

SEN. TROY D. JACKSON
VICE-CHAIR

REP. RYAN FECTEAU
CHAIR

EXECUTIVE DIRECTOR
SUZANNE M. GRESSER



130TH MAINE STATE LEGISLATURE
LEGISLATIVE COUNCIL

SEN. NATHAN L. LIBBY
SEN. ELOISE A. VITELLI
SEN. JEFFREY L. TIMBERLAKE
SEN. MATTHEW POULIOT
REP. MICHELLE DUNPHY
REP. RACHEL TALBOT ROSS
REP. KATHLEEN R.J. DILLINGHAM
REP. JOEL STETKIS

MEMORANDUM

TO: Office of Revisor of Statutes

FROM: Suzanne M. Gresser, Executive Director
Legislative Council *SMG*

DATE: August 5, 2022

RE: Resolve for Major Substantive Rules

Please prepare a resolve for the following major substantive rule:

Portions of Chapter 171: Control of Petroleum Storage Facilities, that were provisionally adopted by the Department of Environmental Protection.

Thank you.

SMG/ajh

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August 5, 2022

Jeffrey Crawford, Director
Bureau of Air Quality
Department of Environmental Protection
17 State House Station
Augusta ME 04333-0017

Re: Submission of provisional rules for legislative review

Dear Mr. Crawford:

This letter is to acknowledge our receipt of the major substantive rules provisionally adopted by the Department of Environmental Protection, Bureau of Air Quality and related materials filed pursuant to 5 MRSA §8072, sub-§2. They were received on July 22, 2022. The provisional rules are entitled: "Chapter 171: Control of Petroleum Storage Facilities", and are authorized pursuant to 38 MRSA §590, (see last paragraph).

We have reviewed the filing and have concluded it is sufficiently complete for the purposes of beginning the review process and that the rules were filed within the legislative rule acceptance period as defined in 5 MRSA §8072-A, sub-§2.

A legislative resolve will be prepared and introduced in the House of Representatives to allow for legislative review and action upon the provisionally adopted rules during the First Regular Session of the Legislature. Once the resolve has been referred to the legislative committee having jurisdiction, the committee will review the rules at a meeting called for that purpose. As part of the review the committee may ask agency representatives to appear before it to explain certain provisions of the rules or answer questions. In addition, the committee may request additional information for the agency that may assist the committee in its review.

Notice of Receipt of Provisional Rules

August 5, 2022

Page 2

The committee review process will include application of the review criteria of §8072, sub-§4 to the rules. The committee may hold a public hearing and work sessions on the bill as it does with other pending legislation and your agency will be notified of the committee hearing or meetings as they are scheduled.

The resolve regarding the provisional rules will not contain the text of those rules; you should anticipate receiving requests from the public for copies of the rules if the resolve is advertised for public hearing by the committee.

In the meantime, if you have questions, please contact Dan Tartakoff, Legislative Analyst, in the Office of Policy and Legal Analysis. Dan currently serves as staff to the Joint Standing Committee on Environment and Natural Resources and may be reached at 287-1670.

Sincerely,



Suzanne M. Gresser
Executive Director, Legislative Council

cc: Don Wismer, Rules Coordinator, Secretary of State's Office
Distribution List-Provisional Rules



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

RECEIVED JUL 22 2022



JANET MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

July 21, 2022

Suzanne Gresser, Executive Director
Legislative Council
115 State House Station
Augusta, Maine 04333-0115

JUL 25 2022

RE: Chapter 171: Control of Petroleum Storage Facilities

Dear Ms. Gresser:

The enclosed materials are submitted to initiate legislative review of the above referenced major substantive rules pursuant to Title 5, Section 8072. The Board of Environmental Protection provisionally adopted Chapter 171 on May 5, 2022. On July 7, 2022, the Board also issued a letter to the Committee on Environment and Natural Resources to be transmitted with this submission, copy enclosed. This rule has been filed with the Secretary of State pending review by the legislature. This rulemaking is designated major substantive by 38 M.R.S. § 590(1).

In accordance with Title 5, Section 8072(2) and OPLA Guidance Document, *Items to be Filed in Support of Major Substantive Rules Submitted to the Legislature for Review under the MAPA*, I have enclosed with this letter the following required documentation:

Twenty copies of the following are enclosed:

- Full text of Chapter 171 as provisionally adopted by BEP
- Summary of the provisionally adopted rule
- Statement of the circumstances that require the rule
- Statement of the economic impact of the rule on the State and its residents

Responses to the following inserted in this letter or enclosed as noted:

- Agency contact able to answer legislators' questions on the rule:
Jeffrey Crawford, Director, Bureau of Air Quality
17 State House Station
Augusta, Maine 04333-0017
(207) 242-3414
jeff.s.crawford@maine.gov
- Verification that the rule has been approved as to form and legality by the Attorney General's Office and identification of the member of the AG's staff who reviewed and approved the rule.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

The enclosed MAPA 1 form has been signed by Assistant Attorney General Laura Jensen, attesting that the rule has been approved as to form and legality by the Attorney General.

- Statement, signed by the head of the agency, certifying that the agency has complied with the procedural requirements of the MAPA and any other applicable law in provisionally adopting the rule.

The enclosed MAPA 1 form has been signed by DEP Commissioner Melanie Loyzim, attesting that the rule has been lawfully adopted by the BEP, and has been adopted in compliance with the MAPA.

- Copy of the procedural checklist

A copy of the procedural checklist is enclosed.

- Citation of the statutory authority for adoption of the rule and copy of any federal law or regulation that governs the content of the rule.

This major substantive rule is being promulgated pursuant to 38 M.R.S. § 590(1). A copy of the Fact Sheet is enclosed. No federal law governs this rulemaking.

- Copy of the transcript of the public hearing on the rule.

No transcript has been prepared.

- Copy of any written comments or testimony submitted during agency rulemaking proceedings on the rule.

Copies of written comments received during the Department's rulemaking are enclosed with the Department's Basis Statement and Response to Comments.

If you have any questions regarding these submissions, please contact me by telephone at (207) 287-7842, or via email at mark.t.margerum@maine.gov.

Sincerely,



Mark Margerum
Office of the Commissioner

STATE OF MAINE
BOARD OF ENVIRONMENTAL PROTECTION



JANET T. MILLS
GOVERNOR

Susan M. Lessard, Chair

William F. Hinkel
Executive Analyst

Ruth Ann Burke
Board Clerk

July 7, 2022

Senator Stacy Brenner
Representative Ralph L. Tucker
Committee on Environment and Natural Resources
c/o Legislative Information Office
100 State House Station
Augusta, Maine 04333

**Re: Board of Environmental Protection's recommendation regarding the provisionally adopted
DEP rule Chapter 171**

Dear Senator Brenner, Representative Tucker, and Committee Members:

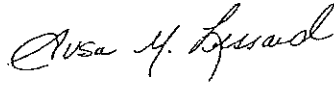
Pursuant to 38 M.R.S. §§ 341-D(1-C) and 341-H, on May 5, 2022, the Board of Environmental Protection, provisionally adopted a new rule, Chapter 171, *Control of Petroleum Storage Facilities*, to be administered by the Department of Environmental Protection. This provisionally adopted rule was developed following passage of L.D. 163, *An Act Concerning the Regulation of Air Emissions at Petroleum Storage Facilities*, which was signed into law by the Governor on June 21, 2021, and codified at 38 M.R.S. § 590.

Section 6(B) of the provisionally adopted Chapter 171 rule incorporates – through a methodology referred to as fenceline monitoring – the air emissions monitoring requirements required by statute. See 38 M.R.S. § 590(1)(A)(7). During the rulemaking process, the Board heard from regulated entities and discussed with Department staff concerns regarding the ability to utilize the collected fenceline monitoring data in a meaningful way at facilities that are proximate to one another. Source apportionment of air emission monitoring results may be difficult when facilities are near each other and/or near other significant sources of air emissions and complicated by the direction of or changes in wind direction during the two-week monitoring cycles.

While the Board strongly supports legislation intended to reduce or evaluate air pollution emissions, the obligation imposed by the new law on the Department and the regulated community may not provide the intended outcome to members of the public seeking clear information about the potential contribution of a single facility on ambient air quality. The Board encourages the Committee to consider these concerns as it conducts its legislative review of the provisionally adopted major substantive Chapter 171 rule.

If the Committee would like to discuss this recommendation, I am available to meet with you at your convenience. I can be reached by contacting Board Executive Analyst William Hinkel at 207-314-1458 or bill.hinkel@maine.gov.

Respectfully,



Susan M. Lessard, Chair
Board of Environmental Protection

cc: Melanie Loyzim, DEP Commissioner
Jeffery Crawford, DEP's Bureau of Air Quality

Rulemaking Cover Sheet

MAPA-1

TO: Secretary of State
ATTN: Administrative Procedure Officer,
State House Station 101, Augusta, Maine 04333.

1. Agency: Department of Environmental Protection
2. Agency umbrella and unit number: 06-096
3. Title of rule: Control of Petroleum Storage Facilities
4. Chapter number assigned to the rule: Chapter 171
5. Date(s)/method(s) of notice: January 3, 2022 on the DEP Rulemaking webpage. January 12, 2022, in the Bangor Daily News, Kennebec Journal, Portland Press Herald, Lewiston Sun Journal, and the Morning Sentinel, and on the Secretary of State's website.
6. Date(s)/place(s) of hearing(s): February 3, 2022, Augusta, Maine.
7. Type: new rule partial amendment(s) of existing rule
 suspension of existing rule repeal of rule emergency rule
 repeal and replace: complete replacement of existing chapter, with former version simultaneously repealed.
8. Name/phone of agency contact person:
Lynn Muzzey
DEP, 17 SHS, Augusta, ME 04333-0017
(207) 287-2229
lynn.muzzey@maine.gov
9. If a major substantive rule under Title 5, c. 375, sub-CII-A, check one of the following
 Provisional adoption Final adoption
(prior to Legislative review)
 emergency adoption of major-substantive rule

10. **Certification Statement:** I, Melanie Loyzim, hereby certify that the attached is a true copy of the rule described above and lawfully, provisionally adopted by the Board of Environmental Protection on May 5, 2022. I further certify that all portions of this rule are adopted in compliance with the requirements of the Maine Administrative Procedure Act.

Signature: Melanie Loyzim
(original signature, personally signed by the head of agency)

Printed name & title: Melanie Loyzim, Commissioner

11. Approved as to form and legality by the Attorney General on 6/1/2022
(date)

Signature: Laura E. Jensen
(original signature, personally signed by an Assistant Attorney General)

Printed Name: Laura E. Jensen

Rulemaking Fact Sheet (5 MRSA §8057-A)

AGENCY: Department of Environmental Protection

NAME, ADDRESS, PHONE NUMBER, EMAIL OF AGENCY CONTACT PERSON:

Lynn Muzzey
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333
(207) 287-2229
lynn.muzzey@maine.gov

CHAPTER NUMBER AND RULE TITLE: Chapter 171: Control of Petroleum Storage Facilities

TYPE OF RULE (*check one*): Routine Technical Major Substantive

STATUTORY AUTHORITY: 38 M.R.S. §§ 585, 585-A, and 590(1)

PUBLIC HEARING: February 3, 2022, 9:00 a.m., Deering Building, Room 101, 90 Blossom Lane,
Augusta

COMMENT DEADLINE: February 18, 2022

PRINCIPAL REASON(S) OR PURPOSE FOR PROPOSING THIS RULE: [*see* §8057-A(1)(A)&(C)]

On June 21, 2021, the governor signed into law L.D. 163, *An Act Concerning the Regulation of Air Emissions at Petroleum Storage Facilities*. This legislation requires the Department to initiate rulemaking to amend its rules to align with the new requirements contained in 38 M.R.S. § 590, subsection 1. The proposed regulation implements the requirements outlined by the legislature.

IS MATERIAL INCORPORATED BY REFERENCE IN THE RULE? X YES NO [§8056(1)(B)]

ANALYSIS AND EXPECTED OPERATION OF THE RULE: [*see* §8057-A(1)(B)&(D)]

This regulation establishes new control, operating, inspection, testing, monitoring, recordkeeping, and reporting requirements for petroleum storage facilities throughout the state. These requirements will become effective six months after final promulgation of the rule and will be incorporated into a facility's air emission license issued pursuant to 06-096 C.M.R. ch. 115, *Major and Minor Source Air Emission License Regulations*, and 06-096 C.M.R. ch. 140, *Part 70 Air Emission License Regulation*.

BRIEF SUMMARY OF RELEVANT INFORMATION CONSIDERED DURING DEVELOPMENT OF THE RULE (including up to 3 primary sources relied upon) [*see* §§8057-A(1)(E) & 8063-B]

Development of this rule included consideration of the findings and recommendations of the Department's report to the Joint Standing Committee on the Environment and Natural Resources, *Measurement and Control of Emissions from Aboveground Petroleum Storage Tanks* (January 1, 2021); federal regulations

containing similar requirements for oil refineries; and a response to a public information request published August 23, 2021.

ESTIMATED FISCAL IMPACT OF THE RULE: [see §8057-A(1)(C)]

The proposed regulation will have a fiscal impact on all petroleum storage facilities, with the degree of impact depending on the type(s) of petroleum product(s) stored. All petroleum storage facilities will be required to conduct quarterly inspections using optical gas imaging equipment. The cameras required to be used typically cost in excess of \$100,000 per unit, and specialized training is required to operate them. Facilities may be able to contract this work to a third party; however, limited availability of contractors and the time sensitivity and weather dependency of the work may make this impractical.

Facilities which operate heated storage tanks (e.g., asphalt or #6 fuel oil) will be required to conduct emissions testing twice per year. These tests are expected to cost \$5,000 - \$10,000 for each event.

Facilities which store petroleum products in internal or external floating roof tanks (e.g., gasoline, crude oil) will be required to contract with a third-party vendor to implement a fence-line monitoring program. The cost of the individual monitors is small. However, the cost to design the integrated monitoring system and install the monitoring stations as well as the required meteorological station is expected to be \$20,000 - \$50,000 per facility, though it is possible that multiple facilities may share a meteorological station and the associated costs if they are located reasonably close together. The annual recurring costs for sampling, laboratory analysis, and reporting is expected to be \$75,000 - \$130,000 per facility.

The Department estimates that two full-time equivalent (FTE) positions will be required to determine facility compliance and administer the requirements of this rule.

FOR EXISTING RULES WITH FISCAL IMPACT OF \$1 MILLION OR MORE, ALSO INCLUDE:

ECONOMIC IMPACT, WHETHER OR NOT QUANTIFIABLE IN MONETARY TERMS:
[see §8057-A(2)(A)]

INDIVIDUALS, MAJOR INTEREST GROUPS AND TYPES OF BUSINESSES AFFECTED
AND HOW THEY WILL BE AFFECTED: [see §8057-A(2)(B)]

BENEFITS OF THE RULE: [see §8057-A(2)(C)]

Note: If necessary, additional pages may be used.

BASIS STATEMENT**06-096 C.M.R. Chapter 171, Control of Petroleum Storage Facilities**

This rule is proposed for provisional adoption to implement Public Law 2021, Chapter 294, *An Act Concerning the Regulation of Air Emissions at Petroleum Storage Facilities*. Section 2 of that law directed the Department to initiate rulemaking to align Department rules with the new requirements contained in 38 M.R.S. § 590(1), which establishes new control, operating, inspection, testing, monitoring, recordkeeping, and reporting requirements for petroleum storage facilities throughout the state including:

- Requiring new distillate tanks to be constructed with an internal floating roof;
- Requiring heated storage tanks be fully insulated to reduce breathing emissions;
- Prohibiting switchloading, which is the uncontrolled loading of distillate into trucks which previously carried gasoline;
- Implementing a quarterly inspection program using optical gas imaging equipment to look for leaks;
- Requiring additional visual and instrumental inspections of tanks with internal floating roofs;
- Testing of emissions from heated tanks twice per year; and
- Implementation of a fenceline monitoring program which requires each facility to deploy passive monitors around their facility that are collected and analyzed every two weeks.

The formal rulemaking process for these major substantive rules began in mid-December, 2021, when the Department presented its proposal to the Board of Environmental Protection (Board), and requested that a public hearing be held on February 3, 2022. During the February 3rd public hearing, the Board heard testimony from the regulated community, interested parties, and the public. Additional comments were received during the written comment period, which closed on February 18, 2022.

The Department received comments on this proposal from 43 interested people and parties during the public comment period. The final proposed rule incorporates a number of suggested changes, including:

- Revising the definition of “leak” to remove an unnecessary option;
- Adding a definition of the term “petroleum storage tank;”
- Shortening the time to commence optical gas imaging (OGI) survey to the first full quarter after Department approval of the OGI leak detection and repair plan;
- Providing for the identification of emission components for which OGI may not be appropriate due to nearby interference or safety concerns;
- Regarding inspections of internal floating roof tanks, removing the requirement to calibrate the monitors with the sample line attached; revising the maximum wind speed allowed to take into account the average wind speed for the local area, and shortening the minimum sample time required; and
- Regarding fenceline monitoring, requiring facilities to measure ethylbenzene, toluene and xylenes in addition to benzene and providing for the ability to use a shorter sampling period with Department approval.

The public comments and the Department’s responses and changes to the proposed rule are provided below. The Department also made several formatting and other minor clarifying changes to the final proposal.

RESPONSE TO COMMENTS

Commenters:

- Lucy Breslin
- Rachel Burger, Abby Huntoon, Dr. Priscilla Skerry, and Roberta Zukerman, Protect South Portland (PSP)
- Sara M. Caldwell and Eugene Weldon, Eurovia Atlantic Coast LLC (Eurovia)
- Sen. Anne Carney (Sen. Carney)
- Peggy Chapman
- Dana Colihan, Community Action Works (CAW)
- Deqa Dhalac, Mayor, City of South Portland (City of SoPo)
- Megan Diver and Charlie Summers, Maine Energy Marketers Association (MEMA)
- Espahbad Dodd, Portland Climate Action Team (PCAT)
- David Falatko
- Maria Fuentes, Maine Better Transportation Association (MBTA)
- Bruce Gerrity, on behalf of Maine Automobile Dealers Association (MADA)
- Christopher E. Gill, Gulf Oil, LLP (Gulf)
- Valerie Goldman
- Meredith Hall
- Joe Harriman, Irving Oil Terminals Inc. (Irving)
- Bracy Hood, H.O. Bouchard (Bouchard)
- Melinda Hull
- Donna Joss
- Avery Yale Kamila, Portland Protectors (PP)
- Tom Keefe and Orion Breen, Global Companies, LLC (Global)
- Damien Lally
- Brittany Liscord
- Jason Littlefield, Sprague Operating Resources LLC (Sprague)
- Matthew Marks, Associated General Contractors of Maine/Maine Aggregate Association (MAA)
- Jack McCrossin, CITGO Petroleum Corporation (CITGO)
- Tom Mikulka
- Rep. Rebecca Millett (Rep. Millett)
- Peter Mills, Maine Turnpike Authority (MTA)
- Ann Morrill
- Keith Ocheski, Buckeye Partners, L.P. (Buckeye)
- David Packard, PK Realty Management LLC (PK Realty)
- Sue Pastore, 350 Maine (350 Maine)
- Edward Reiner
- Mike Rioux, MPR Environmental Compliance (MPR)

Tom Rolfson, POWER Engineers, Inc. (POWER)
 Karen Sanford
 Shane Snowdon, Physicians for Social Responsibility (PSR)
 Mary Sohl
 David Stenstrom
 Louise Tate
 Bruce Taylor
 Sarah Woodbury, Defend Our Health (DOH)

Summary of Comments and Department Responses:

A. General

1. Comment: General Support

(PSP, Sen. Carney, CAW, David Falatko, Meredith Hall, Donna Joss, PK Realty, 350 Maine, Mary Sohl, Louise Tate, Bruce Taylor, and DOH): Commenters expressed general support for the proposed rule stating it was necessary to protect public health and long overdue.

Response: The Department appreciates the commenters' support.

2. Comment: General Opposition

(MEMA, MADA, CITGO, Buckeye): Commenters expressed general concerns that the proposed rule was overly prescriptive, too inflexible, financially punitive, and it may not achieve the general goal of the underlying statute.

Response: The underlying statute, 38 M.R.S. § 590(1), contains specific requirements for new control, operating, inspection, testing, monitoring, recordkeeping, and reporting requirements for petroleum storage facilities throughout the state. The underlying statute states (in relevant part):

§ 590. Licensing

1. License required; rules. After ambient air quality standards and emission standards have been established within a region, the board may by rule provide that a person may not operate, maintain or modify in that region any air contamination source or emit any air contaminants in that region without an air emission license from the department.

A. As a condition of licensure under this chapter for any petroleum storage facility with an aboveground petroleum storage tank, the facility shall:

(1) Ensure that any new aboveground petroleum storage tank with a storage capacity greater than 39,000 gallons used for the storage of distillate fuel products is equipped with a floating roof;

- (2) *Maintain a record of any additives or materials added to any heated, aboveground petroleum storage tank;*
- (3) *Ensure that any heated, fixed-roof aboveground petroleum storage tank is fully insulated in a manner that minimizes temperature fluctuation and resulting breathing losses and that the temperature of the petroleum product stored in the tank is continuously monitored;*
- (4) *Implement forward-looking infrared technology for the monitoring of vapor leaks around any aboveground petroleum storage tank with a storage capacity greater than 39,000 gallons, as well as around the piping and fittings associated with the tank. The facility shall conduct such monitoring on at least a quarterly basis, and the results of that monitoring and any resulting repairs made as a result of detected leaks must be properly documented and provided to the department upon request;*
- (5) *Collect site-specific air emission test data semiannually during the most active time of operations for any existing, new or modified heated, aboveground petroleum storage tank with a storage capacity greater than 39,000 gallons, and the collected data must be used to establish site-specific air emission factors. A facility that operates in a similar manner multiple tanks of the same construction storing the same product may, upon approval by the department, collect site-specific air emission test data from a representative tank in lieu of testing all similarly operating tanks. The test data collected by the facility must be used for the purposes of annual air emissions reporting and by the department when determining compliance with licensed air emission limits;*
- (6) *Conduct on a monthly basis a visual inspection of the internal, floating roof of any aboveground petroleum storage tank equipped with such a roof; conduct on a monthly basis an external leak inspection of that roof using photo ionization detection technology or flame ionization detection technology; and conduct a complete inspection of the cover and seal associated with that roof every 5 years and each time the tank is emptied and degassed; and*
- (7) *If the facility has an aboveground petroleum storage tank with a storage capacity greater than 39,000 gallons that is equipped with an external or internal floating roof, implement a fenceline monitoring program, designed and operated by a qualified, independent 3rd-party entity, which must provide continuous emission monitoring consistent with the requirements of the United States Environmental Protection Agency's Method 325A, Volatile Organic Compounds from Fugitive and Area Sources: Sampler Deployment and VOC Sample Collection, and Method 325B, Volatile Organic Compounds from Fugitive and Area Sources: Sampler Preparation and Analysis. The facility shall provide to the department a description of its fenceline*

DEPARTMENT OF ENVIRONMENTAL PROTECTION

monitoring program and a copy of all data collected under the program, which the department shall make available on its publicly accessible website.

- B. A facility required to be licensed under this chapter may not load distillate fuel into a cargo tank that carried gasoline as its most recent load unless the facility is equipped with and uses a collection and control system for air emissions of volatile organic compounds.*
- C. As a condition of licensure under this chapter for any new or modified bulk gasoline terminal, the terminal shall implement best practical treatment for emissions associated with the loading, unloading and storage of gasoline at the terminal that is equivalent or substantially similar to applicable best available control technology requirements implemented by the United States Environmental Protection Agency pursuant to the federal Clean Air Act.*
- D. At least once every 5 years, the board shall evaluate and, if determined necessary, update the best practical treatment requirements applicable to licensed petroleum storage facilities with aboveground petroleum storage tanks. In evaluating the best practical treatment requirements pursuant to this paragraph, the board shall consider best practical treatment requirements for aboveground petroleum storage tanks implemented by other New England states and applicable best available control technology requirements implemented by the United States Environmental Protection Agency pursuant to the federal Clean Air Act.*

As used in this subsection, "petroleum storage facility" means a storage facility that receives petroleum products from refineries primarily by pipeline, ship or barge and delivers those products to bulk plants or to commercial or retail accounts primarily by tank truck.

The Department does not have the authority to be less stringent or prescriptive than the underlying statute.

No changes were made in response to this comment.

3. Comment: List of Pollutants

(Lucy Breslin and Peggy Chapman): Commenters state that petroleum distillates and residual oils need to be added to the list of pollutants.

Response: The term "regulated pollutants" are defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Regulated pollutants are specific compounds (e.g., sulfur dioxide) or a defined class of compounds (e.g., volatile organic compounds or hazardous air pollutants). Specific petroleum products are not regulated pollutants. However, when petroleum products evaporate they may emit various hazardous air pollutants (HAP) or volatile organic compounds (VOC) which are regulated pollutants.

The proposed rule applies to licensed petroleum storage facilities that manage liquid petroleum products, as defined in the proposed rule, which includes both distillate and residual oils.

No changes were made in response to this comment.

4. Comment: Limit Applicability to Certain Petroleum Products

(CITGO): Chapter 171 applies to all petroleum products (gasoline, distillate oils, residual oils) without distinction. Commenter suggests that Chapter 171 include additional clarity to ensure that the monitoring or other requirements contained in the rule will reflect that emissions and the methods to limit such emissions vary widely among different petroleum products.

Response: The Department does not have the authority to be less stringent or prescriptive than the underlying statute, 38 M.R.S. § 590(1), which states that the proposed requirements are a condition of licensure for any petroleum storage facility with an aboveground petroleum storage tank. In some cases, the underlying statute limits a requirement to a specific type of tank, e.g., temperature monitoring is only required for heated, fixed-roof tanks. However, in cases where the underlying statute specifies that the requirement applies to “any” aboveground petroleum storage tank or “any” facility with an above ground petroleum storage tank, the Department does not have the authority to limit the applicability to certain types of tanks or products beyond what is already provided for in statute. (See also the Department’s response to Comment A.2.)

No changes were made in response to this comment.

5. Comment: Limit Applicability Geographically

(Buckeye): Commenter states that the proposed rule was developed solely to address the ongoing concerns of local citizen groups regarding the existing petroleum terminals operating in the South Portland area, yet the burdensome requirements of this proposed regulation apply to all petroleum terminals in the State, regardless of location. Commenter requests that the DEP consider limiting the requirements of this proposed rule to terminals located in the portions of the state included in the Ozone Transport Region (OTR).

Commenter states that extensive ambient sampling for VOC and HAP has been conducted in South Portland by the Maine DEP since 2019 and quotes the *South Portland / Portland 24 Hour Volatile Organic Compounds Air Monitoring Results Analysis and Summary Report* dated March 20, 2020, prepared by the Maine Center for Disease Control, “Regarding short-term exposure levels, to date no 24-hour sample result at any sample location for the measured VOCs exceeded an acute MRL. For long-term exposures, the time-weighted cumulative average for most VOCs (including benzene) is well below the corresponding AAG.” Commenter states that the proposed benzene monitoring program does not address any identified problem.

The commenter questions why fenceline monitoring would be required for less industrial areas such as Bangor and Searsport. Commenter states that the OGI/instrument-based fugitive leak program will result in an effective on-site monitoring program to reduce fugitive emissions and the requirement for fenceline monitoring is redundant, will result in very high annual costs to affected terminals, and will bring no additional environmental benefit.

(Irving): Commenter states that more flexibility would help reduce the redundancy of this regulation. Commenter states that the prescriptive nature of the proposed regulation poses considerable challenges for facilities in rural jurisdictions and have operational considerations including multiple (non-contiguous) tank farms and other nearby emissions sources.

Commenter states that a one-size-fits-all approach will result in little improvement to air quality in this region while imposing significant implementation costs and challenges, and that terminals are already highly regulated through State-issued Air Emission Licenses with specific requirements that pertain to the operating conditions of the site and local airsheds.

Commenter urges the DEP to limit the applicability of Chapter 171 to petroleum storage facilities within Cumberland County, or to those under the jurisdiction of DEP's Southern Maine Regional Office.

Response: Without regard to geographic location or the rural or urban character of a location, the underlying statute, 38 M.R.S. § 590(1), states that the proposed requirements are a condition of licensure for any petroleum storage facility with an aboveground petroleum storage tank. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. Therefore, the rule must apply statewide. (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

6. Comment: Redundancy

(Buckeye): Commenter states that the proposed rule is unnecessarily redundant and will not result in any increased environmental benefit. For example, the proposed monthly lower explosive limit (LEL) measurements for internal floating roof (IFR) tanks are intended to identify fugitive leaks in the IFR seals or fittings, thereby making it unnecessary to conduct an internal inspection every five years. In addition, the proposed Optical Gas Imaging (OGI) fugitive leak inspection program will detect fugitive leaks and make the proposed Method 325A fenceline monitoring program unnecessary and redundant. Commenter states that these redundancies will cause unnecessary operational and financial hardship with no environmental benefit.

(MEMA): Commenter states that many of the provisions are either unnecessary or duplicative. Commenter states that the Department is already monitoring air quality across the state and has the authority to address potential air quality issues. Commenter

states that the regulation requires the Department and businesses to spend time and resources on areas and actions that are not supported by science as being the most beneficial.

(MTA): Commenter states that the Department should avoid unnecessarily frequent or redundant testing/monitoring requirements that don't give new or useful data.

Response: The Department does not have the authority to be less stringent or prescriptive than the underlying statute, 38 M.R.S. § 590(1). The examples given are all addressed specifically in the statute and therefore required to be included in the rule. (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

7. Comment: The Rule is Overly Prescriptive

(Buckeye): Commenter states that the proposed rule is overly prescriptive and does not allow for alternative programs. Commenter states that the rule should include provisions to allow Department approval of alternative inspection, testing, and monitoring plans, such as are allowed under Section 6(C) of the draft Chapter 170 rule.

Response: The underlying statute, 38 M.R.S. § 590(1), does not allow flexibility in the inspection and monitoring requirements for aboveground storage tanks greater than 39,000 gallons capacity. Although the Department attempts to provide for flexibility when possible, the proposed rule cannot be less stringent or prescriptive than the underlying statute. (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

8. Comment: Economic Impact

(Buckeye): Commenter states that the rule will cause an undue hardship due to its substantial economic impact. Commenter further states that a lack of qualified third-party contractors may prevent facilities from meeting the requirements. Commenter estimates its up-front capital cost at more than \$200,000, and states that annual recurring costs will likely exceed \$175,000 for third party services related to fenceline monitoring and other required monitoring. Commenter states that due to the redundancy of the regulations, a large portion of these costs will not result in any reduction of emissions or other environmental benefit.

(Irving): Commenter states that purchasing OGI technology will likely cost \$100,000 per site, not including training costs and costs associated with development of a robust VOC monitoring program (i.e., equipment-specific training, development of written procedures, equipment calibration, and periodic auditing). Commenter states that demand and weather conditions may lead to a lack of available qualified contractors in a given quarter.

(MADA): Commenter states that the proposed rule will substantially increase the cost of operating Maine petroleum terminals that store asphalt and is likely to result in increased costs to consumers of asphalt.

(Bouchard, MAA, and MBTA): Commenters state the proposed rule will drive up costs.

Response: Although the Department recognizes there may be significant costs associated with compliance with the proposed rule, the underlying statute, 38 M.R.S. § 590(1), does not allow for consideration of cost of implementation as a mitigating factor in applying its requirements. The proposed rule cannot be less stringent or prescriptive than the underlying statute. The testing, monitoring, and inspection methods in the statute are required to be included in the rule. (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

B. Section 2: Definitions

1. Comment: Definition of Leak (1)

(City of SoPo): Commenter states that the definition of leak in the proposed rule (Section 2(J)) should have a lower threshold than the proposed limit of a PID reading of 500 ppmv or higher.

Response: The Department looked to existing regulations for similar equipment and types of emissions to establish the threshold level for a leak. EPA has several regulations applicable to the oil and gas sector and other similar industries that include leak detection and repair (LDAR) programs. These regulations generally fall into two categories:

- New Source Performance Standards (NSPS) in 40 C.F.R. Part 60 that address VOC emissions and apply to stationary sources that commence construction, modification, or reconstruction after the date of the individual NSPS regulation.
- National Emission Standards for Hazardous Air Pollutants (NESHAP) in 40 C.F.R. Part 63 that address HAP emissions from both new and existing stationary sources.

Most NSPS use a leak definition of 10,000 ppmv. NESHAPs typically use a definition between 500 ppmv and 1,000 ppmv. By selecting a threshold of 500 ppmv the Department is using the most conservative (i.e., lowest) threshold currently used in federal LDAR programs.

No changes were made in response to this comment.

2. Comment: Definition of Leak (2)

(David Falatko): Commenter states that the definition of leak or a vapor-tight condition used in this rule should be the same as the definition in the proposed Chapter 170 rule (Sections 3(J) and 3(K)). Commenter states that the other methods currently described in

the proposed rule Chapter 171 should only be used as the first screening step for the initial detection, and only allowed as a basis for determining there is not a leak when vapors are less than 500 ppmv.

Section 2(J) describes five different methods for determining the presence of a leak, ranging from an OGI reading of 500 ppmv or greater to 100% of the LEL. Commenter states that all of the methods as described could determine the presence of a leak, but in some cases, the method may not be sensitive enough to measure a leak. Commenter states that due to the lack of sensitivity of other methods, a threshold of 500 ppmv measured by EPA method 21 should be the defining criterion.

Response: The Department agrees with the commenter that including a reading of 100% LEL in the definition of Leak is unnecessary. The Department has therefore deleted Section 2(J)(2), which allowed a reading of 100% LEL as a determining factor, as well as the option to use LEL readings in Section 5(A)(5).

The Department's inclusion of the following subparagraph, now renumbered to 2(J)(2), i.e., 25% LEL within 3 feet of an internal floating roof, is being retained based on recommendations from EPA to use this standard for inspections of internal floating roofs as addressed in Section 5(B)(2).

3. Comment: Definition of Leak (3)

(CITGO): Commenter states that the definition of leak in Section 2(J) implies that emissions allowed under existing air licenses would be classified as leaks, and requests that such emissions be specifically exempted from regulation under this rule.

(Global): Commenter requests that the definition of leak in the proposed rule be modified to state that permitted emissions are not leaks.

Response: The definition of leak in the proposed rule specifies that the emissions must be both unintentional and uncontrolled. Licensed emissions are not "unintentional and uncontrolled" but rather expected emissions.

Additionally, to be considered a leak, one or more of the four additional conditions listed in the modified definition must be met. The term leak is only used in two parts of the proposed rule, when conducting inspections of internal floating roof tanks and inspections using OGI.

The types of inspections performed on internal floating roof tanks (visual and PID/LEL) will not trigger any of the conditions listed in the definition unless a leak that meets the definition in the proposed rule is present.

Inspections using OGI are performed on fugitive emissions components, which is defined in Section 2(F) of the proposed rule as follows (emphasis added).

“Fugitive emissions component” means any component that may emit fugitive emissions of volatile organic compounds (VOC) including valves, connectors, pressure relief devices, open-ended lines, flanges, covers, instruments, and meters. Devices that vent as part of normal operations (e.g., passive vents on fixed roof tanks) are not fugitive emissions components.

The permitted emissions points referenced in the comments are exempt under this definition.

No changes were made in response to this comment.

4. Comment: Definition of Leak (4)

(CITGO): Commenter states that due to the potential for false positive leak indications due to interference from steam, heat sources and various other reasons, the definition of leak in the proposed rule should be based on instrument readings or should be clarified to state that once emissions are below an instrument-verified threshold, a leak is considered repaired.

Response: The proposed rule already defines a leak based on quantifiable instrument readings. In accordance with the definition of leak in Section 2(J)(5) and the procedures outlined in Section 5(A)(5), the observation of visible emissions using OGI is not considered a leak unless the presence of a leak is confirmed using photo ionization detection (PID) technology or flame ionization detection (FID) technology.

No changes were made in response to this comment.

C. Section 5(A): Optical Gas Imaging

1. Comment: Implementation Timeline Too Long

(City of SoPo): Commenter states that a period of three months should be adequate for affected entities to acquire equipment and initiate inspection surveys.

Response: The proposed rule has been revised to require quarterly OGI inspections to begin in the first full quarter following the Department’s approval of the OGI leak detection and repair plan but no later than the third full calendar quarter from the effective date of the rule.

The Department’s implementation schedule requires owners or operators to submit an OGI leak detection and repair plan within 60 days of the effective date of the rule. This period is appropriate because there must be sufficient time after the final adoption of this rule for regulated entities to contract for goods and services (i.e., purchase an OGI camera or enter into a contract with a third-party), train staff, and prepare and submit to the Department an OGI leak detection and repair plan.

The time allowed between submittal of the OGI leak detection and repair plan and commencement of inspections is to provide the Department with time to review all plans submitted and work out any points of confusion or disagreement. Since this type of monitoring is new to the Department as well as to affected facilities, the Department cannot predict how long it will take to review the plans or foresee challenges that may arise. All plans for facilities statewide will be due within 60 days of the effective date of the proposed rule, and Department staff will be tasked with reviewing them all at once. This additional work is expected to take several months to complete. However, the revision described above allows the timeline to commence OGI inspections to be pulled forward (i.e., shortened) if possible, but in no case will it be extended beyond what was originally proposed.

2. Comment: Implementation Timeline Too Short

(CITGO): Commenter states that due to the cost of equipment and the need to potentially retain third party contractors to prepare and implement an OGI plan, the inspections required in Section 5(A)(1) should begin one year after the effective date of the proposed rule, and the timing for submittal of an OGI plan required in Section 5(A)(3) should be extended to 120 days after the effective date.

(Irving): Commenter states that due to the cost of equipment and the potential shortage of qualified contractors as all facilities in Maine attempt to implement these programs simultaneously, the required start date for inspections should be at least 18 months from the effective date of the rule. Commenter also requests additional unspecified monitoring details.

Response: The proposed rule provides facilities the option to conduct OGI inspections either by contracting with a qualified, independent, third-party entity or by purchasing the equipment and training facility staff to perform the inspections.

Based on discussion with a regional vendor, the expected lead time for procurement of an OGI camera is 4-6 weeks, and training staff to reasonable proficiency may take another 2-3 weeks.

Although the Department is still in the rulemaking process, the requirement to use forward-looking infrared technology (i.e., OGI) on a quarterly basis to monitor for leaks is clearly included in the underlying statute. Because they are elements of a statute enacted in 2021, facilities can reasonably anticipate these requirements going into effect and should not wait until final approval of the rule to begin planning for capital costs or to begin discussions with potential contractors.

No changes were made in response to this comment.

3. Comment: Limit Applicability to Vapor/Light Liquids

(Buckeye): Commenter states that terminals that store gasoline are already required to have a monthly leak detection program in accordance with federal regulations. Commenter further states that OGI monitoring for low volatility products such as distillate and residual fuels is not effective and will not result in a measurable environmental benefit, and that therefore OGI and LEL requirements should only apply to equipment handling vapor or light liquid as defined in 40 C.F.R. Part 63, Subpart TT.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that facilities must implement inspections using forward-looking infrared technology (i.e., optical gas imaging) to monitor for leaks around “any” aboveground petroleum storage tank greater than 39,000 gallons as well as around the piping and fittings associated with the tank. The Department does not have the authority to be less stringent or prescriptive than the underlying statute.

No changes were made in response to this comment.

4. Comment: Applicability to Distillate Tanks

(Irving): Commenter states that it is unclear as to whether OGI will apply to tanks, fittings, valves, and piping in distillate service.

Response: The underlying statute, 38 M.R.S. § 590(1), uses the term “petroleum storage tank” to refer to tanks that store distillate fuel products. The Department therefore interprets the statute to mean that the term “petroleum storage tank” refers to tanks in distillate service. The Department has added a definition of the term “petroleum storage tank” to the proposed rule for clarity in response to this comment.

5. Comment: Clarify What Is Not Part of OGI Inspections

(Buckeye): Commenter states that permitted tank emission points (i.e., scoop vents on IFRs and conservation/exhaust vents on fixed roof tanks) should not be part of the OGI inspection, as they are permitted emission points where normal breathing and working losses occur daily and not a source of leaks. Commenter requests that the leak detection monitoring method for storage tanks be limited to the through the hatch LEL measurements required in proposed Section 5(B)(2).

(CITGO): Commenter states that Section 5(A)(4) recognizes that some fugitive emissions components may be designated as unsafe-to-monitor, which is an accurate depiction of tanks with shell vents located 40 to 50 feet above the ground. In addition, an OGI instrument may “see” a permitted emission from the tank vent. Commenter states that the proposed rule is not clear as to the exclusion of permitted emissions that are not leaks as defined.

Response: Pursuant to Section 5(A)(1) of the proposed rule, the OGI inspection must include “each non-exempt tank and facility fugitive emissions component.” The term “fugitive emissions component” is defined in Section 2(F) as follows (emphasis added):

“Fugitive emissions component” means any component that may emit fugitive emissions of volatile organic compounds (VOC) including valves, connectors, pressure relief devices, open-ended lines, flanges, covers, instruments, and meters. Devices that vent as part of normal operations (e.g., passive vents on fixed roof tanks) are not fugitive emissions components.

The vents the commenters refer to are exempt from this definition.

No changes were made in response to this comment.

6. Comment: Limit Inspection to Diked Containment Area

(Irving): Commenter suggests that the use of OGI in leak detection and repair be limited to equipment and fittings that are not permitted emission points and that are located within the diked containment areas of the subject tank(s).

Response: The underlying statute, 38 M.R.S. § 590(1), requires OGI monitoring of any petroleum storage tank “as well as around the piping and fittings associated with the tank.” The underlying statute does not specify areas within a petroleum storage facility exempt from OGI monitoring requirements; thus, this rule does not include any such exemptions.

No changes were made in response to this comment.

7. Comment: Different Approach for Asphalt

(Eurovia): Commenter states that a visual inspection of asphalt tanks and associated piping as required by federal SPCC regulations (40 C.F.R. 112) should be sufficient to minimize vapor leaks. Commenter further states that OGI equipment is not designed for use with asphalt storage, and therefore asphalt storage tanks should be exempt from the requirement for OGI inspections. Commenter suggests inspections using EPA Method 9 would allow employees and Department staff to monitor facilities for compliance adequately.

Response: Pipes, valves, and other fittings handling asphalt and other residual oils are unlikely to have vapor leaks unless the equipment is visibly leaking product, because the leaking asphalt is likely to solidify and heal the leak. Also, as described earlier in the response to Comment B.3, passive vents from fixed roof tanks are not fugitive emissions components, and emissions from these tank vents are not considered leaks. Therefore, OGI inspections at facilities that store only asphalt may have limited usefulness in identifying leaks beyond what can be accomplished with traditional inspections that use sight, sound, and smell.

Nevertheless, the underlying statute, 38 M.R.S. § 590(1), specifies that facilities must implement inspections using forward-looking infrared technology (i.e., optical gas imaging) to monitor for leaks around “any” aboveground petroleum storage tank greater than 39,000 gallons as well as around the piping and fittings associated with the tank. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department’s response to Comment A.2.)

No changes were made in response to this comment.

8. Comment: Requirements are Redundant and Excessive

(Gulf): Commenter states that the quarterly OGI inspections are redundant and excessive given the multiple daily inspections required by existing regulations and industry practice.

(Irving): Commenter states that requirements for inspections using OGI, FID, or PID, fenceline monitoring, and heated tank emission testing are redundant.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that facilities must implement inspections using forward-looking infrared technology (i.e., OGI), and that the facility must conduct such monitoring on at least a quarterly basis. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department’s response to Comment A.2.)

No changes were made in response to this comment.

9. Comment: Monitoring Frequency

(Buckeye): Commenter proposes allowing inspections at different intervals based on the type of component being inspected and the likelihood that it will leak, or reducing the frequency of inspections based on the results of the monitoring program for components less likely to leak (e.g., piping connectors). Commenter suggests this would be consistent with existing Federal regulations.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that facilities must implement inspections using forward-looking infrared technology (i.e., OGI), and that the facility must conduct such monitoring on at least a quarterly basis. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department’s response to Comment A.2.)

No changes were made in response to this comment.

10. Comment: Use of Other Methods In Lieu of OGI

(Buckeye): Commenter states that there is limited availability of qualified OGI contractors, and that OGI is a qualitative approach that does not give definitive results. Commenter recommends allowing EPA Method 21 as an acceptable alternative method to conduct leak inspections.

(Global): Commenter states that the rule should allow use of an instrument-based program as an alternative to an OGI program and should be specifically allowed as a means to confirm that a leak exists or has been repaired.

(Gulf): Commenter states that since the use of PID, FID or LEL is necessary to confirm the presence of a leak discovered using OGI observations, those alternate technologies should be considered sufficient for emission monitoring.

(Irving): Commenter states that the use of OGI in leak detection and repair should be limited to equipment and fittings that are in gasoline or ethanol service and that OGI can be useful for identifying leaks but it should be combined with other methods, such as EPA Method 21 and sight, sound, and smell.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that facilities must implement inspections using forward-looking infrared technology (i.e., OGI). The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department's response to Comment A.2.)

The Department recognizes that OGI is a qualitative inspection tool, meaning the equipment can detect the potential presence of vapors but cannot quantify the amount of any escaping VOC or HAP. The proposed rule requires that any leaks identified by OGI inspections be repaired. However, since OGI does not quantify emissions, the proposed rule allows facilities to use other methods to quantify emissions for the purposes of determining whether any detected emissions exceed the threshold to be considered a leak that would trigger the timeline for repair. Alternatively, facilities may assume any visible emissions observed during the OGI inspections are leaks, which must then be repaired in the specified timeframe.

No changes were made in response to this comment.

11. Comment: Use of Other Methods in Conjunction with OGI

(Global): Commenter states that the rule should allow for the use of an instrument if portions of the OGI survey cannot be completed due to interference from wind, overcast conditions, precipitation, or operational conditions such as steam and heat sources.

Response: The Department agrees that some fugitive emissions components may not be capable of being surveyed using OGI due to interference such as steam or nearby heat sources. The Department has therefore amended Section 5(A)(4) to require the identification of such components and allow for alternative inspection methods.

12. Comment: Site-Specific Protocol

(Buckeye): Commenter states that the proposed OGI program is based on the protocol in 40 C.F.R. Part 60, Subpart OOOOa, which is designed for situations where methane emissions from products with high vapor pressures are a significant concern, such as the crude oil and natural gas industry. Commenter suggests that the rule should allow each

company to develop a site-specific OGI or instrument-based monitoring protocol for each facility and submit the protocol for Department approval.

Response: Each facility must prepare and submit a site-specific OGI leak detection and repair plan to the Department in accordance with Section 5(A)(3) of the proposed rule. There is no option to propose some other type of instrument-based monitoring plan because the Department does not have the authority to be less stringent or prescriptive than the underlying statute. The underlying statute, 38 M.R.S. § 590(1), specifies that facilities must implement inspections using forward-looking infrared technology (i.e., OGI). (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

13. Comment: Base Procedures on Manufacturer's Recommendations

(CITGO): Commenter states that Sections 5(A)(3)(d) and (e) of the proposed rule should recognize that manufacturer specifications should guide a facility's determination of the proper distance and wind speed considerations for effective use of OGI.

Response: The Department expects that the facility will develop the OGI leak detection and repair plan required by Section 5(A)(3) of the proposed rule in accordance with recommendations from the manufacturer or other trained experts in the field. The Department anticipates that the procedures referenced in Sections 5(A)(3)(d) and (e) will rely heavily on manufacturer's recommendations. However, the Department also wishes to maintain the flexibility necessary to consider and approve alternative procedures on a case-by-case basis if warranted.

No changes were made in response to this comment.

14. Comment: Leak Considered Repaired

(CITGO): Commenter states that because OGI technology cannot quantify emissions, and because false positive readings can occur due to interference from various sources, Section 5(A)(5) of the proposed rule should be revised to allow for confirmation of leak repairs using either instrument testing or OGI.

(Global): Commenter states that because of the anticipated need to use third-party consultants to conduct OGI testing to confirm completion of leak repairs, and the anticipated limited availability of qualified third-party consultants, the rule should allow the use of the other instrument-based leak detection methods described in Section 2(J) to confirm that a leak has been repaired.

Response: Whether a leak exists after repair should be determined on the same basis as the initial determination of a leak's existence. The Department has revised Section 5(A)(5) to clarify that the leak is considered repaired when the OGI equipment shows no indication of visible emissions or there is no longer any indication of a leak as that term is defined in the proposed regulation.

15. Comment: Clarity in Using PID/FID with OGI

(Irving): Commenter states that the proposed rule does not provide details on the testing methodologies and the documentation required to prove compliance, and requests clarification of the requirements regarding use of PID/FID and OGI.

Response: When visible emissions are observed using OGI, Section 5(A)(5) of the proposed rule requires the owner or operator to either assume that a leak is present or confirm whether a leak exists by using PID or FID technology. The definition of “leak” in the proposed rule specifies the use of 40 C.F.R. Part 60, Appendix A, Method 21.

No changes were made in response to this comment.

D. Section 5(B): Internal Floating Roof Tank Inspections**1. Comment: Requirements are Redundant and Excessive**

(Gulf): Commenter states that monthly inspections of IFRs using PID or LEL technology is redundant given the existing requirements for regular tank gauging, inspections, and monitoring.

(Irving): Commenter states that the IFR inspection requirements in the rule are redundant, as the IFR cover and seal inspection requirements specified in the terminal’s Air Emission license, and other monitoring requirements contained in the proposed rule are already used to identify any issues with the covers and seals on a more frequent basis.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that monthly inspections be performed on the roof of internal floating roof tanks using either photo ionization detection (PID) technology or flame ionization detection (FID) technology. The Department considers an LEL meter to be a type of PID. The Department did not include FIDs as an option in the proposed rule due to safety concerns. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department’s response to Comment A.2.)

No changes were made in response to this comment.

2. Comment: Limit Applicability to Gasoline

(Buckeye): Commenter states that LEL monitoring for IFR tanks storing distillate products is not an effective method to determine defects in the IFR, and therefore instrument inspections requiring LEL readings should only be applicable to IFR tanks storing gasoline or other high volatility liquids.

(Irving): Commenter states that an enhanced in-service cover and seal inspection program that is aligned with a facility’s Air Emission License and that only applies to tanks with IFRs storing gasoline or ethanol, and not tanks with IFRs in distillate fuel service, would be a better option.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that monthly inspections be performed on the roof of internal floating roof tanks using either photo ionization detection (PID) technology or flame ionization detection (FID) technology. The Department considers an LEL meter to be a type of PID. The Department did not include FIDs as an option in the proposed rule due to safety concerns. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

3. Comment: Limit Applicability to Regulated Tanks

(Global and Sprague): Commenters state that Section 5(B) of the proposed rule should be clarified by restricting required inspections to regulated IFRs.

Response: The Department agrees with the comment and has therefore added the term "non-exempt" to Section 5(B) for clarity and consistency.

4. Comment: Calibration with Sample Line Attached

(Global): Commenter states that inclusion of the sample tubing in the calibration process in Section 5(B)(2) of the proposed rule could affect the calibration of the unit, contaminate the results, and make it infeasible to use a centralized station that charges and calibrates the meter when not in use.

(Sprague): Commenter states that there is no technical reason to calibrate with sampling tube installed and that industry standard calibration equipment does not allow calibration with a long sampling tube in place.

Response: The Department agrees that performing the calibration with the sample line attached is unnecessary and could potentially adulterate the sample during the collection process. The Department has therefore removed this requirement from the proposed regulation.

5. Comment: Wind Speed Requirement

(Buckeye): Commenter states that restricting monitoring to wind conditions of less than five miles per hour (mph) is potentially unachievable in coastal locations like South Portland and Searsport. Commenter suggests that LEL monitoring should be restricted to periods when the wind speed is less than 10 mph for the facility location, with at least one reading every six months being conducted when winds are less than five mph.

(CITGO): Commenter states that according to NOAA Climatic Wind Data, the mean wind speed for Portland, Maine is approximately nine mph, and that the proposed rule should allow sampling under wind conditions five mph over average speed for the location, as a more achievable limit.

(Global): Commenter states that since the average wind speed in the Portland area is well above five mph, the proposed rule should be modified to change the maximum wind

speed from five mph or less to an average windspeed of 20 miles per hour or less. Commenter further states that the requirements should be expressed as an average wind speed rather than an instantaneous wind speed. Commenter requests that the proposed rule allow flexibility to complete inspections and take samples under alternate conditions such as higher winds, and should not penalize a facility if inspections are interrupted due to adverse weather conditions.

(Irving): Commenter states that since the average wind speed is approximately 12 mph in the Bangor area, a maximum wind speed of 15 mph for testing makes more sense than a five mph limit.

(Sprague): Commenter states that five mph is lower than the average wind speed in most Maine coastal towns, and therefore maximum wind speed for testing should be based on monthly average wind speeds or allow for some other flexibility.

Response: The Department agrees that the requirement to limit inspections to periods when the wind speed is less than five mph is unreasonable because the vast majority of facilities are located either along the coast or river channel where average wind speeds exceed this level.

The Department has therefore revised the proposed rule to limit inspections to periods when the wind speed is no more than five mph above the average wind speed for the facility's location based on NOAA climatic wind data.

6. Comment: Sampling Duration

(Buckeye): Commenter states that it is unsafe for personnel to be on a tank roof for long periods in certain weather conditions, especially during winter months. Commenter requests the sampling duration be reduced to 10 minutes after the line purge is complete, or allow the Department to approve site-specific LEL monitoring plans with alternative sampling duration requirements.

(CITGO): Commenter states that the 35-minute sampling requirement in Section 5(B)(2)(f) of the proposed rule is arbitrary and unjustified, and recommends replacing the time limit with a requirement for "stable" LEL readings of no more than five minutes in duration.

(Global): Commenter states that a 35-minute sampling period is excessive and that a stable reading obtained after the initial five minutes of monitoring should be considered a valid measurement under the proposed rule. Commenter states that a 35-minute sampling period per tank would present an unnecessary risk to personnel conducting the monitoring as it would require them to spend hours or days at elevated heights. Commenter suggests that at a minimum, the proposed rule should allow the Department to approve an alternative minimum monitoring period.

(Irving and Sprague): Commenters state that a 35-minute sampling time is too long, and recommends that the proposed rule require that monitoring equipment be operated in accordance with the manufacturer's requirements for the specific type of equipment.

Response: The Department agrees that the requirement to conduct readings for a minimum of 35 minutes may be excessive and is unnecessary for collection of an appropriate sample.

The Department has therefore revised the proposed rule to require readings to be conducted for a minimum of five minutes after the sample line purge is complete or in accordance with manufacturer's recommendations, whichever is longer.

7. Comment: Five Year Inspections

(Buckeye, CITGO, Irving, Gulf, and MEMA): Commenters state that the proposed five-year internal inspection of IFRs with aluminum pontoon decks require the tanks to be emptied and degassed due to safety concerns, and that this will result in a net increase of emissions over the current ten-year inspection schedule. Commenters state that the current ten-year inspection interval required by other state and federal regulations is adequate when combined with leak monitoring and appropriate repairs.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that a complete inspection of the internal floating roof and seal be performed every five years and each time the tank is emptied and degassed. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department's response to Comment A.2.)

Additionally, for products subject to the proposed regulation *Degassing of Petroleum Storage Tanks, Marine Vessels, and Transport Vessels*, 06-096 C.M.R. ch. 170, the Department notes that emissions will be greatly reduced due to control requirements.

No changes were made in response to this comment.

E. Section 6(A): Heated Tanks Testing and Monitoring

1. Comment: Monitoring Tank Temperature

(Global): Commenter states that because of the low rate of temperature change observed in heated storage tanks, Section 6(A)(1) of the proposed rule should be modified to only require collection of daily temperature monitoring data, and the Department should acknowledge that daily monitoring of heated tanks meets the standard for "continuous monitoring" required by the statute.

Response: Changes in the temperature of a liquid petroleum product stored in a heated tank have a significant impact on emissions. Maintaining a stable temperature minimizes breathing losses. An individual daily reading of the liquid temperature for a heated storage tank is not sufficient to demonstrate that a constant temperature is being maintained throughout the day.

No changes were made in response to this comment.

2. Comment: Uptime Requirement

(Global and Sprague): Commenters state that a 98 percent uptime requirement is unreasonable, and request the requirements be lowered to align with similar requirements in *Source Surveillance – Emissions Monitoring*, 06-096 C.M.R. ch. 117, which requires 90 percent uptime for a continuous emissions monitoring system and 95 percent uptime for a continuous opacity monitoring system. The commenters further suggest inclusion of a time period for uptime requirement (e.g., quarterly, semi-annually, annually) as well as a definition of what constitutes a valid hour (i.e., how many minutes or 15-minute intervals of valid data constitute a valid hour.)

Response: Section 6(A)(1) of the proposed rule has been revised to require 95 percent uptime on a calendar quarter basis for consistency with similar continuous monitoring requirements in other Department rules. Additionally, for clarity, a valid hour of monitoring data has been defined as a minimum of one data point in at least two of the four distinct 15-minute quadrants.

3. Comment: Increased Emissions from Tank Testing

(POWER): Commenter states that the testing required by Section 6(A)(2) of the proposed rule may temporarily increase emissions from tanks undergoing emissions testing. Commenter states that fenceline monitoring at these facilities may be affected by these temporary emission increases.

Response: The Department acknowledges that performing testing on fixed roof tanks may temporarily increase emissions from the tanks being tested.

Regarding the potential for interference with fenceline monitoring, Section 8 of the proposed rule provides the minimum fenceline monitoring data requirements to be submitted. However, Section 8 does not preclude submission of additional information which may explain or give context to the results submitted. The Department encourages facilities to provide such supplemental information with their reports.

No changes were made in response to this comment.

4. Comment: Semiannual Testing Unreasonable

(Eurovia): Commenter states that semi-annual testing for non-exempt heated tanks is excessive compared to Federal regulations for asphalt batch plants such as 40 C.F.R. Subpart I. Commenter suggests that testing on an annual basis for the first three years should provide sufficient data to calculate HAP and VOC emissions from a facility.

(Irving): Commenter states that semi-annual testing may present a challenge due to the small window for contractors to provide this service to all heated tank facilities in the state. Commenter suggests that one round of semi-annual testing results should be

sufficient, with repeat testing only required following modifications to a tank's heating range, product composition, and/or tank configuration.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that the facility must collect site-specific air emission test data semiannually during the most active time of operation for any existing, new or modified heated, aboveground petroleum storage tank with a storage capacity greater than 39,000 gallons, and the collected data must be used to establish site-specific air emission factors that must be used for the purposes of annual air emissions reporting and when determining compliance with licensed emission limits. The statute does not include a mechanism that would allow for reduction in testing frequency. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

5. Comment: Similar Tanks

(Sprague): Commenter suggests replacing "same construction" with "similar or the same construction" in Section 6(A)(6) of the proposed rule.

Response: The Department agrees that the suggested edit provides clarity that tanks do not need to be identical to be considered representative; however, as originally proposed, the determination of whether a tank is representative of other tanks at the facility remains at the discretion of the Department. The Department has revised the proposed rule accordingly.

F. Section 6(B): Fenceline Monitoring

1. Comment: Limit Applicability to Facilities with Regulated Tanks

(Sprague and Global): Commenters suggest changing Section 6(B) of the proposed rule to include "a regulated or regulatory required internal or external floating roof tank".

Response: The Department has added the term "non-exempt" to Section 6(B) for consistency with other sections and to clarify which tanks are covered by this section.

2. Comment: Practicality of Implementation

(Irving and MPR): Commenters state that fenceline monitoring is not practical for facilities located in coastal areas due to extreme weather including cold climate, fog, and wind. Commenters state that fenceline monitoring is excessive for facilities located in very rural areas and conversely, that facilities located in South Portland will not be able to attribute the source of the emissions due to nearby interference.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that petroleum storage facilities with an aboveground storage tank with a capacity greater than 39,000 gallons that is equipped with an external or internal floating roof implement a fenceline monitoring program consistent with EPA test methods 325A and 325B. The Department

does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

3. Comment: Monitoring for Additional Analytes

(Sen. Carney, Rep. Millett, City of SoPo, 350 Maine, DOH, PSP, CAW, PK Realty, Lucy Breslin, and Tom Mikulka): Commenters request that toluene, ethylbenzene and xylene be monitored in addition to benzene.

Response: The Department chose benzene as the target analyte as a surrogate for all VOC/HAP emissions because it is the compound most likely to be found near petroleum storage facilities and its use is consistent with similar federal regulations that implement fenceline monitoring for petroleum refineries. However, since the additional compounds requested may be analyzed as part of the same sampling effort, the Department has revised the proposed rule to broaden the scope of monitoring to include toluene, ethylbenzene, and xylenes in addition to benzene.

4. Comment: Requiring Meteorological Monitoring

(Rep. Millett, City of SoPo, PSP, CAW, Tom Mikulka, PK Realty, and 350 Maine): Commenters suggest that data collection for fenceline monitoring should include wind direction, temperature, and atmospheric pressure in order to better identify sources of hazardous air pollutants.

Response: The proposed rule requires fenceline monitoring be conducted in accordance with EPA Methods 325A and 325B (40 C.F.R. Part 63, Appendix A, Methods 325A and 325B). Method 325A requires a meteorological station be sited at or near the facility being monitored and that meteorological data, including wind speed, wind direction, temperature, and barometric pressure be recorded on an hourly basis.

No changes were made in response to this comment.

5. Comment: Meteorological Station Siting

(CITGO): Commenter requests that Section 7(C) provide flexibility to use data from local and regional meteorological stations and towers, and that the proposed rule should allow multiple facilities in close proximity to share a single meteorological station.

Response: The proposed rule already provides the requested flexibility. Use of meteorological data from nearby off-site sources or the use of a single meteorological station by multiple facilities is not prohibited. The location of the associated meteorological station must be included in the site-specific fenceline monitoring plan submitted to the Department for review and approval, and the selection of an appropriate meteorological station will be finalized at that time.

No changes were made in response to this comment.

6. Comment: Implementation Timeline Too Long

(Sen. Carney): Commenter states that beginning fenceline monitoring up to 18 months following the effective date of the rule would put implementation two and a half to three years after enactment of the law. Commenter states that a shorter implementation timeline is appropriate and suggests reducing the time to prepare and submit a site-specific fenceline monitoring plan from six months to three months, reducing the time to commence monitoring after approval of the plan from six months to three months, and reducing the total time to commence monitoring from the effective date of the rule from 18 months to 12 months.

(Rep. Millett): Commenter states the proposed time frame for implementation is unnecessarily lengthy and suggests a total implementation time of nine months.

(City of SoPo): Commenter suggests reducing the timeline for planning and implementation of fenceline monitoring by at least fifty percent.

(Rep. Millett, PSP, CAW, PK Realty, 350 Maine, Peggy Chapman, Tom Mikulka): Commenters stated that the timeline for implementing fenceline monitoring was too long and proposed an implementation period of nine months.

(David Falatko): Commenter stated that the proposed implementation time for fenceline monitoring is too long and unjustified and suggested an implementation period of six months.

(Defend Our Health): Commenter stated that the current suggested timeline is excessive and urged for the process to start as soon as possible.

(Bruce Taylor): Commenter stated that adequate fenceline monitoring can and should be initiated with all due speed in the immediate future.

Response: The Department agrees with the commenter that the timeline to submit the site-specific fenceline monitoring plan should be shortened. Because they are elements of a statute enacted in 2021, facilities have had sufficient notice of these requirements and should be planning accordingly. The Department has revised Section 6(B)(4) of the proposed rule to shorten the time period to submit the site-specific fenceline monitoring plan from six months to three months. The Department has also revised Section 6(B)(5) of the proposed rule to shorten the corresponding deadline for commencement of fenceline monitoring from 18 months to 15 months to reflect the previous change.

7. Comment: Implementation Timeline Too Short

(Irving): Commenter stated that there may not be sufficient time to implement the new programs. Commenter stated that the programs are labor intensive, require experienced and specialized third-party contractors, new costly monitoring equipment, and ongoing sampling and laboratory analysis, and take considerable time and resources to establish. Commenter states that, based on their experience with fenceline monitoring at their Saint John refinery, the minimum lead time to contract for, install, and begin operation of a

fenceline monitoring program is 18 to 24 months and suggests the requirements of the proposed rule take effect 18 months after the effective date.

Response: Although the Department is still in the rulemaking process, the requirement to implement a fenceline monitoring program, designed and operated by a qualified, independent, third-party entity consistent with the requirements of EPA Methods 325A and 325B areas was clearly included in the underlying statute. Because they are elements of a statute enacted in 2021, facilities are on notice that these requirements, at a minimum, will go into effect and should not wait until the final approval of this proposed rule to begin planning for the capital costs or to enter into discussions with potential contractors.

No changes were made in response to this comment.

8. Comment: Limit Applicability to Gasoline Storage

(Buckeye): Commenter states that it must be assumed that the requirement for fenceline monitoring is meant to be focused on petroleum terminals that actively store gasoline, since the only product requiring a floating roof that contains non-negligible amounts of benzene is commercial grade gasoline. Commenter suggests that the applicability requirement be revised to focus on facilities that operate a floating roof tank storing gasoline.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that petroleum storage facilities with an aboveground storage tank with a capacity greater than 39,000 gallons that is equipped with an external or internal floating roof implement a fenceline monitoring program consistent with EPA test methods 325A and 325B. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department's response to Comment A.2.)

The Department chose benzene as the target analyte as a surrogate for all VOC/HAP emissions because it is the compound most likely to be found near petroleum storage facilities and its use is consistent with similar federal regulations that implement fenceline monitoring for petroleum refineries. However, as addressed in response to Comment F.3, the Department has revised the proposed rule to require fenceline monitoring test results include additional compounds (toluene, ethylbenzene, and xylenes).

No changes were made in response to this comment.

9. Comment: Requirements are Redundant and Excessive

(Gulf): Commenter states that fenceline monitoring in addition to the existing and proposed tank monitoring and inspection requirements is excessive and redundant. Commenter suggests requiring fenceline monitoring only if inspections indicate potential leaks and there is a delay greater than 15 days to complete repairs. Commenter further suggests that the proposed rule should allow for reduction and eventual elimination of fenceline monitoring based on results.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that petroleum storage facilities with an aboveground storage tank with a capacity greater than 39,000 gallons that is equipped with an external or internal floating roof implement a fenceline monitoring program consistent with EPA test methods 325A and 325B. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

10. Comment: Financially Burdensome

(Buckeye): Commenter states that a fenceline monitoring program is economically burdensome, especially for small facilities. Commenter suggests that there should be a threshold of potential facility-wide benzene emissions that triggers the requirement for the fenceline monitoring program, such as 0.5 tons per year (tpy) which is 10% of the major source threshold consistent with what would trigger fenceline monitoring at a refinery. Commenter states that such a trigger would encourage facilities to reduce potential emissions.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that petroleum storage facilities with an aboveground storage tank with a capacity greater than 39,000 gallons that is equipped with an external or internal floating roof implement a fenceline monitoring program consistent with EPA test methods 325A and 325B. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

11. Comment: Limited Time Period

(Buckeye): Commenter suggests that fenceline monitoring should be limited to a definitive period of time and that the frequency of monitoring should be reduced and discontinued based on monitoring results. Commenter implies this would be consistent with the federal refinery regulation, 40 C.F.R. Part 63, Subpart CC.

(CITGO): Commenter suggests that the proposed rule should allow for a reduction in the frequency of sampling based on results after the first year of fenceline monitoring based on, among other potential factors, data indicating no detections or limited detections of the target analyte (benzene), indications that sampling should be conducted at specific times or during specific activities (passive tank breathing versus loading) or impacts from sources outside of a specific facility.

(Sprague): Commenter suggests including provisions to allow for reduced and discontinued monitoring based on results and states that these provisions are currently included in the regulations for refinery fenceline monitoring, 40 C.F.R. Part 63 § 63.658.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that petroleum storage facilities with an aboveground storage tank with a capacity greater than 39,000 gallons that is equipped with an external or internal floating roof implement a fenceline monitoring program consistent with EPA test methods 325A and 325B. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

12. Comment: Use of Results

(CITGO): Commenter states that the proposed rule should discuss how the Department intends to review and utilize any data collected through fenceline monitoring and that this discussion is important to the regulated community's understanding of the goals and impacts of the monitoring. Commenter states that monitoring should not continue indefinitely where the data indicates there are no exceedance attributable to a facility or where the monitoring provides no benefit to monitoring emissions from a facility.

(Global): Commenter states that fenceline monitoring may not be reliable for analyzing health impacts.

Response: Passive sampling techniques have been used to monitor for VOC for several decades and have been shown to yield results equivalent to other established methods for many VOCs.¹ Although most early applications were for industrial hygiene monitoring, there has been significant progress in using passive sorbent samplers for measuring VOCs at the lower concentrations needed to assess human health risk at sites regulated under the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Brownfields program; and various state environmental programs. In 2015, EPA promulgated Methods 325A and 325B for ambient monitoring of VOCs using passive sorbent samplers as part of its Refinery Sector Rule,² which required subject petroleum refineries to institute fenceline monitoring of benzene concentrations at the refinery fenceline over 14-day periods.

A passive sampler is a device that contains a solid sorbent (usually granular) in an inert container with openings of known dimensions that allow VOC vapors to pass through at a fairly constant and known rate. Passive samplers are deployed for a designated sampling period and then collected and analyzed by extracting the VOC from the sorbent to measure the total mass of each analyte trapped by the sampler during the sampling period. If the uptake rate of the VOC is known, the average concentration over the sampling period can be calculated. Experimentally derived uptake rates for a range of compounds have been published in national and international standards including

¹ U.S. EPA (Environmental Protection Agency). 2015. Passive Samplers for Investigation of Air Quality: Method Description, Implementation, and Comparison to Alternative Sampling Methods. Available at: <https://nepis.epa.gov/Adobe/PDF/P100MK4Z.pdf>

² 40 C.F.R. Parts 60 and 63, Refinery MACT 1 & MACT 2

ISO 16017-2, ASTM D6196, and BS EN 14662-4 for most passive sampler configurations.

Although conventional monitoring methods (e.g., TO-15) may have higher accuracy than passive monitors, the latter allow for longer sampling durations that include both concentration peaks and valleys and may therefore be more representative of long-term average concentrations and exposure assessment.

Although the underlying legislation, 38 M.R.S. § 590(1), did not establish “action” levels for monitored compounds, a fenceline monitoring program may provide information that can be used for additional technical analyses, such as source identification and “micro-scale” air quality assessment. The underlying statute specifies that a description of a facility’s fenceline monitoring program and a copy of all data collected under the program be made available on the Department’s publicly accessible website. Ultimately, fenceline monitoring program data will be used to evaluate the quality of the ambient air and will be considered in the development of any future proposed legislation, regulatory initiatives, or policies.

No changes were made in response to this comment.

13. Comment: Previous Department Recommendations

(Buckeye): Commenter states that the Department has formally stated that they do not recommend fenceline monitoring as a measure to reduce VOC and HAP emissions from petroleum storage tanks and facilities in Maine, in a report to the legislature titled “*Measurement and Control of Emissions from Aboveground Petroleum Storage Tanks*” dated January 1, 2021. Commenter states that the proposed requirement for fenceline monitoring runs counter to this statement.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that petroleum storage facilities with an aboveground storage tank with a capacity greater than 39,000 gallons that is equipped with an external or internal floating roof implement a fenceline monitoring program consistent with EPA test methods 325A and 325B. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department’s response to Comment A.2.)

No changes were made in response to this comment.

14. Comment: Responsible Entity

(POWER): Commenter requests clarification on which entity is ultimately responsible for each aspect of the fenceline monitoring requirements. Commenter states that while the program itself belongs to the owner or operator, certain reports may be developed by the third-party entity.

Response: The owner or operator of each petroleum storage facility is ultimately responsible for the items listed above. Even when the proposed rule requires specific tasks to be contracted to an independent third-party entity, the owner or operator is

responsible for ensuring that work is completed in accordance with applicable requirements. However, Sections 6(B)(4) and 6(B)(5) have been revised for clarity that the work itself must be performed by a qualified, independent, third-party entity.

15. Comment: Extreme Weather

(CITGO): Commenter requests that the proposed rule specifically allow site-specific monitoring plans for fenceline monitoring to include alternate sampling plans or interruptions in sampling due to adverse weather and weather impacts on data collection following notice of such issues to the Department.

Response: Section (6)(B)(3) of the proposed rule addresses flexibility for deployment/retrieval of passive samplers due to extenuating circumstances, such as extreme weather and power failure. However, the Department agrees that facilities should have a contingency plan that specifically addresses reasonably foreseeable adverse events. The Department has therefore revised Section 6(B)(4) to clarify that this information should be included in the site-specific fenceline monitoring plan.

16. Comment: Nearby Sources (1)

(CITGO): Commenter requests that plan implementation pursuant to Section 6.B(4) and recordkeeping pursuant to Section 7.C include an allowance for reporting on potential other sources that impact the data collected.

Response: The Department agrees that the location of potential interference from off-site sources should be addressed in the site-specific fenceline monitoring plan and has revised Section 6(B)(4) include these requirements. Additionally, the Department has revised Section 6(B)(3) to clarify that the owner or operator may elect to use a sampling period shorter than 14 days because a shorter sampling period may be useful in identifying off-site interference. A shorter sampling period can limit the number of wind directions to be considered when evaluating the source of emissions.

17. Comment: Nearby Sources (2)

(Irving): Commenter states that fenceline monitoring will be challenging for their Searsport marine terminal due to multiple tank farms and other emissions sources nearby. Commenter states that fenceline monitoring results could prove ambiguous and are not expected to provide useful data.

Response: The underlying statute, 38 M.R.S. § 590(1), specifies that petroleum storage facilities with an aboveground storage tank with a capacity greater than 39,000 gallons that is equipped with an external or internal floating roof implement a fenceline monitoring program consistent with EPA test methods 325A and 325B. The Department does not have the authority to be less stringent or prescriptive than the underlying statute. (See also the Department's response to Comment A.2.)

No changes were made in response to this comment.

18. Comment: Sampling Period

(Global): Commenter requests that the frequency of sampling period be established in the site-specific monitoring plan submitted to the Department and stating that a 14-day sampling period “should be used” rather than the more prescriptive “shall be used.” Commenter states that these changes would allow the frequency and duration of sampling to be adjusted based on actual monitoring data and that being so prescriptive at the outset may not allow the Department to implement the program effectively after initial monitoring data is reviewed and understood.

Response: The Department agrees that facilities should have the flexibility to use a shorter sampling period to allow for additional data analysis including attempting to locate off-site interference. The Department has therefore revised Section 6(B)(3) to clarify that the owner or operator may elect to use a sampling period shorter than 14-days upon approval by the Department.

19. Comment: Temperature Limitations

(Irving): Commenter states that the normal working range of sorbent packing for field sampling is 0 – 40 °C (32-104 °F) and that Maine’s ambient temperatures, specifically during the winter season, go below the lower temperature boundary for the sorbent.

Response: EPA provided the Department with documentation on the use of Methods 325A and 325B, including studies³ which determined that ambient temperatures as low as -10 °C do not appear to affect the performance of the method for benzene and toluene when 14-day sampling durations are employed. However, there may be a significant positive bias observed for ethylbenzene and xylenes, meaning fenceline monitoring results may show higher results for these compounds than would be seen with other monitoring methods such as evacuated canister sampling. The Department will consider this bias when comparing fenceline monitoring results for ethylbenzene and xylenes to monitoring results obtained using other methods.

No changes were made in response to this comment.

G. Section 8: Reporting Requirements**1. Comment: Reporting Transparency**

(Rep. Millett): Commenter states that all data and analysis of the tank testing and fenceline monitoring should be made readily available to the public on the Department’s website and updated on a quarterly basis.

³ *Evaluation of a Passive Sampling Method for Long-Term Continuous Monitoring of Volatile Organic Compounds in Urban Environments*, Robert M. Healy, Julie Bennett, Jonathan M. Wang, Nicholas S. Karellas, Colman Wong, Aaron Todd, Uwayemi Sofowote, Yushan Su, Linda Di Federico, Anthony Munoz, Jean-Pierre Charland, Dennis Herod, May Siu, and Luc White
Environmental Science & Technology 2018 52 (18), 10580-10589

(PSP, CAW, PK Realty, 350 Maine, and Lucy Breslin): Commenters stated the need for transparency and requested that all data and analysis be reported quarterly to the DEP, the affected municipalities, and the public.

Response: The proposed rule requires quarterly reporting of monitoring results to the Department. The underlying legislation requires the Department to post this information on its publicly accessible website.

No changes were made in response to this comment.

H. Additional Comments

1. Comment: Additional Comments

(PCAT, Valerie Goldman, Melinda Hull, PP, Damien Lally, Brittany Liscord, Ann Morrill, Edward Reiner, Karen Sanford, David Stenstrom): Commenters did not explicitly state support or opposition to the proposed rule. Commenters voiced support for other commenters or provided anecdotal information without specific requests for changes to the proposed rule.

Response: The Department appreciates the background information provided but determined these comments did not contain any actionable items for this rulemaking process.

No changes were made in response to these comments.

Chapter 171: CONTROL OF PETROLEUM STORAGE FACILITIES

SUMMARY: This regulation establishes control, operating, inspection, testing, monitoring, recordkeeping, reporting, and licensure requirements for petroleum storage facilities pursuant to 38 M.R.S. § 590(1).

1. Applicability.

- A. This regulation applies to petroleum storage facilities licensed or required to obtain an air emission license pursuant to either *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 or *Part 70 Air Emission License Regulation*, 06-096 C.M.R. ch. 140.
- B. The requirements of this Chapter take effect six months after the effective date unless otherwise noted.

2. Definitions.

As used in this Chapter, the following terms have the listed meanings:

- A. **Aboveground Petroleum Storage Tank.** "Aboveground petroleum storage tank" means a storage vessel for liquid petroleum products that is not an underground petroleum storage tank.
- B. **Best Available Control Technology.** "Best Available Control Technology" (BACT) means the term as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100.
- C. **Board.** "Board" means the Board of Environmental Protection as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100, and *Rule Concerning the Processing of Applications and Other Administrative Matters*, 06-096 C.M.R. ch. 2.
- D. **Distillate Fuel.** "Distillate fuel" means the following:
 - (1) Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
 - (2) Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
 - (3) Kerosene, as defined in ASTM D3699;
 - (4) Biodiesel, as defined in ASTM D6751; or
 - (5) Biodiesel blends, as defined in ASTM D7467.All ASTM standards listed are as amended as of the effective date of this Chapter.
- E. **External Floating Roof Tank.** "External floating roof tank" means an aboveground petroleum storage tank with an open-top cylindrical shell equipped with a roof designed to float on the surface of the stored liquid.
- F. **Fugitive Emissions Component.** "Fugitive emissions component" means any component that may emit fugitive emissions of volatile organic compounds (VOC) including valves, connectors, pressure relief devices, open-ended lines, flanges, covers, instruments, and meters. Devices that vent as part of normal operations (e.g., passive vents on fixed roof tanks) are not fugitive emissions components.

- G. Heated Petroleum Storage Tank.** “Heated petroleum storage tank” means an aboveground petroleum storage tank with a fixed roof storing residual oil or asphalt which is heated to keep the product in a liquid, flowable form. Heat is typically provided to the tanks by boilers or furnaces that heat an intermediate liquid, usually a thermal oil, that is circulated through pipes in or surrounding the tank. For the purposes of this Chapter, petroleum storage tanks with floating roofs that are heated only to prevent snow and ice buildup in winter months are not considered heated petroleum storage tanks.
- H. Internal Floating Roof Tank.** “Internal floating roof tank” means an aboveground petroleum storage tank with both a permanent fixed roof and a second roof designed to float on the surface of the stored liquid.
- I. Liquid Petroleum Products.** “Liquid petroleum products” means a broad class of liquid hydrocarbon mixtures of oily, flammable material; oil additives; and petroleum products and petroleum 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 Chapter, propane or compressed gases are not considered liquid petroleum products.
- J. Leak.** “Leak” means any unintentional and uncontrolled release of petroleum product which results in one or more of the following:
- (1) An instrument reading of 500 parts per million by volume (ppmv as methane) or greater in accordance with 40 C.F.R. Part 60, Appendix A, Method 21 as amended on 10/17/2000;
 - (2) A reading of 25 percent LEL or greater within the vapor space of an internal floating roof tank (measured as 2.2 percent propane or equivalent percent of another calibration gas by volume in air) when measured within 3 feet of the internal floating roof;
 - (3) Visible or audible liquid or vapor leaks; or
 - (4) Visible emission observed using optical gas imaging equipment which has been confirmed using any of the methods listed above.
- K. Lower Explosive Limit.** “Lower Explosive Limit” (LEL) means the concentration above which an explosion of a combustible gas can take place.
- L. Optical Gas Imaging.** “Optical gas imaging” means a method of using thermal imaging cameras to visually detect gas, including methane and other organic gases.
- M. Petroleum Storage Facility.** “Petroleum storage facility” means a storage facility that receives liquid petroleum products from refineries or other storage locations primarily by pipeline, ship, or barge and delivers those products to refineries, other storage facilities, bulk plants, or commercial or retail accounts by pipeline, ship, barge, rail, or tank truck. For the purposes of this Chapter, a petroleum storage facility does not include aboveground petroleum storage tanks located at industrial manufacturing or electrical generating facilities.
- N. Petroleum Storage Tank.** “Petroleum storage tank” means any aboveground container used or intended to be used for the storage, use, treatment, collection, capture, or supply of liquid petroleum products as defined in this Chapter.

- O. Underground Petroleum Storage Tank.** "Underground petroleum storage tank" means any container which has 10 percent or more of its volume 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 liquid petroleum products as defined in this Chapter. For purposes of this Chapter, a tank situated in an underground area that is situated upon or above the surface of a floor in such a manner that it may be readily inspected is not an underground petroleum storage tank.
- P. Vapor Space of an Internal Floating Roof Tank.** "Vapor space of an internal floating roof tank" means the space between the top of the internal floating roof and the fixed roof.

3. Exemptions.

The following are exempt from the requirements of this Chapter:

- A. Underground petroleum storage tanks;
- B. Aboveground petroleum storage tanks not located at a petroleum storage facility;
- C. Aboveground petroleum storage tanks with a capacity less than 39,000 gallons; and
- D. Petroleum storage facilities not subject to the licensure requirements of 06-096 C.M.R. ch. 115 or 06-096 C.M.R. ch. 140.

4. Control and Operating Requirements.

- A. Tanks Storing Distillate Fuel.** Any non-exempt petroleum storage tank for which construction commenced after the effective date of this Chapter, and which stores distillate fuel, shall be equipped with a floating roof with one or more closure seals to reduce the visual space between the roof edge and tank wall; or the petroleum storage tank shall be equipped with equally or more effective alternative controls as approved by the Department.
- B. Heated Petroleum Storage Tanks.** Any non-exempt heated petroleum storage tank shall be fully insulated in a manner that minimizes temperature fluctuation of the stored material.
- C. Tank Truck or Trailer Loading.** Liquid petroleum product shall not be loaded into any tank truck or trailer whose most recent previous load was gasoline unless:
- (1) The vapors displaced from the tank truck or trailer are captured and routed to a VOC control system approved by the Department. The vapor collection and VOC control systems shall be maintained in good working order and must be operated at all times product is being transferred to such tank trucks or trailers;
 - (2) All loading and vapor lines are equipped with fittings which make vapor-tight connections and which close automatically when disconnected; and
 - (3) The pressure in the vapor collection system is not allowed to exceed the tank truck or trailer pressure relief settings.

5. Inspection Requirements.

A. Inspections Using Optical Gas Imaging Equipment. The owner or operator of a petroleum storage facility shall perform inspections in accordance with the following:

- (1) At least once per calendar quarter the owner or operator shall conduct an inspection survey of each non-exempt tank and facility fugitive emissions component using optical gas imaging equipment. The first inspection survey shall be performed in the first full calendar quarter after the Department's approval of the optical gas imaging leak detection and repair plan, but in no case shall the first inspection survey be performed later than the third full calendar quarter after the effective date of this rule.
- (2) The optical gas imaging equipment used must meet the following specifications as verified by the manufacturer:
 - (a) Capable of imaging gases in the spectral range for benzene; and
 - (b) Capable of imaging a gas that is half methane and half propane at a concentration of 10,000 ppm at a flow rate of ≤ 60 grams per hour from a quarter inch diameter orifice.
- (3) No later than 60 days after the effective date of this Chapter, the owner or operator shall prepare and submit for Department approval an optical gas imaging leak detection and repair plan. This plan must include the following elements:
 - (a) Procedures for a verification check to confirm that the optical gas imaging equipment meets the specifications in subsection 5(A)(2) of this Chapter;
 - (b) Procedures to ensure that all fugitive emissions components are monitored during each inspection survey. Example procedures include, but are not limited to, a sitemap with an observation path, a written narrative of where the fugitive emissions components are located and how they will be monitored, or an inventory of fugitive emissions components;
 - (c) A written plan for all fugitive emissions components designated as unsafe-to-monitor in accordance with Subsection 5(A)(4) of this Chapter;
 - (d) Procedures for determining the maximum distance from the equipment being surveyed for effective use of the optical gas imaging equipment and how the operator will ensure that this distance is not exceeded;
 - (e) Procedures for determining maximum wind speed during which monitoring can be performed and how the operator will ensure monitoring occurs only at wind speeds below this threshold;

- (f) Procedures for conducting inspections, including the following:
 - (i) How the operator will ensure an appropriate thermal background is present in order to allow detection of potential fugitive emissions;
 - (ii) How the operator will deal with adverse monitoring conditions, such as wind;
 - (iii) How the operator will deal with interference (e.g., steam, precipitation); and
 - (iv) How the operator will confirm leaks.
 - (g) Training and experience required for operators of monitoring equipment and other inspectors prior to performing inspections;
 - (h) Procedures for calibration and maintenance of the optical imaging equipment. At a minimum, procedures must comply with those recommended by the manufacturer; and
 - (i) Procedures and timeframes for conducting and verifying fugitive emission component repairs.
- (4) Some fugitive emissions components may be designated as unsafe-to-monitor if monitoring personnel would be exposed to immediate danger while conducting an inspection. Additionally, some fugitive emissions components may not be capable of being surveyed using optical gas imaging equipment due to interference (e.g., steam or nearby heat sources). The owner or operator must provide a written plan for inspection of all of the fugitive emissions components designated as unsafe-to-monitor or incapable of being surveyed with OGI equipment. This plan must be incorporated into the leak detection and repair plan required by Section 5(A)(3) of this Chapter. The plan must include:
- (a) The identification and location of each fugitive emissions component designated as unsafe-to-monitor or incapable of being surveyed;
 - (b) An explanation of why each fugitive emissions component designated as unsafe-to-monitor or incapable of being surveyed is so designated;
 - (c) A schedule and alternative method(s) for inspection of fugitive emissions components designated as unsafe-to-monitor no less frequently than once per calendar year; and
 - (d) A schedule and alternative method(s) for inspection of fugitive emissions components designated as incapable of being surveyed with optical gas imaging no less frequently than once per calendar quarter.
- (5) If visible emissions are observed in a fugitive emissions component using optical gas imaging equipment, within two calendar days the owner or operator shall determine whether a leak, as defined by this chapter, is present by using photo ionization detection (PID) technology or flame ionization detection (FID) technology. Alternatively, the owner or operator may elect to presume that a leak is present without further confirmation. If a leak is determined or presumed to be present, the owner or operator shall initiate corrective action and repair the leak within 15 calendar days.

If the presence of a leak cannot be confirmed due to safety concerns or physical constraints, the owner or operator shall presume the leak to be confirmed and initiate corrective action and repair the leak within 15 calendar days.

If a leak cannot be repaired within 15 days, the owner or operator shall notify the Department of the leak, the reason for the delay, and the expected date of the repair. The owner or operator shall promptly notify the Department of the date that the leak is successfully repaired. A fugitive emissions component is considered repaired when the optical gas imaging equipment shows no indication of visible emissions or there is no longer indication of a leak as that term is defined in this regulation under normal use conditions.

B. Internal Floating Roof Tank Inspections. The owner or operator of a petroleum storage facility shall perform inspections on each non-exempt internal floating roof tank in accordance with the following:

(1) Visual Inspections.

At least once per calendar month, the owner or operator shall conduct a visual inspection of the roof of each non-exempt internal floating roof tank through roof hatches.

(2) Instrument Inspections.

(a) At least once per calendar month, the owner or operator shall conduct an external inspection of the internal floating roof for each non-exempt internal floating roof tank using photo ionization detection (PID) technology or, in lieu of PID technology, an LEL meter.

(b) The inspection of the internal floating roof must measure the percent LEL inside the vapor space within three feet of the internal floating roof. The PID or LEL meter must be equipped with Teflon sample tubing of sufficient length to meet this requirement. The external inspection of the floating roof tank does not include or require human entry into the confined space between the tank's floating and fixed roofs.

(c) The owner or operator shall use a PID or LEL meter that logs data at 15 second intervals and for which the manufacturer has published correction factors for the VOCs in the tank to be measured.

(d) Readings must be taken when the wind speed is no more than five miles per hour above the average wind speed for the facility location.

(e) Readings must be conducted for a minimum of five minutes after the sample line purge is complete or in accordance with manufacturer recommendations, whichever is longer.

(3) If a leak is detected, the owner or operator shall initiate corrective action and repair the leak within 15 calendar days. If the leak cannot be repaired within 15 days, the owner or operator shall notify the Department of the leak, the reason for the delay, and the expected date of the repair. The owner or operator shall promptly notify the Department of the date that the leak is successfully repaired.

(4) At least once every five calendar years and each time the tank is emptied and degassed, the owner or operator shall conduct a complete inspection by visually inspecting the floating roof deck, deck fittings, and rim seals from within the internal floating roof tank. The inspection

may be performed entirely from the top side of the floating roof as long as there is visual access to all deck components.

- (5) The owner or operator shall notify the Department at least 30 days before an inspection is to be performed from within the internal floating roof tank. If an inspection is unplanned and the facility could not have known about the inspection 30 days in advance, then the owner or operator shall notify the Department at least seven days before the inspection. Notification shall be made either by telephone immediately followed by written documentation demonstrating why the inspection was unplanned, or in writing only and sent such that it is received at least seven days before the inspection.

6. Testing and Monitoring Requirements.

A. Heated Petroleum Storage Tanks. The following requirements apply to non-exempt heated petroleum storage tanks located at a petroleum storage facility.

- (1) The owner or operator shall continuously monitor and record on an hourly average basis the liquid temperature for each in-service tank. This monitor shall record accurate and reliable data at least 95 percent of the source operating time in each calendar quarter. A minimum of one data point in at least two of the four distinct 15-minute quadrants constitutes a valid hour.
- (2) The owner or operator shall test the tank for emissions of VOC and hazardous air pollutants (HAP) at least twice per calendar year with at least four months between tests. Testing shall occur during periods when the tank is being heated.
- (3) The owner or operator shall use the results of testing to develop emission factors for both standing losses (i.e., during periods when the tank is not being filled) and working losses (i.e., during periods when the tank is actively being filled). The test data collected by the facility shall be used, as required, for reporting of annual emissions pursuant to *Emission Statements*, 06-096 C.M.R. ch. 137.
- (4) Emissions testing shall be conducted in accordance with the facility's Performance Test Protocol as approved by the Department and the Bureau of Air Quality's Performance Testing Guidance.
- (5) Emissions testing shall be performed both upstream and downstream of any odor or emissions control equipment.
- (6) If a facility has more than one heated petroleum storage tank of similar construction, storing the same product, and operating in a similar manner, the owner or operator may, upon approval by the Department, conduct emissions testing on a representative tank in lieu of testing all such tanks.

B. Fenceline Monitoring. The owner or operator of a petroleum storage facility which operates a non-exempt internal or external floating roof tank shall conduct sampling along the facility property boundary and analyze the samples in accordance with 40 C.F.R. Part 63, Appendix A, Methods 325A and 325B as amended 11/14/2018 as specified below:

- (1) The monitoring program shall be designed and operated by a qualified, independent, third-party entity.
- (2) The target analytes shall be benzene, ethylbenzene, toluene, and xylenes.
- (3) A maximum 14-day sampling period shall be used except under extenuating circumstances as described below. Upon approval by the Department, the owner or operator may use a shorter sampling period.

When extenuating circumstances do not permit safe deployment or retrieval of passive samplers (e.g., extreme weather, power failure), sampler placement or retrieval earlier or later than the prescribed schedule is allowed but must occur as soon as safe access to sampling sites is possible.

- (4) No later than three months after the effective date of this Chapter, the owner or operator shall submit for Department review and approval a site-specific fenceline monitoring plan prepared by a qualified, independent, third-party entity. This plan must include the following elements:
 - (a) Name and contact information for the independent, third-party entity responsible for designing and operating the monitoring program;
 - (b) Location of each passive monitor;
 - (c) Location of each licensed air emission unit;
 - (d) Location of potential interference from off-site sources;
 - (e) Location of the associated meteorological station;
 - (f) Identification of the sorbent to be used in the passive monitors;
 - (g) Procedures for deploying and recovering sorbent tubes including alternate plans for reasonably foreseeable adverse events such as extreme weather;
 - (h) Procedures for calibration of meteorological equipment; and
 - (i) Any proposed alternative to the methods or procedures contained in Methods 325A or 325B.
- (5) No later than six months after approval of the site-specific fenceline monitoring plan, the owner or operator shall commence monitoring in accordance with this Chapter through use of a qualified, independent, third-party entity. In no case shall monitoring commence later than 15 months from the effective date of this rule. Monitoring must be conducted in accordance with the site-specific fenceline monitoring plan as approved by the Department.

7. Recordkeeping Requirements.

A. Heated Petroleum Storage Tanks. The owner or operator of a petroleum storage facility shall keep the following records for each in-service non-exempt heated petroleum storage tank:

- (1) The quantity on a monthly basis of any products added to the tank;
- (2) Safety Data Sheets (SDS) for the products identified in (1) above; and
- (3) The temperature of the stored liquid on an hourly average basis for each in-service tank.

B. Inspection Results. The owner or operator of a petroleum storage facility subject to the inspection requirements in Section 5 of this Chapter shall keep the following records, as applicable:

- (1) For all quarterly inspections conducted using optical gas imaging equipment:
 - (a) The date of the inspection;
 - (b) Identification and description of the equipment and areas inspected;
 - (c) A description of any leaks detected;
 - (d) An electronic recording of the optical gas imaging equipment images; and
 - (e) A description of any resulting corrective actions or repairs and the dates they were made.
- (2) For all inspections of each internal floating roof tank:
 - (a) The date of the inspection;
 - (b) Identification of the tank that was inspected;
 - (c) Type of inspection (i.e., visual inspection of roof, external inspection with PID or LEL meter);
 - (d) PID or LEL meter calibration records;
 - (e) PID or LEL readings;
 - (f) Description of any detected leaks, holes, tears, or other openings;
 - (g) A description of any resulting corrective actions or repairs and the dates they were made.

C. Fenceline Monitoring. The owner or operator of a petroleum storage facility subject to the fenceline monitoring requirements in Section 6(B) of this Chapter shall keep the following records:

- (1) Coordinates of all passive monitors and the meteorological station used. Coordinates shall be determined using a method with an accuracy of 3 meters or less.
- (2) Average ambient temperature and barometric pressure measurements for the sampling period.
- (3) Individual sample results.
- (4) Method detection limit for each sample.

D. All records shall be kept for a period of at least six years.

8. Reporting Requirements.

The owner or operator of a petroleum storage facility subject to the fenceline monitoring requirements in Section 6(B) of this Chapter shall submit a report to the Department for each calendar quarter with the following information. Each quarterly report must be electronically submitted no later than 45 days after the end of the reporting period.

- A. Facility name and address.
- B. Year and reporting quarter (i.e., Quarter 1, Quarter 2, Quarter 3, or Quarter 4).
- C. For each passive monitor:
 - (1) The latitude and longitude location coordinates;
 - (2) The sampler name; and
 - (3) Identification of the type of sampler (e.g., regular monitor, duplicate, field blank, etc.)
- D. The beginning and ending dates for each sampling period.
- E. Individual sample results in units of micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for each monitor for each sampling period that ends during the reporting period. Results below the method detection limit shall be flagged as such and reported at the method detection limit.
- F. Meteorological data collected during each sampling period, including wind speed and direction.

9. Establishment of Standard Control Requirements.

After June 1, 2023, any petroleum storage facility that submits an air emission license application for new or modified equipment shall, as a condition of licensure, at a minimum, comply with best practical treatment (as used in 38 M.R.S. § 590(1)) requirements for petroleum storage facilities as determined by the Department. This requirement does not absolve the owner or operator from performing a Best Available Control Technology (BACT) analysis as required by 06-096 C.M.R. ch. 115. The BACT analysis may supersede best practical treatment requirements if the Department determines it to be more stringent.

AUTHORITY: 38 M.R.S., Sections 585, 585-A, and 590

EFFECTIVE DATE:

Summary of Provisionally Adopted Major Substantive Rule for Legislative Review

Chapter 171: Control of Petroleum Storage Facilities

(from MAPA 3)

L.D. 163, An Act Concerning the Regulation of Air Emissions at Petroleum Storage Facilities requires the Department to initiate rulemaking to align with the new requirements contained in 38 M.R.S. § 590, subsection 1. The provisionally adopted rule establishes new control, operating, inspection, testing, monitoring, recordkeeping, and reporting requirements for petroleum storage facilities throughout the state, in accordance with the requirements outlined by the legislature.

Basis Statement for Provisionally Adopted Rule for Legislative Review

Chapter 171: Control of Petroleum Storage Facilities

(from Response to Comments)

This rule is proposed for provisional adoption to implement Public Law 2021, Chapter 294, *An Act Concerning the Regulation of Air Emissions at Petroleum Storage Facilities*. Section 2 of that law directed the Department to initiate rulemaking to align Department rules with the new requirements contained in 38 M.R.S. § 590(1), which establishes new control, operating, inspection, testing, monitoring, recordkeeping, and reporting requirements for petroleum storage facilities throughout the state including:

- Requiring new distillate tanks to be constructed with an internal floating roof;
- Requiring heated storage tanks be fully insulated to reduce breathing emissions;
- Prohibiting switchloading, which is the uncontrolled loading of distillate into trucks which previously carried gasoline;
- Implementing a quarterly inspection program using optical gas imaging equipment to look for leaks;
- Requiring additional visual and instrumental inspections of tanks with internal floating roofs;
- Testing of emissions from heated tanks twice per year; and
- Implementation of a fence-line monitoring program which requires each facility to deploy passive monitors around their facility that are collected and analyzed every two weeks.

ECONOMIC IMPACT STATEMENT

FOR MAJOR SUBSTANTIVE RULE FILING

Provisionally adopted rule Chapter 171: Control of Petroleum Storage Facilities

Economic impacts to citizens:

This rule's operation will require affected facilities to either invest in new monitoring equipment and train employees to use it, or to engage private contractors to do the required inspections. It is expected that these costs will be passed along to consumers in the form of price increases on the products stored at the facilities.

Economic impacts to businesses:

Under this rule, all petroleum storage facilities will be required to conduct quarterly inspections using optical equipment that typically costs in excess of \$100,000 per unit, and requires specialized training to operate. Facilities may be able to contract this work to a third party; however, limited availability of contractors and the time sensitivity and weather dependency of the work may make this impractical.

Facilities that operate heated storage tanks will be required to conduct emissions testing twice per year. These tests are expected to cost \$5,000 - \$10,000 for each event.

Facilities that store petroleum products in floating roof tanks will be required to contract with a third-party vendor to implement a fenceline monitoring program. The cost of the individual monitors is small, however the cost to design the integrated monitoring system and install the monitoring stations as well as the required meteorological station is expected to be \$20,000 - \$50,000 per facility. The annual recurring costs for sampling, laboratory analysis, and reporting is expected to be \$75,000 - \$130,000 per facility.

Economic impacts to municipalities:

Indirect impacts to municipalities are expected to be limited to increases in fuel costs related to affected facilities' expenses due to the new monitoring and testing requirements. No direct impacts to municipalities are anticipated.

Economic impacts to State Government:

The Department estimates that two full-time equivalent (FTE) positions will be required to determine facility compliance and administer the requirements of this rule.

