Piping

5. Underground piping shall be physically isolated from the tank prior to the test.

6. Underground primary piping shall be air tested to 150% of the maximum anticipated pressure of the system, but not less than fifty (50) pounds per square inch (psi) gauge at the highest point of the system.

7. Underground secondary piping must be tightness tested before being backfilled in accordance with manufacturers' instructions.

Tanks

8. Tanks shall be tested before being covered, enclosed or placed in service.

9. Primary tanks must be air tested at not less than three (3) pounds per square inch (psi) and not more than five (5) pounds per square inch (psi) gauge. Gauges used during air testing of tanks must have a maximum limit of 10-15 pounds per square inch (psi).

10. The interstial space of double-walled tanks must be tightness tested following the manufacturer's instructions.

Appendix D: Installation Requirements Applicable to New and Replacement Tanks

1. All new and replacement tanks and associated leak detection and overfill and spill prevention equipment must be installed in accordance with manufacturer's instructions and the following nationally accepted codes of practice: American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage Systems"; Petroleum Equipment Institute (PEI) Publication RP 100-2011, "Recommended Practices for Installation of Underground Liquid Storage Systems"; and National Fire Protection Association Code 30, 30A or 31.

   NOTE: Tank installation instructions may require specific sized pea stone or gravel. Instructions also may specify mechanical compaction or layered placement of bedding and backfill. Always consult the installation instructions provided by the manufacturer, prior to installation.

2. Cathodically protected steel tanks must be set on a firm base and surrounded on all sides with at least 24 inches of noncorrosive inert material, such as clean sand, pea stone, or gravel, well tamped in place. The tanks must be placed in the hole with care, making sure not to scrape the protective coating off coated tanks, or damage attached cathodic protection components. Cathodic protection systems require electrical wiring connected to the tank at each end and at its centerline, and accessible for voltage readings at the ground surface as well as three (3) locations along the centerline of the tank to place a reference electrode in contact with the soil.

3. Cathodically protected steel underground tanks must be covered with a minimum of 2 feet of sand, pea stone or gravel, or with not less than 1 foot of sand on top of which is placed a slab of reinforced concrete not less than 4 inches thick. This fill must be free of debris, boulders, large rocks or other materials that may cause abrasions to the protective coating of the tank. When tanks are, or are likely to be, subjected to traffic, they must be protected from damage from vehicles passing over them by at least 3 feet of backfill or, 18 inches of well-tamped backfill plus 6 inches of reinforced concrete or 8 inches of asphalt paving. When asphalt or reinforced concrete paving is used as part of the protection, it must extend at least 1 foot horizontally beyond the perimeter of the tank in all directions.

4. All cathodically protected steel and nonmetallic fiberglass tanks must be installed in accordance with manufacturer instructions. The minimum depth of cover is as specified in section 3 above.

5. New underground tanks must be tested for tightness before being covered or placed in use by a test method approved by the manufacturer. If a pneumatic test is conducted, it should be done in conformance with the requirements of Appendix C.

   NOTE: Air pressure testing when petroleum vapors are present in the tank may result in explosion, and shall not be conducted after petroleum product has been placed in the tank.

6. All temporary supports must be removed prior to final backfilling.

7. All electrical wiring must be performed in accordance with the current State of Maine electrical code.

8. Anchoring is required when a tank is installed in an area where groundwater will be in contact with the tank or in a 100 year flood plain as mapped by the Federal Emergency Management Agency (FEMA), or if such mapping is unavailable, as determined by the flood of record or by the presence of flood plain soils. When anchoring tanks equipped with cathodic protection, the holddowns must be

electrically isolated from the tank. Anchoring of all tanks must be performed in accordance with the tank manufacturer's specification or PEI Publication RP 100-2011.

NOTE: FEMA flood plain maps are available for inspection at most municipal offices.

Appendix E: Installation Requirements for New and Replacement Piping

1. All new and replacement piping, sumps and associated leak detection must be installed in accordance with the manufacturer's instructions and the following nationally accepted codes of practice: American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage Systems", Petroleum Equipment Institute (PEI) Publication RP 100-2011, "Recommended Practices for Installation of Underground Liquid Storage Systems", STI Standard R 892, and NFPA 30, 30A and 31.

2. Before underground piping is installed, the trench must receive as a minimum a 6-inch deep bed of well compacted noncorrosive material such as clean sand, pea stone or gravel. All trenches must be wide enough to permit at least 6 inches of noncorrosive backfill material around all lines.

3. Prior to being covered or placed in service, all new and replacement piping must be tested for tightness by a method approved by the manufacturer. Air pressure tests are to be conducted in accordance with the requirements of Appendix C, and hydrostatic tests must be conducted in accordance with the requirements of Appendix B.

4. All temporary supports must be removed prior to final backfilling.

5. All vent piping for storage of Class I liquids must extend at least 12 feet above the ground surface and be positioned such that vapors will not pose a hazardous condition.

6. Fill piping for storage of Class I liquids must be set back from any building opening in accordance with National Fire Protection Association Codes 30, 30A or 31.

7. Product supply lines used in conjunction with pressurized pumping systems must be installed with a product line leak detection device. All leak detection devices must be tested for proper operation before the remote pumping system is used after initial installation and once annually thereafter. All leak detectors must be capable of detecting a leak at a rate of at least 3 gallons per hour at a line pressure of 10 psi within one hour of occurrence with a 95 percent probability of detection and a 5 percent probability of false alarm.

8. A crash valve must be installed under dispensers of pressurized pumping systems in accordance with the National Fire Protection Code 30A.

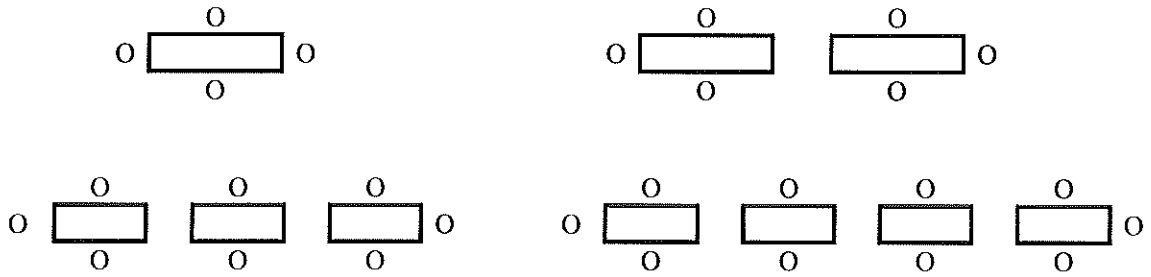
9. Conventional suction systems must have no more than one check valve per pump. The check valve must be located as close to the pump as possible, such that any leaks in the line will result in a return of product to the tank. Supply and return piping for a facility storing oil for an emergency standby generator are exempt from this requirement if secondary containment with continuous interstitial space monitoring is provided in accordance with section 5(B)(2) of this rule.

10. When the product dispenser of a motor fuel facility is at a lower elevation than all or a portion of the tank height, an anti-siphon ("normally closed") valve must be installed as close as physically possible to the start of the down-gradient run of the product piping in order to prevent the loss of the tank contents in the event of a piping leak.

Appendix F: Specifications and Requirements for Vertical Ground Water Monitoring Wells at Existing Facilities

These requirements only apply to existing facilities, fully installed as of April 19, 1990.

1. Sufficient number of vertical ground water monitoring wells must be installed to detect a leak from every tank by including a minimum of four monitoring wells for each tank or where more than one tank is installed in the same continuous excavation, the minimum number of monitoring wells shall be installed as diagrammed below:



When more than one tank is installed in a continuous excavation hole, alternate numbers and positioning of ground water monitoring wells may be used when determined by a Maine registered professional engineer or Maine certified geologist as capable of detecting a leak or discharge from every tank and meeting the performance and installation requirements of section 5(C) of this rule. Such an alternate ground water monitoring plan must be certified by a Maine registered professional engineer or Maine certified geologist, and submitted to the commissioner as part of the facility's registration materials.

2. Monitoring wells must be a minimum of 2 inches in diameter.

3. The slotted zone must extend at least 5 feet into the water table and at least 5 feet above the groundwater surface, as determined at the time of installation; or when installed within a secondary containment liner, the slotted zone must extend to within 6 inches of the low point of the liner.

4. The screened portion of the well must be a minimum of 10 feet in length and must be factory slotted with a slot size of .010 inch.

5. Monitoring wells must be installed with a cap at the bottom of the slotted section of the well.

6. Monitoring wells must not be constructed of schedule 20 PVC "sewer" or leach field piping.

7. Monitoring wells must be constructed of flush joint, threaded schedule 40 PVC or other materials and designs approved by the commissioner.

8. Monitoring wells must be numbered such that all monitoring and testing results are easily correlated to a specific monitoring well location.

9. All monitoring wells must be equipped with liquid-proof lockable caps.

10. Monitoring wells must be properly distinguished from fill pipes.

11. The area around the screened portion of the well shall be surrounded by a porous medium (e.g. sand, gravel or pea stone).

12. The outside of the monitoring wells risers must be sealed using bentonite or a similar product to a depth of 1 1/2 feet below ground surface.

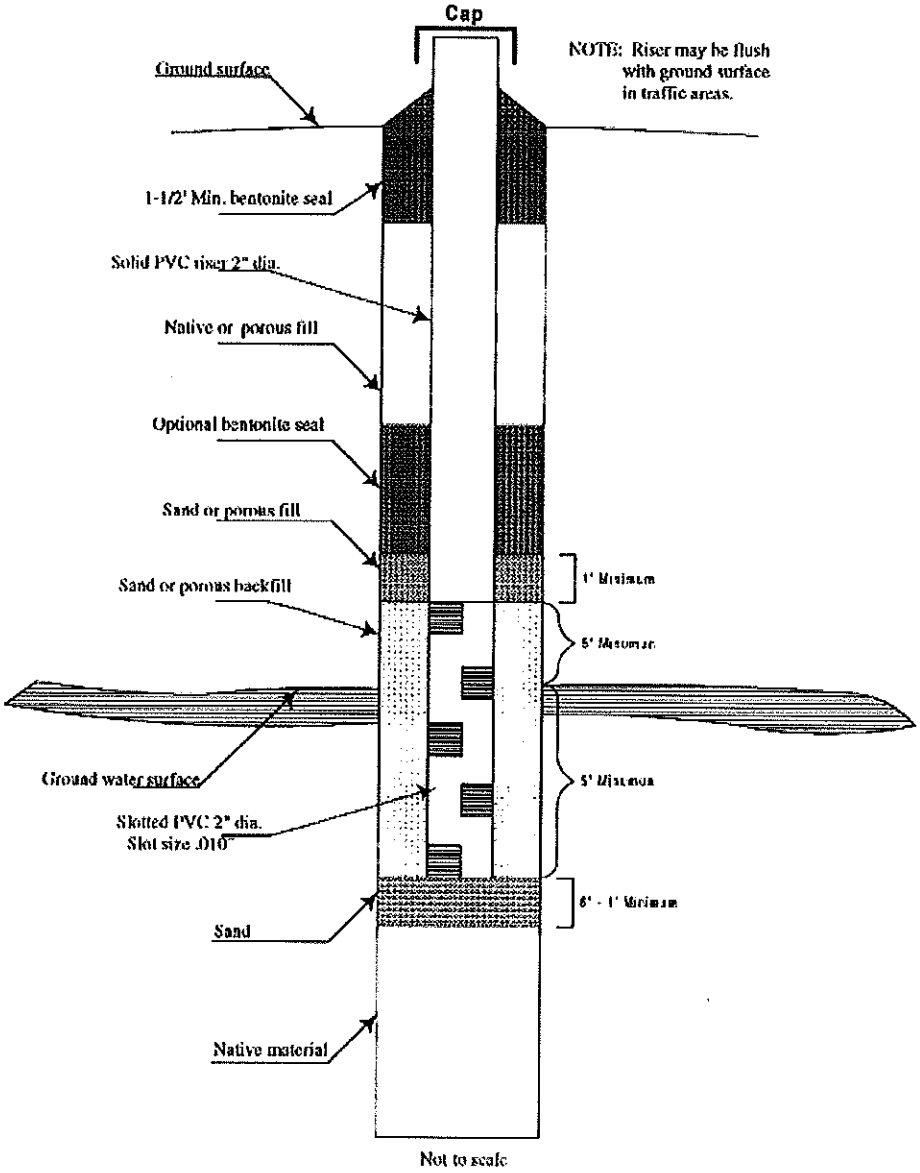
13. Monitoring wells located in traffic areas must be cut off at ground level, clearly marked, and fitted with a limited access cover in accordance with PEI Publication RP 100-2011or properly protected from vehicles.

14. Any damaged monitoring well must be repaired or replaced as soon as possible after discovery of the damage, but at least within 45 days.

FOR INSTALLATION IN A TANK EXCAVATION

FIGURE I

VERTICAL MONITORING WELL



Appendix G: Specifications and Requirements for Monitoring Wells with Impervious Barriers

1. Monitoring wells must be constructed in conjunction with an impermeable membrane, impervious structure or other approved device that is resistant to hydrocarbons, sloped to a sump such that all leaks or discharges will be detected in a product monitoring device (see Figure 2).

2. The impermeable barrier must slope to a 24 inch deep sump, at a slope of 1/4 inch per foot.

3. The impermeable barrier must extend 18 inches beyond each side of the tank(s).

4. The impermeable barrier must run under the entire length of the tank being monitored.

5. The barrier must be placed under the bedding material and shall not be in direct contact with the tank.

6. Monitoring wells must be constructed in accordance with the specifications and requirements of Appendix F, except that the well must be placed in the sump as illustrated in Figure 2.

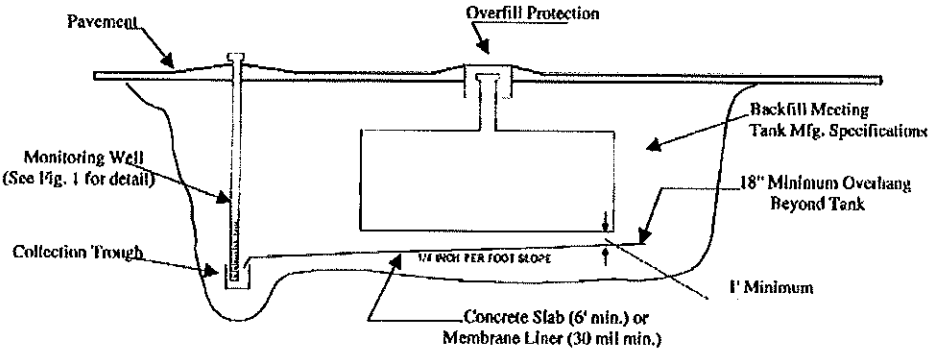
7. Any damaged or non-functioning monitoring well must be repaired or replaced as soon as possible after discovery of the damage, but at least within 45 days.

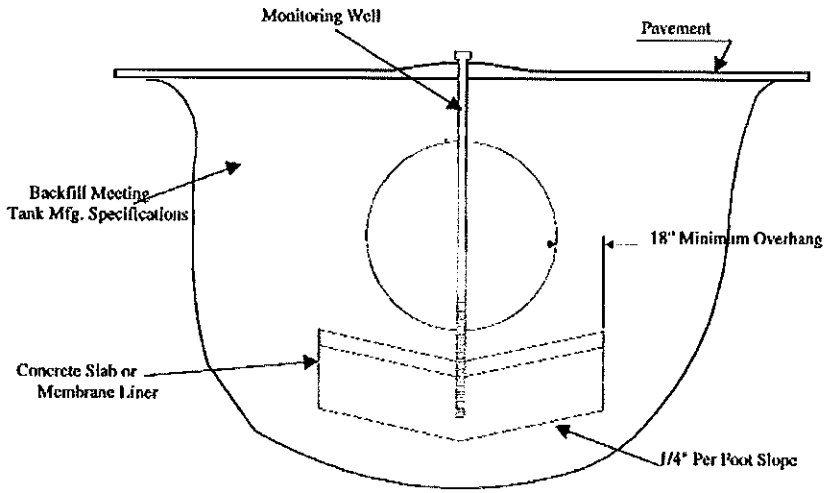
8. In locations where the seasonal high ground water table elevation is above that of the barrier, the combination of an impervious barrier and monitoring well does not qualify as leak detection under section 5(B) of this rule.

FIGURE 2.

MONITORING WELL AND IMPERMEABLE LINER

FIG. 2 MONITORING WELL AND IMPERMEABLE LINER





NOTES:

- DRAWINGS NOT TO SCALE
- FOR USE WHERE WATER TABLE IS AT LEAST 15' BELOW GRADE AND FOR INSTALLATIONS OVER BEDROCK
- OTHER CONFIGURATIONS MEETING APPENDIX G PERFORMANCE STANDARDS MAY BE ACCEPTABLE

Appendix H: Procedures for Weekly Monitoring, Handling, and Obtaining Samples for Laboratory Analysis

These procedures are specifically for manual sampling of ground water monitoring wells used as leak detection to meet the requirements of section 5(D)(14) of this rule.

NOTE: Due to the extreme sensitivity of laboratory analytical equipment, it is very important that all bailers, pumps and sample vials be kept clean. A contaminated pump or bailer may cross-contaminate monitoring wells or falsely indicate the presence of hydrocarbons in the ground water. It is also important that the person taking the sample have clean hands free of any grease, oil or gas.

For Weekly Monitoring, Perform Steps 1 through 7.

1. All equipment used shall be washed with a detergent soap and triple rinsed with water which is known to be uncontaminated to ensure the device is clean. The individual(s) performing the sampling shall wash their hands thoroughly prior to sampling.

2. Measure and record the distance from the top of the casing to the water surface.

3. Measure and record the distance from the top of the casing to the bottom of the well.

4. After checking for free product using a clear bailer and when the volume of water in the well is sufficient remove several bailer volumes of water.

5. Lower the bailer into the well and remove a sample. Pour the contents of the bailer into a clear container.

6. Inspect the sample for free product or an oily sheen. Smell the sample for olfactory evidence of oil.

7. Record the results in a logbook which, shall be kept at the facility. A sample log sheet is attached in Figure 3.

NOTE: Commercially available pastes, which change color upon contact with hydrocarbons can be spread on a weighted, plastic tape measure or measuring stick and lowered the depth of the well. Pastes are also available which will change color upon contact with water. The use of these pastes are an acceptable method of determining water levels and detecting product in monitoring wells for the purpose of complying with weekly monitoring requirements. The use of an oil/water interface probe is also acceptable.

8. Prior to obtaining samples for laboratory analysis, remove 3 well volumes of water from each well. The water may be removed by bailing or pumping the well. For 2-inch wells, remove about 2.5 gallons of water for every 5 feet of well water.

9. After a sufficient volume of water has entered the well, take a sample for analysis.

10. Samples shall be poured into vials designed for sampling volatile organics. Standard sampling vials are glass, 30-50 milliliters in volume with a Teflon cap. Obtain the sample vials from the lab where the analysis will be performed. Care shall be taken, such that no air bubbles are in the sample vial.

Record the sample vial number and the monitoring well number, such that the laboratory analysis may be correlated to a specific well location.

11. Samples shall be securely packed and shipped the same day or in accordance with the protocols for the analysis being conducted. Samples shall be kept cool and not exposed to heat. A record shall be kept of all dates and shipping arrangements. Samples must be analyzed in accordance with the requirements of Appendix S of this rule.

12. For monitoring wells, which are installed with the impervious barrier, which contains less then two (2) feet of water, do not attempt to remove three well volumes of water. It may be necessary to sample the well during or after periods of rain whenever possible.

13. For monitoring wells, which do not have enough water to obtain a sample, measure the depth of the well to insure the well is not filled in or has not collapsed. Using a gauge stick or hard plastic tape, apply paste which will turn color upon contact with hydrocarbons. Record the results of both measurements for each well in the logbook.

FIGURE 3

SAMPLE WEEKLY MONITORING WELL LOG SHEET

Monitoring Well No.	1	2	3	4	5	6	7	8
1. Date of Sampling								
2. Time of Sampling								
3. Distance from Casing to Ground Water								
4. Distance from Casing to Bottom of Well								
5. Method for Determining Water Levels								
6. Instrument Cleaned (Washed and Triple Rinsed)								
7. Instrument Used (Bailer, Pump, etc.)								
8. Results of Sight and Smell Test								

9. Initials of Person Performing the Sampling								

10. Comments

Appendix I: Sample Daily Inventory Reporting Log

KEEP THIS COMPLETED FORM FOR 3 YEARS

MONTHLY FUEL REPORT/DAILY INVENTORY

Month/Year _____

Facility & Location: _____ Registration Number: _____

Tank Size and Fuel Type: _____ Certified By: _____

Date	Opening Inventory (Book Inventory of Previous Day)	Gallons Pumped	Gallons Delivered	Book Inventory Balance	Closing Stick Inventory	Cumulative Over or <Short>	Inches Water	Initials
Math Check		-	+	=				

Leak Check: Sum of Gallons Pumped (_____) x .01 = _____

IF SUM OF "CUMULATIVE OVER OR SHORT" IS GREATER THAN LEAK CHECK RESULT IT IS CONSIDERED EVIDENCE OF A POSSIBLE LEAK AND YOU MUST NOTIFY DEP AT (207) 287-2651.

Log Sheet #1

Appendix J: Requirements for Abandonment of Underground Oil Storage Tanks by Removal

1. The top of the tank must be exposed.

2. All piping must be drained and flushed into the tank or other suitable container such that no waste water or product is released to the environment (1 or 2 gallons of water should be sufficient to flush piping).

3. All liquid that can be pumped out must be removed, and any liquids that cannot be used for their originally intended purpose must be disposed of in accordance with the Ddepartment's Waste Oil Management Rules, Chapter 860. UL listed explosion proof equipment must be used to remove Class I liquids. Hoses to remove product must be inserted to the low end of the tank, which may still contain product. Flammable vapors from vacuum trucks removing oil from a tank or facility must be vented at least 12 feet above the ground surface.

4. The fill (drop) tube must be removed. Fill, gauge, and product lines must be disconnected. The open ends of all lines must be capped or plugged. All tank openings that will not be used in the inerting procedure also must be plugged. Only the vent line will remain connected and open until the inerting procedure is complete. The vent line must be at least 12 feet above the ground surface.

NOTE: Due to the potential of waste oil tank explosions, the Ddepartment strongly recommends treating all waste oil tanks as a Class I liquid tank except where testing shows the internal atmosphere not to be explosive.

5. All tanks that contained Class I liquids must be inerted prior to removing the tank from the ground using one of the following methods:

   (a) The tank can be inerted with dry ice in the amount of 1.5 pounds per 100 gallons of tank capacity. Dry ice shall be crushed and distributed evenly over the greatest possible area. During the inerting process, all necessary precautions to prevent ignition in the entire area shall be taken.

   (b) The tank can be inerted using nitrogen or another inert gas approved by the commissioner, introduced at low pressure at the bottom of the tank. Inerting is considered complete when oxygen levels in the tank are measured at less than 6 percent.

   (c) The tank can be rendered vapor free by air purging in accordance with API 1604. Air purging is considered complete when an explosimeter indicates an atmosphere inside the tank of less than 10 percent of the LEL while an oxygen meter indicates greater than 14 percent oxygen. Air purging using air-moving equipment found on a vacuum truck is not allowed.

   (d) The tank can be removed if the tank atmosphere is found to be oxygen deficient as defined by an oxygen reading of less than 6 percent.

   During any of the above inerting, purging or removal procedures, all necessary precautions to prevent ignition in the area must be taken, including but not limited to: grounding and bonding of equipment; use of explosion proof or intrinsically safe equipment; ambient air monitoring of the surrounding area; and pedestrian and traffic control. All weather and ambient atmospheric conditions must be evaluated prior to inerting or purging, including but not limited to air exchange, wind direction and humidity. All air monitoring instruments must be calibrated according to the manufacturer's specifications. Measurements with air monitoring instruments must be taken at the following points: one foot from the bottom of the tank; at its lowest end; the middle of the tank's diameter; and at the tank opening.

NOTE: All contaminated soil must be removed or otherwise cleaned up to the satisfaction of the commissioner.

6. All holes, including corrosion holes, must be plugged or capped before the tank is moved from the site, except that one 1/8 inch vent hole must be left to prevent the tank from being subjected to an excessive pressure differential caused by extreme temperature changes.

7. If transported, the tanks must be scraped to remove all loose backfill material adhering to the tank.

8. All tanks removed from the ground, regardless of condition, must be labeled with the following information: Tank Has Contained Leaded Gasoline (or Flammable Liquid) NOT GAS FREE.

NOTE: U. S. Department of Transportation regulations (49 CFR Section 172.500 *et seq.*) also require tanks which have not been purged but are being transported to be labeled on the ends and sides with a "Flammable" placard with the appropriate UN Number (1203 or 1993) attached.

9. If transported, the tank must be secured on a truck such that the 1/8 inch vent hole is located on the uppermost point on the tank.

10. All piping must be removed from the ground whenever practicable. Piping that cannot be removed must be blown clear of residual product with an inert gas and securely plugged at all ends. All necessary precautions to prevent spillage or ignition in the entire area must be taken.

11. Some tank disposal facilities require that tanks be cleaned of sludge and residues prior to accepting the tank. Any cleaning and temporary storage operations must be performed at a site acceptable to local public safety officials and not on a sensitive geologic area, as defined in section 3 of this rule. Any cleaning operation involving flammable materials or generating flammable vapors must be performed at a remote site where public access can be restricted by fencing or other suitable means 24 hours/day. Tank cleaning may be performed at the site where the tank is removed only with the permission of the local public safety official.

NOTE: If cleaning a tank at the site of its removal, it is recommended that the tank be cleaned while still in its excavation hole, the safest location in the event of an explosion or fire.

12. The only acceptable means of disposal of underground oil storage tanks are: (a) sale to a properly approved junk or scrap dealer; (b) disposal at a tank processing facility meeting the criteria of Appendix L of these rules and approved by the Ddepartment; (c) use as culverts provided that (i) tanks are steam cleaned prior to use and any resides are properly cleaned and disposed of and (ii) such use will not violate any other laws, regulations, or permits promulgated under federal, state, or local jurisdiction; or (d) other techniques for disposal of tanks, provided the expressed written approval of the Ddepartment and the State Fire Marshal's office has been obtained.

13. Tanks must be stored with all bung holes open and positioned at a 45 degree angle down from horizontal to prevent rain from entering the tank and to allow vapors to escape.

Appendix K: Requirements for Abandonment of Underground Oil Storage Facilities by Filling in Place

1. Piping must be drained and flushed into the tank.

2. All liquid that can be pumped out, including that liquid requiring a hand pump to remove, must be removed and any liquids that cannot be used for their originally intended purpose must be disposed of in accordance with the Ddepartment's Waste Oil Management Rules, Chapter 860. UL approved explosion proof equipment must be used to remove Class I tanks that may still contain product. Flammable vapors from a vacuum truck removing oil from a tank or facility must be vented at least 12 feet above the ground surface, effective September 28, 1991. All sludge will also be removed, handled, stored and disposed of in accordance with Chapter 851 of the Ddepartment's hazardous waste rules. Where it can be demonstrated to department satisfaction that a sludge is not a hazardous waste, it may be disposed at a solid waste disposal facility licensed for such wastes.

3. The top of the tank must be exposed.

4. The fill (drop) tube must be removed. Fill, gauge, and product lines must be disconnected. Open ends of all lines, except the vent line, must be capped or plugged.

NOTE: Due to the potential of waste oil tank explosions, the Ddepartment strongly recommends treating all waste oil tanks as a Class I liquid tank except where testing shows the internal atmosphere not to be explosive.

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5. All tanks that contained Class I liquids must be rendered inert by using one of the following methods:

   (a) The tank can be inerted with dry ice in the amount of 1.5 pounds per 100 gallons of tank capacity. Dry ice shall be crushed and distributed evenly over the greatest possible area. During the inerting process, all necessary precautions to prevent ignition in the entire area must be taken.

   (b) The tank can be inerted using nitrogen or another inert gas approved by the commissioner, introduced at low pressure at the bottom of the tank. Inerting is considered complete when oxygen levels in the tank are measured at less than 6 percent.

   (c) The tank can be rendered vapor free by air purging in accordance with API 1604. Air purging is considered complete when an explosimeter indicates an atmosphere inside the tank of less than 10 percent of the LEL while an oxygen meter indicates greater than 14 percent oxygen. Air purging using air-moving equipment found on a vacuum truck is not allowed.

   NOTE: An explosimeter by itself is not considered a product vapor instrument. If you are uncertain of an instrument's capability for testing above the Upper Explosive Limit (UEL), contact the manufacturer.

   (d) The tank can be considered inert if the tank atmosphere is found to be oxygen deficient as defined by an oxygen reading of less than 6 percent.

During any of the above inerting, purging or removal procedures, all necessary precautions to prevent ignition in the entire area shall be taken, including but not limited to: grounding and bonding of equipment; the use of explosion proof or intrinsically safe equipment; ambient air monitoring of the

surrounding area; and pedestrian and traffic control. All weather and ambient atmospheric conditions must be evaluated prior to inerting or purging, including, but not limited to, air exchange, wind direction, and high humidity. All air monitoring instruments must be calibrated according to the manufacturer's specifications. Measurements with air monitoring instruments must be taken at the following points: one foot from the bottom of the tank; at its lowest end; the middle of the tank's diameter; and at the tank opening.

6. Vapors from the tank must be vented at least 12 feet above the ground surface.

7. A suitable, solid, inert material must be introduced through the hole in the top of the tank. The following materials are suitable for this purpose:

   (a) Sand. Sand that is free of rocks is suitable for filling. It may be poured dry as long as it flows freely. When the tank is nearly full, sand should be washed into the tank with a nominal amount of water and puddled to cause the sand to flow to the tank ends. The use of large amounts of water must be avoided.

   (b) Sand and Earth Fill. The tank can be (1) filled with sand to about 80 percent of the calculated capacity, and (2) filled to overflowing for the remaining capacity using a mixture of soil and water in a free-flowing mud.

   (c) Cement or mortar.

Appendix L: Requirements for Underground Oil Storage Tank Processing Facilities

1. Applicability

   A. The requirements of this Appendix apply to underground oil storage tank processing facilities where tanks used for the storage of oil and abandoned by removal are cleaned, temporarily stored and processed prior to recycling or re-use of their materials.

   B. For the purpose of this appendix, the cleaning operation of a tank processing facility includes those areas and activities where vapors, liquids, solids, sludge, rust, scale and other residues are removed and cleaned from an abandoned underground oil storage tank, including buffers, structures, roads and equipment.

   C. For the purpose of this Appendix, the processing operation of a tank processing facility includes those areas and activities where cleaned tanks are cut, crushed, reduced in volume or otherwise modified prior to sale or re-use of their materials.

2. Siting. Underground oil storage tank processing facilities may not be located:

   A. On a coastal sand dune, as defined in 38 ~~M.R.S.A.~~M.R.S. § 480-B(1);

   B. On a coastal wetland as defined in 38 ~~M.R.S.A.~~M.R.S. § 480-B(2);

   C. On a freshwater wetland, as defined in 38 ~~M.R.S.A.~~M.R.S. § 480-B(4);

   D. On a flood plain, as defined in Chapter 400 of the D~~d~~epartment's rules;

   NOTE: In most areas of Maine, the flood plains have been mapped by the Federal Emergency Management Agency (FEMA). Maps are available at most municipal offices.

   E. Within a public water system's source water protection area as mapped by the Maine Bureau of Health, or a sensitive geological area as defined in section 3(QQ) of this rule;

   F. Within 300 feet of a classified body of surface water as defined in Chapter 400 of the D~~d~~epartment's rules; or

   G. Within 100 feet of an adjacent property boundary.

   NOTE: If the area of a facility, including all operations, temporary storage areas, structures, roads and buffers, exceeds 3 acres, the owner also must obtain approval under the Site Location of Development Law, 38 ~~M.R.S.A.~~M.R.S. §§ 481 *et seq.*, and the Maine Waste Management Law, 38 ~~M.R.S.A.~~M.R.S. §§ 1302 *et seq.*

3. Design

   A. The entire facility must be surrounded by a fence or otherwise secured to the commissioner's satisfaction to prevent unauthorized access to the tanks. Signs stating "Caution - Flammable Materials", "No Smoking" and "No Entry of Unauthorized Personnel" must be placed along the fence at intervals no greater than 50 feet.

   B. A 25-foot fire protection buffer must be cleared of combustible materials on all sides of the facility. This buffer must be maintained at all times free of all structures, equipment, cleaned tanks and other facility activities. Overhanging branches and vegetation must be cut back to distances safe from fire and explosion. The fire buffer may lie outside the fenced portion of the facility.

NOTE: Graveling the area and removing the vegetation are examples of means that would normally achieve this purpose.

C. The facility must be equipped with fire protection equipment of the size, quantity, type and location directed by local fire officials or by the commissioner. Equipment must be kept operable at all times.

D. The facility must be equipped with a means of communication (such as a telephone or two-way radio) with fire and medical emergency personnel.

E. A contingency plan meeting the requirements of 40 CFR 264.52 must be developed to provide for prompt response to fire and explosion hazards, and for containment and removal of any spilled material. A copy of the contingency plan must be sent to the commissioner and to local public safety officials. A copy must be kept at the facility at all times.

F. Cleaning Operations Design

(1) Any area underlying a cleaning operation must be surrounded by a berm of sufficient height to contain all residues, cleaners and precipitation that may be contaminated by these substances. This area and berm must be underlain by a clay or synthetic liner, which in turn must be completely covered by a firm, continuous working surface (such as concrete) that is compatible with hydrocarbons. The area must be equipped with a collection system which contains for removal of all solid and liquid tank residues, cleaners, and all precipitation that may be contaminated by these substances.

(2) A clay liner must be at least two feet thick and must have a permeability no greater than 10-7 cm/sec. A synthetic liner must be at least 40 mils thick and must be of a material compatible with all residual tank contents and cleaners. It must be installed in accordance with the manufacturer's specifications. An independent professional engineer or authorized liner manufacturer's representative shall observe the entire installation and testing, and shall certify to the Ddepartment that the installation, testing and repairs occurred in accordance with the manufacturer's specifications. Either a clay or synthetic liner must extend at least 10 feet in all directions beyond all tanks requiring containment, and must be anchored to the berm in a secure fashion.

(3) The collection sump, tanks, and all equipment must be of adequate size to contain the volumes of tank residues, cleaners, and any contaminated precipitation that will be generated. They must be constructed of materials compatible with the wastes generated.

(4) A tank is deemed clean when:

(a) all loose scale has been removed from the inside of tank walls;

(b) all solid and liquid residues have been removed from tanks walls; and

(c) the tank has been ventilated by air, steam, or some other means so that its atmosphere does not exceed 10% of the Lower Explosive Limit (LEL).

G. Processing Operations Design

(1) Processing operations areas must be physically isolated from the cleaning operations area such that no flammable or explosive hazards exist in the processing areas due to cleaning operations.

(2) Processing operations areas need not be lined, but must be maintained in a manner so that processing debris (e.g. cuttings, etc.) can be collected and removed.

H. Temporary Storage Area Design

(1) Tanks at a processing facility may be temporarily stored on site for less than 12 months, provided the following conditions are met:

(a) All tanks must be stored in a "chocked" condition to prevent rolling, and must have the top openings (manufactured openings or bungs) open and located at a 45 degree angle from the ground to prevent rainfall from entering and to facilitate venting. Any corrosion or non-manufactured holes must be plugged.

(b) A 3-foot separation must be maintained between all tanks to allow weekly inspection for leakage and cleanup of spills. Any tanks found to be leaking must be immediately cleaned in accordance with this chapter.

(c) Any discharge of oil to soil or groundwater in any unlined portion of the facility must be immediately reported and removed to department satisfaction.

(2) Under no circumstances must a tank be stored or remain at a facility for a period exceeding 1 year from the date of the tanks arrival at the facility.

4. Operation

A. All tanks arriving at a processing facility must be brought immediately into a secured area and inspected. The inspector shall note tank condition (severe corrosion, splits, number and size of holes) and evidence of leaks such as product on outside tank surfaces, or adhering contaminated soil. This information must be recorded in a facility log book.

B. Following inspection, all tanks must be marked conspicuously and permanently with a serial number assigned by the facility, date of receipt and product last stored, if known.

C. Any tanks containing liquids must be pumped dry immediately following inspection. Any pumping or removal of liquids must be conducted in a lined portion of the facility. Any liquid-free tanks may then be brought to a temporary storage area provided they are stored in accordance with Appendix L section 11(H) of this chapter.

D. Solid and liquid residues from tank cleaning or processing will be disposed of in compliance with appropriate federal, state and local laws, regulations and ordinances. All residues are presumed to be hazardous waste, requiring disposal under the provisions of the Ddepartment's Hazardous Waste Management Rules, Chapters 850-857, unless testing or other information establishes, in accordance with Chapter 850, that they are not.

NOTE: Sludge and solid wastes found to be non-hazardous are special wastes subject to the requirements of Chapter 405 of the Ddepartment's rules. Liquid petroleum wastes found to be nonhazardous are waste oils subject to the requirements of Chapter 860 of Ddepartment's rules.

E. After tank identification, cleaned tanks must be brought to the processing operation area unless stored in accordance with paragraph C above. Tanks not cleaned upon arrival must be taken to a cleaning operations area, unless stored in accordance with paragraph C above.

F. The facility must maintain a log book at the facility at all times. It must be kept current and made available to department inspectors upon request. The log book must contain the following information for each tank:

(1) facility-assigned serial number;

(2) location from which tank was removed;

(3) tank size;

(4) contents when last in use;

(5) tank condition upon arrival (e.g. sound, badly corroded, number of holes);

(6) date cleaned;

(7) date processed; and

(8) final disposition (sold whole, cut up, crushed).

In addition the log book must include information on types and volumes of all residues generated, how they were disposed of, and when. All records must be kept for at least three years.

G. Groundwater monitoring must be conducted at the facility. A ground water monitoring plan, developed and certified by a Maine certified geologist, must be submitted to the commissioner with the facility application. The plan must provide for a minimum of one upgradient and three down-gradient wells, located and screened to detect releases of hydrocarbons as early as practicable.

Appendix M: Cathodic Protection Tester Certification Requirements

1. The requirements of this Appendix apply only to individuals not certified by the Maine Board of Underground Tank Installers for underground oil facility installation. Maine certified installers are considered to automatically meet the definition of a cathodic protection tester as long as their installer certification remains valid.

2. An underground storage tank inspector is approved by the commissioner as a cathodic protection tester when certified by the Maine Board of Underground Storage Tank Installers in accordance with 32 ~~M.R.S.A.~~M.R.S. section 10010(6)(C).

Appendix N: Corrosion Expert Certification Requirements

1. The commissioner may certify a person as a corrosion expert on finding that the person has a thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by professional education and related practical experience and is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Only individuals may be certified.

2. Criteria for certification by the commissioner

   A. Documentation of valid certification by the National Association of Corrosion Engineers (NACE) as a qualified corrosion expert; or

   B. Registration as a professional engineer in Maine, and certification or licensing, by a professional organization or educational institution other than NACE, based on adequate education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

3. Application procedures

   A. On an application form provided by the commissioner, applicants must provide the following information and certify its accuracy.

      (i) Applicant's name, business mailing address, and telephone number;

      (ii) Documentation of NACE or other professional or educational institution's certification;

      (iii) Documentation of Maine registration as a professional engineer, if needed;

      (iv) Description of relevant work experience, college courses (including transcript) and other technical training courses; and

      (v) Three written professional references.

   B. Upon the review and approval of an application as meeting all the certification criteria of this rule and 38 ~~M.R.S.A.~~M.R.S. § 567-A(2), the commissioner shall issue a certificate valid for 12 months.

   C. Requests for recertification must be made to the commissioner in writing 30 days prior to expiration of the existing certificate. The commissioner may deny a request for recertification request on any one of the following grounds: a documented improper installation of corrosion protection not in accordance with the requirements of this rule; the expiration or loss of NACE or other professional certification; or loss of a valid professional license as a registered Maine professional engineer. An individual who has lost his or her certification may reapply after 12 months for recertification consistent with requirements of paragraph 2 above.

   D. The commissioner may undertake enforcement actions corrosion experts for violations of this rule, in accordance with the provisions of 38 ~~M.R.S.A.~~M.R.S. § 347-A.

Appendix O: Design and Installation Standards for Secondary Containment Using an Excavation Liner

1. Tank and piping excavation liners must be constructed of synthetic materials, compatible with the product to be stored and sufficiently thick and impermeable to direct a leak or discharge to a monitoring point and permit its detection. Soil, clay, bentonite-sealed soil and asphalt liners are prohibited.

2. Liners must have a permeability of 10^{-6} cm/sec or less for the product to be stored. Concrete excavation liners must be sealed or coated on the inner wall with an oil compatible sealant or coating compound.

3. Synthetic liners must be at least 0.03 inches thick and installed in accordance with manufacturer specifications. All liner panels must be factory seamed or field seamed by an authorized representative of the manufacturer.

4. For cathodically protected tanks and piping, the liner must be installed so that it does not interfere with the proper operation of the cathodic protection system. Sacrificial anodes must be located within the excavation liner.

5. Ground water, soil moisture, or rainfall must not render the interstitial leak detection or sampling method inoperative so that a release could go undetected for more than 30 days.

6. The site must be assessed to ensure that the secondary liner is always above the ground water and not in a 25 year flood plain, unless the liner and leak detection system are designed for use under such conditions.

7. Monitoring wells to be used for leak detection in tank excavation liners must be designed and installed in accordance with Appendix F of this rule.

8. For tanks with an internally fitted liner, continuous, automated leak detection between the liner and the inner wall must be provided.

9. Excavation liners for piping must drain to a monitoring sump or to the interstitial space monitoring system for the tank.

Appendix P: Requirements for a Site Assessment at Facility Closure or Tank Abandonment

1. The purpose of a site assessment at the time of facility closure or abandonment is to determine if discharges of oil have occurred requiring notification of the commissioner and corrective action by the owner, operator or another responsible party.

2. General requirements

   A. A site assessment meeting all the requirements of this Appendix must be completed prior to the completion of facility closure or the abandonment of any portion of a facility in accordance with section 11 of this chapter. This includes abandonment of only piping.

   B. Site assessor qualifications. If a tank or facility is located within a sensitive geologic area, as defined by this chapter, the site assessment must be supervised by, and the site assessment report must be certified by, a Maine certified geologist, registered professional engineer, or other persons meeting the requirements of Maine's professional regulation statutes and regulations for geologists or professional engineers practicing in Maine. As provided under 38 ~~M.R.S.A.~~M.R.S. § 563-B(1), closure site assessment for facilities not located in a sensitive geologic area are exempt from the above qualification standards for the person conducting the assessment.

   C. The findings of all site assessments conducted pursuant to this rule must be presented in a written report with supporting data, addressing the requirements of this Appendix.

   D. One copy of all site assessment reports conducted pursuant to this rule must be submitted to the commissioner in an envelope endorsed "UST Site Assessment", by the facility owner at the following address within 45 days of tank and piping removal or abandonment in place: UST Program Administrator, MDEP-BRWM, 17 SHS, Augusta ME 04333-0017.

      If a site assessment finds evidence of a discharge or contamination, two additional copies of the site assessment report must be submitted at the same time, one to the commissioner at the above address and one to the chief municipal official of the municipality within which the facility is located or to the county commissioners if located in an unorganized township.

      Site assessment reports may also be submitted to the commissioner electronically, in which case no more than one (1) copy need be submitted. Where applicable, a report must still be provided to the chief municipal officer or county commissioners as required above.

NOTE: Upon receipt of a site assessment report, the commissioner will review and determine if further investigation or remediation is needed in addition to any completed at the time of the facility abandonment in accordance with section 12 of this chapter.

   E. Site assessment reports must include the following information and follow the general format below:

      (1) Summary cover sheet provided by the commissioner and including owner, operator and facility name, municipality in which the facility is located, Maine facility and tank registration numbers, date of site assessment, whether facility is in a sensitive geological area, and whether evidence of a discharge or contamination above a reporting level was found;

(2) Purpose of site assessment;

(3) Facility and site location;

(4) Facility and site history, where applicable;

(5) Potential receptors, where applicable;

(6) Description of the site assessment methods utilized, including field instrument methods, laboratory methods and quality assurance/quality control (QA/QC) procedures followed;

(7) Findings of the site assessment, including field and laboratory analytical results for all soil and water samples collected; and

(8) Recommendations and conclusions.

F. The commissioner may require ground water sample location and quality data to be submitted in an electronic form compatible with the Maine Environmental and Geographic Analysis Database. The format for such data will be provided by the commissioner.

G. Exception for the removal of flexible primary piping. The site assessment requirements in paragraphs 2(B) through 2(E) do not apply to the removal of the flexible primary piping of double-walled piping when conducted in accordance with section 5(B)(6-A) of this rule and the following requirements.

(1) Prior notification by the facility owner or operator of the piping abandonment to the commissioner and the municipality is provided in accordance with Section 11(E) of this rule.

(2) Upon removal, the entire length of primary piping is visually inspected by a Maine certified tank installer and the physical condition and the integrity of the piping is documented, including any evidence of a discharge or leak.

(3) The certified tank installer submits to the commissioner and the facility owner or operator the findings of the visual inspection on a reporting form provided by the commissioner within 30 days of the piping abandonment and removal.

(4) Any oil discharge is reported to the commissioner within 2 hours of discovery.

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3. The following facility and site location information must be included in all site assessments:

A. Mailing and street address of facility;

B. Tax map and lot number;

C. If registered as located in a sensitive geologic area as defined by this chapter; and

D. Universal Transverse Mercator (UTM), longitude/latitude decimal coordinates, or Google Earth satellite photograph or comparable map showing the precise location of the facility.

4. The following information regarding potential receptors must be provided where contamination or evidence of a discharge of oil has been found:

A. A description of surrounding land uses and the extent of public drinking water service to all abutters and the surrounding area A facility layout plan showing locations of property boundaries, tanks, product and vent lines, dispensers, subsurface waste water disposal systems, dry wells, floor drains, sewer lines and underground utilities;

B. Type of oil products discharged; and

C. Recommendations regarding the need for further investigation of the extent of contamination and the objectives of the remediation of the oil discharge, including the following:

(1) Free product and oil saturated soils;

(2) Protection and remediation of ground water, private public drinking water supplies, public drinking water supplies and their source water protection areas mapped by the Maine Drinking Water Program, and significant sand and gravel aquifers mapped by the Maine Geological Survey, ;

(3) Petroleum vapor intrusion or indoor air quality;

(4) Direct human contact to contaminated soils; and

(5) Surface water bodies.

5. If evidence of a discharge of oil is found, the site assessment must also include the following facility and site history information:

A. Product storage and distribution system history, including:

(1) Location of tanks or piping previously abandoned in place;

(2) Type oil products most recently stored;

B. A list of all known prior oil and hazardous substance discharges and their commissioner assigned spill number; and

C. Summary of the findings of previous available site assessments and contamination investigations.

6. Site assessment requirements for the removal of heavy oil storage facilities.

A. Tanks, piping and other underground facility components must be inspected visually upon removal for presence of holes, loose fittings and joints, cracks, fractures and evidence of oil stains. If any of the conditions above are found the facility owner or operator shall notify the commissioner of the occurrence of a discharge within 2 hours of discovery.

B. The tank and piping excavation must be inspected visually for any evidence of a discharge of oil; including oil stained or saturated soil, strong petroleum vapors emitted from soil or free product or an oil sheen on groundwater in the excavation. The presence of any of the above conditions is considered an indication of a discharge of oil and must be reported to the commissioner within 2

hours of discovery by the facility owner or operator and before the excavation hole is filled. The owner shall immediately proceed with an investigation and corrective action measures in accordance with section 12 of this chapter.

C. The entire facility must be inspected visually for surface spills and discharges. Such spills and discharges must be reported to the commissioner in accordance with section 12(A).

D. Upon visual discovery of evidence of a leak or discharge of oil at a heavy oil facility and reporting such to the commissioner, the site assessment investigation at the time of closure may be terminated, except where a tank or piping was located on or in bedrock in which case the presence of contaminated ground water must be investigated in accordance with paragraph 7(F).

7. Site assessment requirements for motor fuel and marketing and distribution facilities when tanks or piping are removed and immediately replaced, or when an operating facility will remain.

A. Applicability. The requirements of this paragraph apply when an underground oil storage facility or a portion thereof, is removed and then replaced with a new underground oil storage facility on the same land parcel, utilizing all or part of the same tank excavation hole. The requirements below also apply to situations when only a portion of a facility is removed and other parts of the facility remain in operation.

B. Tanks, piping and other underground facility components must be inspected visually upon removal for presence of holes, loose fittings and joints, cracks, fractures and evidence of oil stains. If any of the conditions above are found the facility owner or operator shall notify the commissioner of the occurrence of a discharge within 2 hours of discovery.

C. The tank and piping excavation must be inspected visually for any evidence of a discharge of oil; including oil stained or saturated soil, strong petroleum vapors emitted from soil or free product or an oil sheen on groundwater in the excavation. The presence of any of the above conditions is considered an indication of a discharge of oil and must be reported to the commissioner within 2 hours of discovery by the facility owner or operator and before the excavation hole is filled. The owner shall immediately proceed with an investigation and corrective action measures in accordance with section 12 of this chapter.

NOTE: OSHA regulations governing entering excavations and confined spaces should be strictly followed. Excavations should not be entered if above 20% of Lower Explosive Limit (LEL), or less than 19.2% or greater than 25% oxygen.

D. The entire facility must be inspected visually for surface spills and discharges. Such spills and discharges must be reported to the commissioner in accordance with section 12(A) of this rule.

E. Oil contaminated soil assessment. Soil in the tank and piping excavation holes and under removed dispensers, as well as areas of identifiable surface spills, are to be evaluated for oil contamination by one of the methods below:

(1) In accordance with the soil field analytical methods and notification protocols described in paragraph 2 of Appendix Q of this rule;

(2) Other commissioner approved field methods and corresponding notification levels of comparable demonstrated accuracy and precision to those in Appendix Q;

(3) Soil sample collection, laboratory analytical and notification procedures described in paragraph 3 of Appendix Q; and

(4) Soil samples collected in accordance with a commissioner approved soil sampling plan, analyzed by a laboratory method meeting the requirements of Appendix S, and corresponding commissioner approved notification levels.

8. Site assessment requirements for waste oil facilities, and motor fuel and marketing and distribution facilities when a facility is removed but not immediately replaced.

A. Applicability. The following requirements apply to all waste oil facilities. They also apply to motor fuel and marketing and distribution facilities when an underground oil storage facility is fully closed and removed without a replacement facility being immediately installed.

B. Tanks, piping and other underground facility components must be inspected visually upon removal for presence of holes, loose fittings and joints, cracks, fractures and evidence of oil stains. If any of the conditions above are found the facility owner or operator shall notify the commissioner of the occurrence of a discharge within 2 hours of discovery.

C. The tank and piping excavation must be inspected visually for any evidence of a discharge of oil; including oil stained or saturated soil, strong petroleum vapors emitted from soil or free product or an oil sheen on groundwater in the excavation. The presence of any of the above conditions is considered an indication of a discharge of oil and must be reported to the commissioner within 2 hours of discovery by the facility owner or operator and before the excavation hole is filled. The owner shall immediately proceed with an investigation and corrective action measures in accordance with section 12 of this chapter.

D. The entire facility must be inspected visually for surface spills and discharges. Such spills and discharges must be reported to the commissioner in accordance with section 12(A) of this rule.

E. The facility and the surrounding area are to be evaluated prior to the facility removal to identify potential receptors and exposure pathways to facilitate remediation decisions in the event a discharge is discovered. At a minimum these should include public drinking water supplies and their source water protection areas mapped by the Maine Drinking Water Program, private drinking water supplies, significant sand and gravel aquifers mapped by the Maine Geological Survey, surface water bodies, and occupied buildings potentially at risk in the event of vapor intrusion pathways. If known, the next land use of the facility parcel is to be identified and the potential for residents, recreation users, outdoor commercial workers and construction workers to be exposed to oil contaminated soils evaluated.

F. Oil contamination assessment. Soil in the tank and piping excavation holes and under dispensers, as well as areas of identifiable surface spills, are to be evaluated for oil contamination by one of the methods below.

(1) In accordance with the soil field analytical method and notification protocols described in paragraph 2 of Appendix Q of this rule.

(2) A soil and ground water contamination investigation relying upon geoprobing, soil test pits, or other similar intrusive methods to assess the presence and areal extent of oil contaminated soils and the presence of ground water contamination, based on a sampling plan submitted and approved by the commissioner in advance of facility closure and oil contaminated soil notification levels presented in Table 1 of this Appendix. Such an assessment shall include an estimate of the volume of contaminated soils recommended for remediation in accordance with Section 12.

(3) Another sampling method and plan able to reliably determine the presence of oil contaminated soil and ground water, submitted to and approved by the commissioner prior to commencement of the facility closure.

9. Requirements for facilities installed on or in bedrock. In addition to other applicable site assessment requirements in this appendix, when a tank or piping run has been installed onto or in bedrock without adequate soil backfill or bedding to test for soil contamination, a minimum of two (2) down gradient ground water monitoring wells must be installed under the supervision of a Maine certified geologist or Maine registered professional engineer in addition to above requirements of this Appendix. Additional wells may be required by the commissioner for tanks with more than 20,000 gallons capacity. Monitoring wells must be sampled for visual and olfactory evidence of oil as well as for dissolved phase product using a hydrocarbons laboratory analysis method meeting the requirements of Appendix S and appropriate for the oil products stored at the facility in the past. The detection of oil contamination must be reported to the commissioner within 2 hours by the facility owner or operator. This subparagraph applies to all removed facilities required to do a site assessment, including heavy oil facilities.

10. Site assessment requirements when tanks and piping are abandoned in place

A. The requirements of this section apply whenever a facility or any portion of a facility are abandoned in place and are not removed. If a tank, piping section or other underground component is not removed, these requirements only apply to that particular portion of the entire facility.

B. All visible portions of the facility must be inspected for evidence of a leak, spill, overfill or other discharge, including areas around the fill and vent pipes.

C. Evidence of contaminated soils from a tank leak must be determined by either of the methods below:

(1) A minimum of two soil borings must be made per tank, located as close as technically feasible to intersect any oil contamination from the surface to below the estimated depth of the tank bottom or to bedrock or below the groundwater table, whichever is shallower. An additional number of borings may be required by the commissioner for tanks with more than 20,000 gallons capacity. The borings must be logged and screened continuously for visual evidence of oil stained and saturated soils, and oil vapors using a photo or flame ionization field instrument as removed from the ground. A sample must be taken from soil showing the highest reading for field analysis using a method outlined in paragraph 1 of Appendix Q or another commissioner approved method of comparable accuracy and sensitivity.

(2) Other subsurface investigation methods approved by the commissioner.

D. If piping cannot be removed such that entire excavation can be inspected, evidence of an oil discharge from the piping is to be evaluated using a methodology appropriate for the site conditions and approved in advance by the commissioner.

E. When a facility was installed on or into bedrock, when borings encounter bedrock before reaching an elevation below that of the bottom of the tank or piping, or when ground water is encountered prior to reaching the depth below that of the tank or piping; a minimum of two ground water monitoring wells must be installed down gradient, as close as feasible. For tanks greater than 20,000 gallons capacity, the commissioner may require additional monitoring wells. Monitoring wells samples must be inspected for visual and olfactory evidence of oil as well as analyzed for dissolved phase gasoline, diesel fuel or heating oil, depending on the oil products

stored at the facility in the past. Only results from a laboratory method meeting the requirements of Appendix S will be accepted by the commissioner. The detection of oil contamination must be reported to the commissioner within 2 hours by the facility owner or operator.

F. When the above site assessment procedures for a facility to be abandoned in place are not technically feasible, another procedure may be used when approved by the commissioner prior to the initiation of facility closure.

10. After-the-fact site assessments. For circumstances when an underground oil storage facility was previously removed without a site assessment to determine if oil contamination is present, a site specific investigation and sampling plan is required. Such a sampling plan should at a minimum include soil borings, test pits or other similar invasive means to collect soil samples to the depth of a typical tank installation, and describe the field or laboratory analytical methods proposed for use. The sampling plan must be submitted in advance of conducting the work for commissioner approval. The commissioner may require sampling of ground water or drinking water supplies where warranted.

Appendix Q: Determination of the Presence and Concentration of Oil Contaminated Soils by Field and Laboratory Analytical Methods as Part of an Underground Oil Storage Facility Closure Site Assessment

One of the following soil sampling methods is to be utilized when conducting a site assessment in accordance with this rule. For the purpose of site assessment soil testing requirements, soil shall mean sand, silt, clay and mixtures thereof to which oil or oil components may adsorb. Soil does not include pea stone, crushed stone, or similar materials used for backfill around tanks, piping and other facility components.

1. The Department's April 11, 2011 standard operating procedure, Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil; or

2. Standardized soil sampling protocol for laboratory analysis and associated notification levels.

   A. Applicability. This soil sampling procedure is only applicable to facilities that stored gasoline, aviation gasoline, diesel fuel, and #1 and#2 heating oils. Because of the degree of professional judgment required by this procedure, site assessments conducted by this method will only be accepted by the commissioner when certified by a Maine certified geologist, a Maine registered professional engineer or geologist or engineer otherwise in compliance with Maine's professional regulation statutes.

   B. Field screen soil from the walls and bottom of the tank excavation hole and piping run and under dispensers using a photo-ionization device (PID) with a lamp energy of 10.2 to 10.6 eV, calibrated to isobutylene in accordance with the instrument's manufacturer instructions and bump tested to check the calibration at the start of each day and after every 2 hours of use;

   C. PID field screening to identify suspected oil contaminated soils is to be conducted in accordance with the following minimum requirements:

      1. Collection of 200 gram (6 oz.) soil samples, each placed in a double layered metalized polyester and polyethylene bag, closed, kneaded to break clumps, shaken for 30 seconds, and the headspace concentration immediately measured with the PID while the bag is closed around the instrument probe;

      2. Collection of at least 5 samples for field analysis from the tank excavation ,1 from each side wall and 1 from the excavation bottom;

      3. Collection of at least 1 sample from beneath each dispenser or loading rack;

      4. Collection of samples along each piping run beneath the location of joints, elbows, sump penetrations and other likely locations of possible leaks; and

      5. Recording of headspace readings.

   D. Soil samples are to be collected for laboratory analysis from the following locations and where in the professional judgment of the site assessor the highest concentrations of oil contamination will be found:

      1. At facilities storing gasoline or aviation gasoline, a minimum of one (1) location from the tank excavation, one (1) location from beneath piping and one (1) location beneath a dispenser where PID bag headspace readings are 40 ppm or greater;

2. At facilities storing diesel fuels, or #1 or #2 fuel oils, a minimum of one (1) location from the tank excavation, one (1) location from beneath piping and one (1) location beneath dispensers where PID bag headspace readings are 10 ppm or greater; and

3. Regardless of PID field screening results, a minimum of two (2) verification soil samples for laboratory analysis shall be collected, one (1) from the bottom of the tank excavation, and one (1) from beneath a dispenser or piping run.

E. Laboratory soil and water samples shall be analyzed for volatile (VPH) and extractible petroleum hydrocarbons (EPH), as appropriate for the oil products stored at the facility, in accordance with the Massachusetts Department of Environmental Protection Hydrocarbon Fractions Laboratory Method and Appendix S.

F. Any exceedance of the VPH and EPH laboratory notification levels for soil in Table 1 below is considered evidence of a reportable oil discharge, and shall be reported by the facility owner or operator within two (2) hours of discovery.

G. Any VPH or EPH analytical result from ground water indicative of contamination as defined in this rule is considered evidence of a reportable discharge and shall be reported by the facility owner or operator within two (2) hours of discovery. Table 2 presents ground water notification levels based on maximum exposure guidelines published by the Maine Center for Disease Control and Prevention. Methyl tertiary butyl ether (MTBE) concentrations 35 ppb or greater exceed the State of Maine Maximum Contaminant Level for this gasoline additive, are indicative of contamination, and shall be reported as evidence of a discharge.

Table 1
VPH and EPH Soil Notification Levels

Chemical/Fraction	Concentration (mg/kg)
2-Methylnaphthalene	3.6
Acenaphthene	170
Acenaphthylene	68
Anthracene	760
Benzene	0.51
Benzo(a)anthracene	2.3
Benzo(a)pyrene	2.3
Benzo(b)fluoranthene	3.5
Benzo(g,h,i)perylene	750
Benzo(k)fluoranthene	2.6
Chrysene	26
Dibenz(a,h)anthracene	0.48
Ethylbenzene	0.81
Fluoranthene	1,000
Fluorene	120
Indeno(1,2,3-cd)pyrene	1.6
Lead	170
Methyl tert-butyl ether	0.19
Naphthalene	1.7
Phenanthrene	97
Pyrene	750

Toluene	8.1
Xylene	26
C5-C8 Aliphatics	1400
C9-C12 Aliphatics	2700
C9-C18 Aliphatics	2700
C19-C36 Aliphatics	10,000
C9-C10 Aromatics	75
C11-C22 Aromatics	460

Table 2

VPH and EPH Notification Levels in Ground Water

Chemical/Fraction	Concentration (mg/kg)
-	-
2-Methylnaphthalene	30
Acenaphthene	400
Acenaphthylene	400
Anthracene	2000
Benzene	4.0
Benzo(a)anthracene	0.5
Benzo(a)pyrene	0.05
Benzo(b)fluoranthene	0.5
Benzo(g,h,i)perylene	200
Benzo(k)fluoranthene	5.0
Chrysene	50
Dibenz(a,h)anthracene	0.05
Ethylbenzene	30
Fluoranthene	300
Fluorene	300
Indeno(1,2,3-cd)pyrene	0.5

Lead	10
Methyl tert-butyl ether[1]	35
Naphthalene	10
Phenanthrene	200
Pyrene	200
Toluene	600
Xylene	1000
C5-C8 Aliphatics	300
C9-C12 Aliphatics	700
C9-C18 Aliphatics	700
C19-C36 Aliphatics	10,000
C9-C10 Aromatics	200
C11-C22 Aromatics	200

[1] MTBE is based on the State MCL established in Chapter 231 of the Maine Department of Health and Human Services regulations, Rules for Drinking Water.

Appendix R: List of National Standards and Codes Cited

1. American National Standards Institute (ANSI/ASME), 1430 Broadway, NY 10018

   - Process Piping, ANSI/ASME B31.1, 2001.

2. American Petroleum Institute (API), 1220 L Street, Northwest, Washington, DC 20005-40.

   - Welded Steel Tanks for Oil Storage, API Standard 650, 11th edition, 2007.
   - Closure of Underground Petroleum Storage Tanks, API Recommended Practice 1604, 3rd Edition, 2010;
   - Installation of Underground Petroleum Storage Systems, API Publication 1615, 6th Edition, 2011;
   - Bulk Liquid Stock Control at Retail Outlets, API Recommended Practices 1621, 5th Edition, May 1993.
   - Interior Lining and Periodic Inspection of Existing Steel Underground Storage Tanks, API Recommended Practice 1631, 5th Edition, June, 2001;
   - Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems, API Recommended Practice 1632, 3rd edition, 2002.
   - Pressure Testing of Liquid Petroleum Pipelines, Recommended Practice 1110, 4th Edition, 1997.
   - Design, Construction, Operation, Maintenance, and Inspection of Terminal & Tank Facilities, API Standard 2610, 1st ed., July 1994.

3. National Association of Corrosion Engineers (NACE) International, 1440 South Creek Drive, Houston, Texas 77084-4906.

   - Standard Recommended Practice, Corrosion Control of Underground Storage Tank Systems by Cathodic Protection, NACE Standard SP-0285-2011 Edition
   - Standard Recommended Practice, Control of External Corrosion on Underground or Submerged Metallic Piping Systems, NACE Standard SP 0169-2007.
   - Standard Test Method, Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Tank Systems, NACE Standard TM0101-20074.
   - Standard Test Method, Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Piping Systems, NACE Standard TM 0497-2002.

4. National Fire Protection Association (NFPA), 11 Tracy Drive, Avon, MA 02322.

   - Flammable and Combustible Liquids Code, NFPA 30-2012
   - Code for Motor Fuel Dispensing Facilities and Repair Garages, NFPA 30A-2012.

- Standard of the Installation of Oil Burning Equipment, NFPA 31, 2011~~01~~.

5. Petroleum Equipment Institute (PEI), P. O. Box 2380, Tulsa, Oklahoma 74101.

   - Recommended Practices for Installation of Underground Liquid Storage Systems, PEI Publication RP 100-2011;
   - Recommended Practices for Inspection and Maintenance of Motor Fuel Dispensing, PEI RP500, 2008.
   - Recommended Practices for Inspection and Maintenance, PEI RP900, 2008.
   - Recommended Practices for Marina Fueling Systems, PEI RP1000, 2009.
   - Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities, PEI RP 1200-2012.

6. Steel Tank Institute (STI), 5700 Oakwood Rd, Lake Zurich, IL 60047.

   - Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with Liquid Storage and Dispensing Systems, R892- 2006.

   - STI-P3 Specification and Manual for External Corrosion Protection of Underground Storage Tanks.

   - STI Specification for Permatank, STI – F922.

   - Specification of External Corrosion Protection of FRP Composite, Steel USTS, F894-2010.

7. Underwriters Laboratories Inc. (UL), 333 Pfingsten Road, Northbrook, Illinois 60062-2096.

   - Steel Underground Tanks for Flammable and Combustible Liquids UL Standard 58, December 13, 1996.

   - Nonmetallic Underground Piping for Flammable Liquids , UL Standard 971, as revised through March 2, 2006.

   - Glass-Fiber Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixture. UL Standard 1316. January 7, 1994.

   - External Corrosion Protection Systems for Steel Underground Storage Tanks, UL Standard 1746, 2007.

   - Standard for Emergency Breakaway Fittings, Swivel Connectors and Pipe Connectors for Petroleum Products and LP-Gas, UL Standard 567, 2003.

8. Underwriters Laboratories of Canada, 7 Underwriters' Road, Toronto, ON, M1R3B4

- Standard for External Corrosion Protection for Steel Underground Tanks CAN/ULC-S603-2011.
- Standard for Isolating Bushings for Steel Underground Tanks Protected with External Corrosion Protection Systems, ULC – S 631.
- Standard for Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids, ULC – S615.
- Standard for Non-metallic Underground Piping for Flammable Liquids, ULC – S660.
- Non-metallic Underground Piping for Flammable and Combustible Liquids, ULC/ORD – C971-2005.
- Flexible Underground Hose Connectors, UL Canada Standard CAN/ULC-S633, 1999.
- Double Containment Fiber-Reinforced Plastic Linings for Flammable and Combustible Liquids Storage Tanks, ULC/ORD C58.4-05, August 25, 2006

Appendix S: Department Approved Laboratory Analytical Methods and Performance Standards for Analyses of Oil and Oil Constituents in Water, Soil, Soil Gas and Indoor Air

1. All chemical laboratory analyses of soil, water and indoor air or soil gas samples required by these rules must meet the requirements of this Appendix. Sampling and analyses will be conducted in accordance with quality assurance procedures approved by the commissioner. The commissioner may require test methods and parameters other than those listed in this Appendix to address site specific circumstances.

2. Soil and water analyses. Acceptable laboratory methods for the analysis of soil and water for oil contamination include those listed below.

   A. For soil and water samples of weathered diesel, weathered #1 and #2 fuel oils, weathered jet fuel, and heavy oils – Extractible Petroleum Hydrocarbons (EPH) Analysis by Massachusetts Department of Environmental Protection, Division of Environmental Analysis; Method for Determination of Extractable Petroleum Hydrocarbons (EPH), Version 1.1, July 2004.

   B. For soil and water samples of fresh diesel fuel, #2 heating oil, jet fuels, kerosene/#1 heating oil – Volatile Petroleum Hydrocarbons (VPH) Analysis by Massachusetts Department of Environmental Protection , Division of Environmental Analysis Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Version 1.1, July 2004 in conjunction with EPH analysis.

   C. Waste oil in soil or water that is not suspected of being a hazardous waste is to be analyzed using the Massachusetts Department of Environmental Protection EPH and VPH laboratory methods above.

   D. Water samples of unleaded gasoline and gasoline constituents - Volatile Petroleum Hydrocarbons (VPH) Analysis by Massachusetts Department of Environmental Protection, Division of Environmental Analysis Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Version 1.1, July 2004 in conjunction with EPH analysis.

   E. Water samples of leaded gasoline in water, VPH and the following methods:

      (1) 1,2 DCA (1,2 dichoroethane) in ground water or drinking water – U.S. Environmental Protection Agency Method 524.2 (August, 1992) or 8260 (August 2006);

      (2) EDB (Ethylene dibromide) in ground water or drinking water - U. S. Environmental Protection Agency Method 504.1 (1995) or 8011 (July 1992); and

      (3) Lead in ground water or drinking water - U. S. Environmental Protection Agency Methods 200.7 (1982), 200.8 (1994), 200.9 (1994), 6020 (2007), or 7010 (2007).

   F. Soil samples of gasoline and gasoline constituents - Volatile Petroleum Hydrocarbon (VPH) Analysis by the Massachusetts Department of Environmental Protection, Division of Environmental Analysis, Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Version 1.1, July 2004.

   G. Other laboratory methods for testing for the presence and concentrations of oil and its constituents in soil or water, approved by or required by the commissioner, such as indicator parameters for specific site conditions or circumstances.

3. Indoor air and soil gas analyses.

   A. Massachusetts Department of Environmental Protection Method for the Determination of Air Phase Petroleum Hydrocarbons (APH), December 2008 in conjunction with U.S. EPA Method TO-15 SIM, Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed By Gas Chromatography Mass Spectrometry (GC/MS), January 1999.

   B. Other laboratory methods for testing for the presence and concentrations of petroleum hydrocarbons in the air phase approved by or required by the commissioner for a specific site or circumstance.

4. Other analytes. When testing for analytes other than those listed in paragraphs 2 and 3 above, the laboratory methods must be approved by the commissioner prior to the collection of samples.

5. Performance standards.

   A. For water analyses by the Massachusetts Department of Environmental Protection Methods for EPH or VPH, laboratories must be certified to perform the method by the Maine Department of Health and Human Services at the time an analysis is performed and meet quality control standards set forth in section 10 of the analytical method.

   B. For soil analyses by the Massachusetts Department of Environmental Protection Methods for EPH or VPH, laboratories must be certified to perform the method by the Maine Department of Health and Human Services at the time an analysis is performed and meet quality control standards set forth in section 10 of the analytical method.

   C. For water analyses, other than EPH and VPH methods, the Estimated Quantitation Limit (EQL), as determined by EPA guidelines, SW-846, is to be equal to or lower than the Maximum Contaminant Level (MCL) or primary drinking water standard, and in the absence of a MCL, is to be less than the Maine Department of Health and Human Services published Maximum Exposure Guideline (MEG) or site remediation target approved by the commissioner for that test parameter.

   D. For soil analyses by methods other than EPH and VPH methods, the Estimated Quantitation Limit (EQL), as determined by EPA guidelines SW-846, is to be equal to or less than the U.S. Environmental Protection Agency MCL and applicable remediation target.

   E. All laboratory analytical data submitted to the commissioner pursuant to this rule must come from a laboratory certified under the applicable requirements of the Maine Department of Health and Human Services rules.

STATUTORY AUTHORITY: 38 ~~M.R.S.A.~~M.R.S., sections 341-H and 561 *et seq.*

EFFECTIVE DATE:
April 5, 1986 – filing 86-99

AMENDED:
July 21, 1987
March 28, 1990

REPEALED AND REPLACED:
September 16, 1991

EFFECTIVE DATE (ELECTRONIC CONVERSION):
May 4, 1996

AMENDED:
December 24, 1996
June 13, 2002 – Section 3-A, Appendix T -- also, graphics inserted into file
March 14, 2004 – filing 2004-88
April 3, 2007 – filing 2007-115
September 12, 2010 – filing 2010-392
March 13, 2012 – filing 2012-71
January 7, 2014 – filing 2014-003

BASIS STATEMENT

Amendments to Chapters 600, 685, 686, and 691

Chapter 600 *Oil Discharge Prevention and Pollution Control Rules for Marine Oil Terminals Transportation Pipelines and Vessels*
Chapter 685 *Payment and Reimbursement of Oil Transfer Fees*
Chapter 686 *Standards for Assessing Ability to Pay Deductibles Under the State Insurance Program for Oil Storage Tanks*
Chapter 691 *Rules for Underground Oil Storage Facilities*

History

- The amendments to 06-096 CMR Chapters 600 *Oil Discharge Prevention and Pollution Control Rules for Marine Oil Terminals Transportation Pipelines and Vessels*, 685 *Payment and Reimbursement of Oil Transfer Fees*, , 686 *Standards for Assessing Ability to Pay Deductibles Under the State Insurance Program for Oil Storage Tanks*, and 691 *Rules for Underground Oil Storage Facilities* were made to align the Department's rules with changes in the underlying statutes made by the 127th Legislature in PL 2015 c. 319. As a result of this legislation these amendments reflect:

    - The combination of the Maine Coastal and Inland Surface Oil Clean-up Fund and the Ground Water Oil Clean-up Fund to create the Maine Ground and Surface Waters Clean-up and Response Fund;
    - The combination of the Fund Insurance Review Board and the Oil Spill Advisory Committee to create the Clean-up and Response Fund Review Board;
    - Clarification of certain definitions;
    - Changes in statutory citation;
    - A change in the fund threshold from $5 million to $6 million when the Clean-up and Response Fund Review Board may increase oil transfer fees;
    - Clarification of when fees are refunded for exported oil products; and
    - Various minor stylistic and formatting revisions.

- A 30-day public comment period was held from December 16, 2015 to January 16, 2016.

- No comments were received.

- The Department made non-substantive changes after consultation with the Maine Office of Attorney General.

Appendix C

Table of Proposed Routine Program Changes

APPENDIX C
Routine Program Changes to the MAINE COASTAL MANAGEMENT PROGRAM:
Core Law Changes from 127th Maine Legislature, Second Regular Session and select administrative rule changes
June 2016

The proposed routine program changes, which are listed in this table, are comprised of changes to the core laws which provide the Maine Coastal Program's enforceable policies that were enacted by the 127th Maine Legislature, Second Regular Session, which convened on January 6, 2016, and adjourned *sine die* on April 29, 2016. In addition, the proposed routine program changes include changes to the following rules administered by the Department of Environmental Protection ("DEP"): Chapter 373 (financial and technical capacity standards); Chapter 375 (no adverse environmental effect standard); and Chapter 380 (long-term construction projects), which implement provisions of the Site Location of Development Act ("Site Law"); and Chapter 501 (stormwater compensation and mitigation fees) and Chapter 691 (requirements for underground oil storage facilities). The Maine Department of Agriculture, Conservation and Forestry, Maine Coastal Program, seeks to incorporate these changes, detailed below, as routine program changes for purposes of federal consistency review as applicable. With the exception of changes marked with an asterisk (*), which concern program administration, authorities or organization and are not proposed as enforceable policies *per se*, these changes are proposed as enforceable policies.

NOTE: *See* Attachment B for the text of these statutory changes.

Name/Description of State Law/ Regulation/Policy/ Program Authority or Change	Public Law 2015, chapter and section(s)	State Statutory or Rule Citation	Enforcement Mechanism(s)	State Effective Date	Notes
MODIFIED:					
STATUTES					
Updates cross-reference in Maine Endangered Species Act (MESA)	**423(1)**	**12 M.R.S. §12808, sub-§§1, 1-A**	DIFW enforcement; state license or permit	4.1.16	

ADMINISTRATIVE RULES					
Amends the definition of "ambient increment" in DEP's air quality rules to clarify that DEP shall presume actual emissions from 2010 to be representative of normal operation as concerns 'PM2.5", a type of particulate pollution	**n/a**	**CMR 06-096, ch. 100, section 11(C)**	DEP air license	5.22.16	
Amends the definition of "regulated pollutant" in DEP's air quality rules to clarify that nitrous oxides as well as volatile organic compounds are precursors to ozone pollution	**n/a**	**CMR 06-096, ch. 100, section 149(I)(3)**	DEP air license	5.22.16	
Amends the definition of "significant emissions" in DEP's air quality rules to clarify a reference to nitrous oxide (NOx)	**n/a**	**CMR 06-096, ch. 100, section 156(A)**	DEP air license	5.22.16	
Amends the financial capacity-related provisions in DEP rules ch, 373, which implement the financial and technical capacity standard of the Site Law (38 M.R.S. §484(1)), to clarify: • the nature and scope of the standard (section 2(A));	**n/a**	**CMR 06-096, ch. 373, section 2 (as renumbered)**	Site Law permit	6.3.16	

• information that must be submitted to show financial capacity to design, construct, operate, and maintain a proposed Site Law project (section 2(B)); and • financial capacity-related terms and conditions which may be included in a Site Law permit, including provision for a performance bond (section 2(C))					
Amends the technical capacity-related provisions in DEP rules ch., 373, which implement the financial and technical capacity standard of the Site Law (38 M.R.S. §484(1)), to clarify: • the nature and scope of the standard (section 3(A)); • information that must be submitted to show financial capacity to design, construct, operate, and maintain a proposed Site Law project (section 3(B)); and • financial capacity-related terms and conditions which may be included in a Site Law permit, including provision for a performance bond (section 3(C))	**n/a**	**CMR 06-096, ch. 373, section 3 (as renumbered)**	Site Law permit	6.3.16	

Makes technical correction changing the term "board" to "department" in a variety of places in ch. 375 to accurately reflect the role of the commissioner of Department of Environment Protection and its staff, as opposed to the Board of Environmental Protection (this citizen board is a sub-unit of the department), in rulemaking and permitting under the Site Law	**n/a**	**CMR 06-096, ch. 375, various section**	Site Law permit	6.3.16	
Corrects typo	**n/a**	**CMR 06-096, ch. 501, section 1**	DEP stormwater permit	5.22.16	
Corrects typo	**n/a**	**CMR 06-096, ch. 501, section 2(H) and**	DEP stormwater permit	5.22.16	
Amends DEP's rules (ch. 501) regarding stormwater management compensation fees and mitigation credits) to clarify mitigation credits applicable to certain activities involving landscaped areas, parking lots and rooftops	**n/a**	**CMR 06-096, ch. 501, section 3(A), Table 2**	DEP stormwater permit	5.22.16	
Technical correction	**n/a**	**CMR 06-096, ch. 501, section 3(B) and (C)**	DEP stormwater permit	5.22.16	
Technical correction	**n/a**	**CMR 06-096, ch. 691,**	DEP permit or	4.3.16	

		section 1	enforcement action		
Technical correction	**n/a**	**CMR 06-096, ch. 691, section 3(K)**	DEP permit or enforcement action	4.3.16	
Technical, editorial corrections	**n/a**	**CMR 06-096, ch. 691, section 3(FF),(YY),(ZZ), and (BBB)**	DEP permit or enforcement action	4.3.16	
Technical, editorial corrections	**n/a**	**CMR 06-096, ch. 691, section 4(O)**	DEP permit or enforcement action	4.3.16	
Technical, editorial corrections	**n/a**	**CMR 06-096, ch. 691, section 5((B)(3-4)**	DEP permit or enforcement action	4.3.16	
Technical, editorial corrections	**n/a**	**CMR 06-096, ch. 691, section 5(C)(1)**	DEP permit or enforcement action	4.3.16	
Technical, editorial corrections, including reference to the Maine Ground and Surface Waters Cleanup and Response Fund	**n/a**	**CMR 06-096, ch. 691, section 5(D)(12, 18, 20, and 21)**	DEP permit or enforcement action	4.3.16	
Technical, editorial correction	**n/a**	**CMR 06-096, ch. 691, section 5(F)**	DEP permit or enforcement action	4.3.16	
Technical, editorial correction	**n/a**	**CMR 06-096, ch. 691, section 6(B)(4),(6)**	DEP permit or enforcement action	4.3.16	

Technical, editorial correction	n/a	**CMR 06-096, ch. 691, section 7(A)**	DEP permit or enforcement action	4.3.16	
Technical, editorial correction	n/a	**CMR 06-096, ch. 691, section 7(A)**	DEP permit or enforcement action	4.3.16	
Technical, editorial correction	n/a	**CMR 06-096, ch. 691, section 8(B)(4)**	DEP permit or enforcement action	4.3.16	
Technical, editorial correction	n/a	**CMR 06-096, ch. 691, section 9(B)(4)**	DEP permit or enforcement action	4.3.16	
Technical, editorial correction	n/a	**CMR 06-096, ch. 691, section 10(C)(2)**	DEP permit or enforcement action	4.3.16	
Technical, editorial correction	n/a	**CMR 06-096, ch. 691, section 11(B)(1)**	DEP permit or enforcement action	4.3.16	
Technical, editorial correction	n/a	**CMR 06-096, ch. 691, section 11(C)(3),(4)**	DEP permit or enforcement action	4.3.16	
Technical, editorial correction, including correction of cross-reference	n/a	**CMR 06-096, ch. 691, section 12(C)(2)**	DEP permit or enforcement action	4.3.16	
Corrects reference to the Maine Ground and Surface Waters Cleanup and Response Fund	n/a	**CMR 06-096, ch. 691, section 12(D)**	DEP permit or enforcement action	4.3.16	
Technical, editorial correction	n/a	**CMR 06-096, ch. 691,**	DEP permit or	4.3.16	

		section 12(H)	enforcement action		
ADDED:					
STATUTES					
Consolidates and replaces prior MESA provisions regarding education and research-related and incidental take authorization and adds a new section allows for development and approval of an incidental take plan that covers a "widespread activity", subject to conditions to safeguard listed species' prospects of recovery	**423(2)**	**12 M.R.S. §12808-A**	DIFW enforcement; state license or permit	4.1.16	
ADMINISTRATIVE RULES					
Adds an explanatory introduction section to DEP's ch. 373 rules which establish financial and technical capacity requirements for an applicant for a Site law permit; technical correction – renumbers sections	**n/a**	**CMR 06-096, ch. 373, section 1**	Site Law permit	6.3.16	
Adds standard, formerly addressed under DEP rules ch. 373, regarding assurance of adequate provision for solid waste disposal to the	**n/a**	**CMR 06-096, ch. 375, section 16**	Site Law permit	6.3.16	

DEP's ch. 375, which implements the Site Law's "no unreasonable adverse effect on the environment" standard					
Adds standard, formerly addressed under DEP rules ch. 373, regarding assurance of adequate provision for control of odors to the DEP's ch. 375, which implements the Site Law's "no unreasonable adverse effect on the environment" standard	**n/a**	**CMR 06-096, ch. 375, section 17**	Site Law permit	6.3.16	
Adds standard, formerly addressed under DEP rules ch. 373, regarding assurance of adequate provision for securing and maintain sufficient and healthful water supplies to the DEP's ch. 375, which implements the Site Law's "no unreasonable adverse effect on the environment" standard		**CMR 06-096, ch. 375, section 18**	Site Law permit	6.3.16	
Establishes requirements for a Site Law permit for a "long-term construction project", defined as project authorized by an individual Site Law permit or amendment to a Site Law permit "for construction that either is not anticipated at the time of approval to be substantially completed, or is not substantially completed, within ten years from the date" the permit is approved; includes provisions to ensure periodic reporting, submission of updated information, and assurance that a "long-term construction project" is subject to	**n/a**	**CMR 06-096, ch. 380**	Site Law Permit	6.3.16	

Site Law requirements in place at the time the construction is undertaken; repeals and replaces former chapter 380, which established a little-used Site Law "planning permit"					
REPEALED: * -repealed provisions are not themselves proposed as enforceable policies					
Repeals education and research-related and incidental take authorization provisions in MESA, which are replaced by new 12 M.R.S. §12808-A. See above.	**423(1)**	**12 M.R.S. §12808, sub-§§2, 3**	n/a	4.1.16	
ADMINISTRATIVE RULES					
Repeals section addressing assurance of adequate provision for solid waste disposal in DEP's Site Law rules regarding applicant's financial and technical capacity; this provision, as amended, is re-enacted in DEP rules ch. 375 (see above)	**n/a**	**CMR 06-096, ch. 373, section 3**	n/a	6.3.16	
Repeals section addressing assurance of adequate provision for control of odors in DEP's Site Law rules regarding applicant's financial and technical capacity; this provision, as amended, is re-enacted in DEP rules ch. 375 (see above)	**n/a**	**CMR 06-096, ch. 373, section 4**	n/a	6.3.16	

Repeals section addressing assurance of adequate provision for securing and maintaining sufficient and healthful water supplies in DEP's Site Law rules regarding applicant's financial and technical capacity; this provision, as amended, is re-enacted in DEP rules ch. 375 (see above)	**n/a**	**CMR 06-096, ch. 373, section 5**	n/a	6.3.16	
Repealed and replaced; see above	**n/a**	**CMR 06-096, ch. 380**	n/a	6.3.16	

Appendix D

Text of repealed provisions

- **12 M.R.S. §12808, sub-§§2-3**

2. Exceptions for certain purposes. Notwithstanding subsections 1 and 1-A or section 10650 as it applies to rules adopted in accordance with this subchapter, the commissioner may:

A. Under such terms and conditions as the commissioner may prescribe, permit any act prohibited by this section or by rule for educational or scientific purposes or to enhance the propagation or survival of an endangered or threatened species; and

B. Under such terms and conditions as the commissioner may prescribe, permit any endangered or threatened species that enters the State and is being transported to a point outside the State to be so entered and transported without restriction in accordance with the terms of any federal or state permit. [

3. Exceptions; incidental take plan. Notwithstanding subsection 1, the commissioner may:

A. Permit the taking of any endangered species or threatened species if:

(1) Such taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity;

(2) The taking will not impair the recovery of any endangered species or threatened species; and

(3) The person develops and implements an incidental take plan approved by the commissioner to take an endangered species or threatened species pursuant to paragraph B; and

B. Allow a plan that minimizes the incidental taking of an endangered species or threatened species that specifies the following:

(1) A description of the specific activities sought to be authorized by the incidental take permit and an analysis of potential alternatives;

(2) The individual and cumulative effects that may reasonably be anticipated to result from the proposed actions covered by the plan;

(3) The recovery measures the applicant will implement to prevent, minimize and mitigate the individual and cumulative effects and any provisions that are necessary to prevent, minimize and mitigate circumstances that are likely to impair the recovery of any endangered or threatened species covered by the plan;

(4) The procedures for monitoring the effectiveness of the recovery measures in the plan;

(5) The anticipated costs of implementing the plan and the availability of necessary funding for the applicant to implement the plan; and

(6) Other modifications to the plan or other additional measures, if any, that the department may require and such other matters as the department determines to be necessary for the recovery of species consistent with this section.

The department shall seek input from knowledgeable individuals or groups on each incidental take plan for endangered or threatened species.

If any person fails to abide by the terms of any permit authorizing the incidental taking of an endangered or threatened species, the permit must be immediately suspended or revoked.

06-096 DEPARTMENT OF ENVIRONMENTAL PROTECTION

Chapter 380: PLANNING PERMIT

SUMMARY: These rules describe requirements associated with a planning permit, as provided for by 38 M.R.S.A. § 485-A(1-C).

1. **Definition of planning permit.** A planning permit is an individual permit, issued pursuant to the Site Location of Development Law (Site Law), 38 M.R.S.A. §§ 481-490. It includes approval for future build-out in a delineated area within specified parameters. See 38 M.R.S.A. § 485-A(1-C). It is intended for developments occupying large areas of land that will be constructed over a significant period of time, such as some industrial parks, airports, and resorts. A planning permit may be sought as an optional alternative to individual approvals for specifically described and located projects. A planning permit is not available for metallic mineral mining or advanced exploration activities.

2. **Standards.** The applicant shall affirmatively demonstrate that the development meets the standards at 38 M.R.S.A. § 484, and the rules adopted pursuant thereto. All resources protected under the Site Law must be identified and protected in the areas proposed for development, although the specific nature and extent of that development may not be known at the time that the permit is issued. The applicant shall identify aspects of the development such as the maximum area of development, the types and maximum volume of waste, procedures for waste disposal, potential impacts to surface water and groundwater, and infrastructure requirements in each subwatershed or other relevant division of the area licensed under the permit. The department may place conditions on the permit to address specific aspects of the unspecified future development, including but not limited to noise, storage and handling of potential contaminants, air quality, impact on climate, and scenic character.

   Under a planning permit, an activity may not be conducted in an area where the department determines that the activity may have a direct or indirect unreasonable impact on nearby properties, protected natural resources, natural buffer strips, unusual natural areas, historic sites, or wildlife and fisheries, unless measures to mitigate or prevent these impacts for the specific site of the proposed activity have been previously approved by the department. An activity may not be conducted in an area where the department determines that the activity would create an unacceptable risk of unreasonable environmental impact, due to factors including but not limited to steep slopes or highly erodable soils, unless measures to mitigate or prevent the impacts are approved by the department.

   Construction or other activities conducted under this chapter must be supervised by the professional that was responsible for design of the activity in order to ensure conformity with the design, unless otherwise approved by the department. The duties of this professional include, but are not limited to, preparation of a site-specific erosion control plan; supervision of the installation and maintenance of erosion control measures employed during construction; and removal of temporary erosion control measures and stabilization of the site.

3. **Submissions.** A permit is required for all areas of the parcel to be developed. In addition to the submissions referenced elsewhere in rules adopted pursuant to the Site Law, the following items must be submitted.

   A. **Map.** A map of the area proposed for licensing under the planning permit, including both areas of specified and unspecified development, meeting the following criteria.

This plan must show all existing facilities at the site, and delineate all watersheds on the parcel that include areas covered under the planning permit, and include information on soil types in those watersheds available from county soil surveys or the equivalent. For any areas covered under the planning permit within which development is proposed, the applicant shall submit more detailed soils information at a mapping class to be determined by the department. The plan must identify areas such as protected natural resources as defined in the Natural Resources Protection Act (NRPA), natural buffer strips, unusual natural areas, archeological and historic sites, and wildlife and fisheries habitat. The contour interval of this plan must be two feet, except in areas of sustained slopes of twenty percent or greater, in which case a five-foot contour interval may be acceptable, as determined by the department. Larger contour intervals may be approved for large developments of two hundred fifty acres or more and relief greater than two hundred feet within the developed area of the parcel. The scale of this plan must be as defined below, unless another scale is specifically approved by the department.

(1) For developments of 100 acres or less in total area, the scale must be 1 inch equals no more than 100 feet.

(2) For developments of more than 100 acres but less than 250 acres in total area, the scale must be 1 inch equals no more than 200 feet.

(3) For developments of 250 acres or more in total area, the required scale must be determined by the department.

(4) For any development, the department may require more detailed topographic maps in certain areas of concern, and in those areas where development or structures have been localized within smaller areas of a larger parcel. The scale of these maps is determined by the department on a case-by-case basis.

B. Stormwater management. Plans at the scale required in 3(A), above, identifying all areas of watersheds most at risk from new development, sensitive or threatened regions or watersheds, and other areas. Stormwater requirements are specified in 38 M.R.S.A. § 420-D, and rules adopted pursuant thereto. The applicant shall provide the following information.

(1) The existing (pre-development) runoff hydrographs for all watersheds to be included in the planning permit.

(2) The maximum amount of impervious surface, regrading, and altered cover type in each watershed to be included under the planning permit.

(3) Determination of the maximum potential increase in runoff, and need for water quality treatment in runoff from the site according to criteria established in department rules. The applicant may choose to design and submit for review plans showing measures to control stormwater quality and quantity so that the standards of department rules will be met, or may choose to delay submission of some or all of those designs until plans for development in those areas of the parcel are more complete. Adequate stormwater management must be provided for all specified development on the parcel; the department must have approved the specific stormwater management measures for any watershed before any activity under the planning permit begins in that watershed.

C. **Erosion control plan.** A general erosion control plan for the parcel, describing measures to be used to maintain compliance with the standards established at 06-096 CMR 375.5, including but not limited to details of all temporary and permanent erosion control measures to be used at the site, and rates of mulch and seeding appropriate to different times of the year, slopes, and soil conditions.

D. **Solid waste disposal.** A demonstration that the development or off-site utilities have adequate capacity to dispose of the solid waste anticipated to be generated by the development during construction and at full build-out. If solid waste disposal is by an off-site utility, the applicant must submit a letter from the utility stating that it has adequate capacity to handle the maximum volume of solid waste to be sent to the utility at full build-out, presuming full build-out within the year following approval, through at least the next five years, given reasonably anticipated changes in demand on that utility from other sources during that time. If a construction schedule is established as a condition of the permit, an alternate demonstration of adequate capacity may be approved.

E. **Wastewater demonstration.** A demonstration that either the wastewater treatment plant in the area has capacity to handle the maximum volume of wastewater to be generated at full build-out, or that the site soils have the capacity, in the areas proposed for development, to infiltrate the sanitary wastewater to be generated by the parcel at full build-out, without unreasonable adverse impact on surface water quality or groundwater quality. The department may require establishment of setbacks from property boundaries to prevent degradation of groundwater quality on adjacent parcels. If wastewater disposal is by an off-site treatment plant or similar utility, the applicant must submit a letter from the utility stating that it has adequate capacity to handle the maximum volume of wastewater to be generated and discharged to the utility at full build-out, presuming full build-out within the year following approval, through at least the next five years, given reasonably anticipated changes in demand on that utility from other sources during that time. If a construction schedule is established as a condition of the permit, an alternate demonstration of adequate capacity may be approved.

F. **Water supply information.** A demonstration that an existing water supply has adequate capacity to serve the development at full build-out, or that an adequate supply of groundwater or surface water exists on site to supply the development's needs at full build-out, without unreasonable adverse impact on natural resources or either existing or designated uses of groundwater and surface water. If water supply is by an off-site utility, the applicant must submit a letter from the utility stating that it has adequate capacity to supply the maximum volume of water to be required from that utility at full build-out, presuming full build-out within the year following approval, through at least the next five years, given reasonably anticipated changes in demand on that utility from other sources during that time. If a construction schedule is established as a condition of the permit, an alternate demonstration of adequate capacity may be approved.

G. **Groundwater protection plan.** A groundwater protection plan, if the development may handle potential contaminants in excess of normal household quantities. The groundwater protection practices chosen for this plan, as determined to be necessary by the department, may include but are not limited to equipment design, operational procedures, preventive maintenance, construction techniques, personnel training, spill response capabilities, alternative materials or processes, implementation of new technology, modification of facilities or equipment, spill

prevention control and countermeasure plans, best management practices, hazardous waste contingency plans, runoff or infiltration control systems, and siting considerations.

H. Archeological and historic sites information. Evidence that the proposed development will not adversely affect an historic site. The applicant must submit archeological surveys if required by the department.

I. Unusual natural areas information. Evidence that the proposed development will not adversely affect an unusual natural area, as defined in 06-096 CMR 375.12, and a description of appropriate buffers or other protective measures for unusual natural areas identified. The applicant must submit a survey for the presence of unusual natural areas, covering areas of the parcel to be included in the planning permit, if required by the department.

J. Traffic analysis. An analysis of the increase in traffic due to the development at full build-out. A traffic study, if required, must meet the requirements of 06-096 CMR 374, and must demonstrate that traffic in the vicinity of the development will meet the traffic standards of 06-096 CMR 374 at full build-out of the development.

K. Wildlife and fisheries habitat. A plan to fully mitigate detrimental impacts on wildlife and fisheries habitat identified on the map submitted under subsection A of this section.

L. Technical Ability

(1) The applicant shall submit resumes or similar documents detailing the experience and qualifications of full-time, permanent or temporary staff employed or contracted by the applicant who will design, construct, and oversee development. These parties must be responsible for design and implementation. This submission requirement does not apply to temporary workers employed by the applicant for the sole purpose of conducting the physical labor, or to the design of activities based on "off-the-shelf" or other standardized or non-copyrighted designs, or adaptations of designs by staff employed at other facilities owned by the applicant.

(2) In the event there are changes in the staff employed for design and supervision, the applicant must supply resumes or equivalent documents for any staff hired or retained to replace those previously employed as part of the annual report.

4. Prior review. After issuance of a planning permit, but prior to any construction, grading, alteration of cover type, or change to any facility, including change in function or use, the applicant must submit for review and approval plans of a stormwater management system for levels of development up to and including the maximum anticipated development in the watershed, and a specific erosion control plan detailing the measures to be used at the site to meet the requirements of 06-096 CMR 375.5 and 38 MRSA § 420-C. These plans must include information on soil types in the specific area proposed for development, at a mapping class to be determined by the department. No construction may be conducted in an area prior to the department's approval of the stormwater management system for that area.

5. Prior notification. After issuance of the permit, but no later than fifteen working days prior to the start of any construction, grading, alteration of cover type, or change to any facility, including change in function or use, in areas of the parcel licensed under the planning permit must submit to the

department a letter of notification of the activity. This letter must contain a diagram showing the location of the intended project, a description of the function and dimensions of the proposed project, and details of the sequence of construction. The sequence of construction must specifically describe the installation and removal of erosion control measures and procedures for permanent stabilization of the site, and must be included in the plans used for construction.

The department may provide for construction of certain activities of a minor nature, such as installation of septic systems or water supply wells, changes in road placement within an approved right-of-way, changes in utilities routing, or similar activities, without prior notification. The nature of and any restrictions on these activities will be specified in the permit.

6. **Revision of plan.** By no later than December 31 of each year, the applicant shall submit to the department a revised site plan and accompanying narrative, showing all facilities at the site as of December 31 of that year, and specifically identifying any construction and all other activities conducted under the planning permit. If the site plan comprises several plan sheets, or the construction was conducted in only a small area of a much larger parcel, the applicant need only submit plans for those areas within which applicable construction occurred.

7. **Conformance of proposed construction with rules**

   A. **General.** At least every five years, the planning permit must be reviewed for conformance of future construction with department rules in affect at the time of review, and must be amended to conform with department rules at the time of that review, except as provided in (B) through (E) below. The applicant may apply to modify the permit to eliminate the requirement for any or all of the submissions under this section if the development has attained full build-out as described in the permit.

   B. **Threatened and endangered species and significant wildlife habitat.** The applicant shall review the undeveloped portion of the parcel licensed under the planning permit for habitat of threatened and endangered species at least every five years. If any such habitat or species are discovered, the applicant must establish appropriate buffers, or establish other protective measures acceptable to the department, in order to preserve the habitat.

   C. **Unusual natural areas or historic sites.** In the event that unusual natural areas or historic sites are discovered on abutting parcels, and these areas or sites appear to extend onto that area of the parcel licensed under the planning permit, or if such sites are discovered directly within the project area, the department must be notified by the applicant as soon as possible, and prior to disturbance of those areas. The department may require further evaluation of those areas by the applicant, and may require establishment of buffers or other protective measures, if determined to be necessary by the department.

   D. **Traffic.** Any traffic study required by 3(J), above, must be updated at least every five years, in order to determine if land use changes in the vicinity of the development have significantly altered relevant assumptions in the earlier traffic study. The updated study must demonstrate that traffic in the vicinity of the development will meet the traffic standards of 06-096 CMR 374 at full build-out of the development.

   E. **Solid waste, wastewater disposal, and water supply.** If solid waste disposal, wastewater disposal, or water supply are to be provided by off-site utilities, letters confirming the capacity of

the utilities to handle the demand of the development at full build-out must be provided at least every five years.

NOTE: Activities that are regulated under the Natural Resources Protection Act (NRPA) require prior approval pursuant to that law. The applicant with a project constructed over a period of time needs to be aware that the status of some protected natural resources may change. For example, an area may be mapped as, or be discovered to contain, significant wildlife habitat as provided at 38 M.R.S.A. § 480-B(10). Similarly, the location of a stream channel or wetland edge may change.

8. **Modifications.** A planning permit allows the permittee to make changes within the parameters of the permit. Other changes require a modification.

9. **Conditions.** The standard conditions specified in Chapter 372.12 apply, except that the standard condition at Section 12(G) of that chapter only applies if the development is planned to be completed within five years.

   The department may, as a term or condition of approval, establish any reasonable requirement to ensure that the proposed development will proceed in accordance with the Site Law and rules, including periodic review of the yet underdeveloped portions of the project under department rules applicable at the time of review, as provided under Section 7(A).

10. **Inspection.** The department may inspect the site at any time to determine the state of compliance with this section and other applicable rules, and require the applicant to take all measures necessary to correct any noncompliance with those rules.

11. **Severability**. Should any provision of these rules be declared invalid or ineffective by court decision, the decision shall not invalidate any other provision of these rules.

AUTHORITY: 38 M.R.S.A. Section 341-D(1)

EFFECTIVE DATE: July 25, 1997

BASIS STATEMENT

Chapter 380 implements the planning permit which was added to the Site Location of Development Law (Site Law) under Public Law 1995, Section A-12. The rule establishes the criteria applicable to an alternative approach to current licensing procedures. The planning permit will allow approval of development within a specified area and within specific parameters, although the specific nature and extent of development may not be known at the time a permit may be issued. The location and parameters of a development would be required to meet all of the standards of the Site Law.