

STATE REVIEW FRAMEWORK

US EPA Region 1 Direct Implementation of NPDES in Massachusetts

**Clean Water Act
Implementation in Federal Fiscal Year 2019**

U.S. Environmental Protection Agency

**Final Report
August 26, 2021**

I. Introduction

A. Overview of the State Review Framework

The State Review Framework (SRF) is a key mechanism for EPA oversight, providing a nationally consistent process for reviewing the performance of state delegated compliance and enforcement programs under three core federal statutes: Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act. Through SRF, EPA periodically reviews such programs using a standardized set of metrics to evaluate their performance against performance standards laid out in federal statute, EPA regulations, policy, and guidance. When states do not achieve standards, the EPA will work with them to improve performance.

Established in 2004, the review was developed jointly by EPA and Environmental Council of the States (ECOS) in response to calls both inside and outside the agency for improved, more consistent oversight of state delegated programs. The goals of the review that were agreed upon at its formation remain relevant and unchanged today:

1. Ensure delegated and EPA-run programs meet federal policy and baseline performance standards
2. Promote fair and consistent enforcement necessary to protect human health and the environment
3. Promote equitable treatment and level interstate playing field for business
4. Provide transparency with publicly available data and reports

B. The Review Process

The review is conducted on a rolling five-year cycle such that all programs are reviewed approximately once every five years. The EPA evaluates programs on a one-year period of performance, typically the one-year prior to review, using a standard set of metrics to make findings on performance in five areas (elements) around which the report is organized: data, inspections, violations, enforcement, and penalties. Wherever program performance is found to deviate significantly from federal policy or standards, the EPA will issue recommendations for corrective action which are monitored by EPA until completed and program performance improves.

The SRF is currently in its 4th Round (FY2018-2022) of reviews, preceded by Round 3 (FY2012-2017), Round 2 (2008-2011), and Round 1 (FY2004-2007). Additional information and final reports can be found at the EPA website under [State Review Framework](#).

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II. Navigating the Report

The final report contains the results and relevant information from the review including EPA and program contact information, metric values, performance findings and explanations, program

responses, and EPA recommendations for corrective action where any significant deficiencies in performance were found.

A. Metrics

There are two general types of metrics used to assess program performance. The first are **data metrics**, which reflect verified inspection and enforcement data from the national data systems of each media, or statute. The second, and generally more significant, are **file metrics**, which are derived from the review of individual facility files in order to determine if the program is performing their compliance and enforcement responsibilities adequately.

Other information considered by EPA to make performance findings in addition to the metrics includes results from previous SRF reviews, data metrics from the years in-between reviews, multi-year metric trends.

B. Performance Findings

The EPA makes findings on performance in five program areas:

- **Data** - completeness, accuracy, and timeliness of data entry into national data systems
- **Inspections** - meeting inspection and coverage commitments, inspection report quality, and report timeliness
- **Violations** - identification of violations, accuracy of compliance determinations, and determination of significant noncompliance (SNC) or high priority violators (HPV)
- **Enforcement** - timeliness and appropriateness of enforcement, returning facilities to compliance
- **Penalties** - calculation including gravity and economic benefit components, assessment, and collection

Though performance generally varies across a spectrum, for the purposes of conducting a standardized review, SRF categorizes performance into three findings levels:

Meets or Exceeds: No issues are found. Base standards of performance are met or exceeded.

Area for Attention: Minor issues are found. One or more metrics indicates performance issues related to quality, process, or policy. The implementing agency is considered able to correct the issue without additional EPA oversight.

Area for Improvement: Significant issues are found. One or more metrics indicates routine and/or widespread performance issues related to quality, process, or policy. A recommendation for corrective action is issued which contains specific actions and schedule for completion. The EPA monitors implementation until completion.

C. Recommendations for Corrective Action

Whenever the EPA makes a finding on performance of *Area for Improvement*, the EPA will include a recommendation for corrective action, or recommendation, in the report. The purpose of recommendations are to address significant performance issues and bring program performance back in line with federal policy and standards. All recommendations should include specific actions and a schedule for completion, and their implementation is monitored by the EPA until completion.

III. Review Process Information

Clean Water Act (CWA)

Data metric analysis: December 17, 2020

File selection list: December 22, 2020

File Review Worksheet: July 20, 2021

Draft Report: July 22, 2021

Final Report: August 26, 2021

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Executive Summary

Areas of Strong Performance

The following are aspects of the program that, according to the review, are being implemented at a high level:

Clean Water Act (CWA)

- Permit and effluent limit data entry rates exceed the national goal.
- Inspection coverage and off site activities meet expectations for inspection and off site monitoring commitments listed in the Region's Compliance Monitoring Strategy Plan (CMS Plan).
- Inspection report quality and timeliness meet SRF program expectations.
- Compliance determinations are well documented in files reviewed.
- All enforcement actions reviewed promote return to compliance.
- All penalties reviewed document both economic benefit and gravity, changes to penalties, and collection of penalties.

Priority Issues to Address

The following are aspects of the program that, according to the review, are not meeting federal standards and should be prioritized for management attention:

Clean Water Act (CWA)

- An appreciable number of files reviewed (13) did not have data accurately reflected in the national database.

Comparison between Round 3 and Round 4 Areas of Improvement Metric Findings

Metric	Round 3 Finding Level FY 2012	Round 4 Finding Level FY 2019
2b: Files reviewed where data are accurately reflected in the national data system	Area for Improvement	Area for Improvement
6a: Inspection reports complete and sufficient to determine compliance at the facility	Area for Improvement	Meets or Exceeds Expectations
6b: Timeliness of inspection report completion	Area for Improvement	Meets or Exceeds Expectations
7e: Accuracy of compliance determinations	Area for Improvement	Meets or Exceeds Expectations
10b: Enforcement responses reviewed that address violations in an appropriate manner	Area for Improvement	Area for Attention

Clean Water Act Findings

CWA Element 1 - Data

Finding 1-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

Permit and effluent limit data entry rates exceed the national goal.

Explanation:

Permit limits are the maximum amount of a pollutant that the facility may release according to its permit and discharge monitoring reports (DMRs) record the actual pollutant amounts released. These two pieces of information are minimum data requirements for both major and non-major facilities. Exceedance of permit limits indicates that a violation occurred on a discharge monitoring report. Region 1 entered 206 of the 213 permit limits (96.7%) required for NPDES permits in ICIS. The Region entered 5,364 of 5,387 (99.6%) of the discharge monitoring data. Performance meets and exceeds the national goal of $\geq 95\%$.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	Region N	Region D	Region Total
1b5 Completeness of data entry on major and non-major permit limits. [GOAL]	95%	98.6%	206	213	96.7%
1b6 Completeness of data entry on major and non-major discharge monitoring reports. [GOAL]	95%	97%	5,364	5,387	99.6%

Regional Response:

The seven permits without limits are correctly coded. These are CSO and pump station permits which do not have limits for any pollutant so there are no limits to code in ICIS. These permits do require reporting and as EPA builds the tools for electronic reporting under the E-Rule, we will be able to add a DMR for electronic reporting by this group of permittees. We hope that by 2025, these permits will not show up as lacking limits in the Data Metrics Analysis.

CWA Element 1 - Data

Finding 1-2

Area for Improvement

Recurring Issue:

Recurring from Rounds 2 and 3

Summary:

Thirteen files reviewed did not have data accurately reflected in the national database.

Explanation:

Eighteen of 31 files reviewed had accurate data reported in ICIS. Several single event violations listed in inspection reports were not reported in the data system of record. Single event violations listed in inspection reports are not well documented in ICIS in 8 files reviewed. Minor data accuracy issues that occurred in one file include: an inaccurate enforcement action date, inaccurate permit schedule violations, and an inaccurately reported inspection. Some files show updates after the data were frozen. Two files reviewed show changes to data on violations after the data were frozen based on comparison of information in frozen file selection data to information in detailed facility reports that update on a weekly basis.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	Region N	Region D	Region Total
7j1 Number of major and non-major facilities with single-event violations reported in the review year.			0		0
2b Files reviewed where data are accurately reflected in the national data system [GOAL]	100%		18	31	58.1%

Regional Response:

In response to the recommendation language, we will propose to enter verified non-DMR violations into ICIS as SEVs whether they were discovered on inspections or through offsite compliance monitoring activities. OECA and regional managers consistently discourage inspectors from making compliance determinations in inspection reports. For this reason, the Region water enforcement program has two post-inspection documents: the inspection report, and a compliance determination memo. These compliance determination memos spell out the violations and will inform the entry of Single Event Violations in ICIS. See proposed edits to the recommendations, below.

Recommendation:

Rec #	Due Date	Recommendation
1	10/31/2021	Region 1 will develop a plan that documents the process and timeframe in which non-DMR violation data is entered into ICIS.
2	10/31/2022	EPA HQ will use the file selection tool to select six FY 2022 inspection reports and compliance determination memos for review of single event violation data entry. This recommendation will be complete when the Region correctly enters single event violations in ICIS for greater than 70% of the selected files.

CWA Element 2 - Inspections

Finding 2-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

Inspection coverage and offsite activities met performance expectations for the commitments listed in the Region's Compliance Monitoring Strategy Plan (CMS Plan). Stormwater construction and MS4 inspection coverage targets in the Region's CMS plan were not met. Inspection report quality and timeliness met SRF program expectations.

Explanation:

Region 1 established inspection commitments for inspecting both major and non-major facilities in its FY 2019 CMS Plan. The Region committed to inspect 15 major facilities and 8 non-major facilities. Actual performance exceeds this commitment with 20 inspections performed at major facilities and 48 non-major facility inspections. Region 1 inspected 14 non-major individual permit

facilities and 34 non-major general permit facilities. Inspection coverage for the non-major universe is 48/8= 600% of the Region's initial target, while inspection coverage at majors is 133% of the target for inspections. The region met and exceeded commitments for pretreatment, significant industrial user, combined sewer overflows, sanitary sewer overflows, stormwater industrial, and biosolids inspections. The region committed to conduct 10 MS4 inspections and 51 off site desk audits. The Region completed 2 of the 10 MS4 audit inspections listed in the Region CMS plan, and greatly exceeded its commitment to perform 51 off site audits with 236 off site audits performed. Stormwater construction inspection coverage is slightly below the region's commitment in its CMS plan with 18 of 20 stormwater construction inspections performed. Inspection report quality and timeliness are excellent. All thirteen inspection reports reviewed are complete and sufficient to determine compliance at the facility. Twelve of the 13 inspection reports meet the 60 day EPA policy for inspection report completion. One report was completed close to the timeliness policy in 68 days. Average inspection report completion timeliness is 35 days.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	Region N	Region D	Region Total
4a1 Number of pretreatment compliance inspections and audits at approved local pretreatment programs. [GOAL]	100% of commitments		2	0	200%
4a2 Number of inspections at EPA or state Significant Industrial Users that are discharging to non-authorized POTWs. [GOAL]	100% of commitments		6	5	120%
4a4 Number of CSO inspections. [GOAL]	100% of commitments		7	0	700%
4a5 Number of SSO inspections. [GOAL]	100% of commitments		6	0	600%
4a7 Number of Phase I and II MS4 audits or inspections. [GOAL]	100% of commitments		238	61	390.2%
4a8 Number of industrial stormwater inspections. [GOAL]	100% of commitments		25	15	166.7%
4a9 Number of Phase I and Phase II construction stormwater inspections. [GOAL]	100% of commitments		18	20	90%

Metric ID Number and Description	Natl Goal	Natl Avg	Region N	Region D	Region Total
4a10 Number of comprehensive inspections of large and medium concentrated animal feeding operations (CAFOs) [GOAL]	100% of commitments		0	0	0
4a11 Number of sludge/biosolids inspections at each major POTW. [GOAL]	100% of commitments		12	12	100%
5a1 Inspection coverage of NPDES majors. [GOAL]	100% of commitments	3.6%	20	15	133.3%
5b Inspections coverage of NPDES non-majors (individual and general permits) [GOAL]	100% of commitments		48	8	600%
6a Inspection reports complete and sufficient to determine compliance at the facility. [GOAL]	100%		13	13	100%
6b Timeliness of inspection report completion [GOAL]	100%		11	13	84.6%

Region 1 Response:

We agree with the findings.

CWA Element 3 - Violations

Finding 3-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

Compliance determinations are well documented in files reviewed.

Explanation:

All 13 inspection reports reviewed show clear compliance determinations. Zero single event violations were reported in ICIS. Several single event violations appear in inspection reports reviewed. This issue is addressed under Finding 1-2 as a data reporting issue. Overall noncompliance at major and non-major facilities in Massachusetts is 13.2% with 544 of 4,110 facilities in noncompliance. Serious noncompliance violations, known as significant non-compliance (SNC), occur at 312 of 4,103 (7.6%) of water facilities regulated under the National Pollutant Discharge Elimination System (NPDES).

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	Region N	Region D	Region Total
7e Accuracy of compliance determinations [GOAL]	100%		13	13	100%
7j1 Number of major and non-major facilities with single-event violations reported in the review year.			0		0
7k1 Major and non-major facilities in noncompliance.		12.8%	544	4,110	13.2%
8a3 Percentage of major facilities in SNC and non-major facilities Category I noncompliance during the reporting year.		7.4%	312	4,103	7.6%

Regional Response:

We agree with the findings.

CWA Element 4 - Enforcement

Finding 4-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

All enforcement actions reviewed promote return to compliance. Many of the major facilities in significant noncompliance have enforcement actions in 2019 or are under long term orders.

Explanation:

EPA reviewed 22 enforcement actions taken in FY 2019. All 22 formal enforcement actions reviewed promote, or will promote, return to compliance. Region 1 took a formal enforcement action at 6 out of 8 major facilities in significant noncompliance in the review year, the subsequent fiscal year, or prior years that will promote return to compliance. Two of these formal enforcement actions occurred in FY 2019, and four other actions taken in other years will address significant noncompliance.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	Region N	Region D	Region Total
9a Percentage of enforcement responses that returned, or will return, a source in violation to compliance [GOAL]	100%		22	22	100%

Regional Response:

We agree with the findings.

CWA Element 4 - Enforcement

Finding 4-2

Area for Attention

Recurring Issue:

No

Summary:

Seventy-five percent of major facilities in significant noncompliance are addressed through formal enforcement. Eighty-three percent of facilities reviewed had appropriate enforcement action taken.

Explanation:

All of the enforcement actions taken by Region 1 in FY 2019 were an appropriate formal enforcement response for violations reviewed. Five files reviewed indicate that some actions are not timely responses to violations. Region 1 took formal enforcement to address two major facilities in significant noncompliance in FY 2019. Four additional actions taken addressed SNC outside the review year through long term consent orders. Two major facilities in significant noncompliance did not have formal enforcement taken within two quarters as recommended in the NPDES Enforcement Management System. One major facility with chronic discharge monitoring

report violations had no enforcement taken in FY 2019. No action was taken in 2019 to resolve longstanding discharge monitoring report violations at a non-major facility occurring since 2005; the Region has since taken action in FY 2021 to address these violations. One non-major facility with chronic discharge monitoring report violations for more than one year received formal enforcement in FY 2019.

While the timeliness of formal enforcement actions taken in response to SNC violations has improved significantly since the last Round 3 SRF review, the rate (as observed in the indicator 10a1 below) is still slightly below performance expectations.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	Region N	Region D	Region Total
10a1 Percentage of major NPDES facilities with formal enforcement action taken in a timely manner in response to SNC violations		2.7%	6	8	75%
10b Enforcement responses reviewed that address violations in an appropriate manner [GOAL]	100%		25	30	83.3%

Regional Response:

We agree with the findings.

CWA Element 5 - Penalties

Finding 5-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

All penalties reviewed document both economic benefit and gravity, changes to penalties, and collection of penalties.

Explanation:

EPA reviewed 10 penalty files and found documentation of penalty collection in each file. Four penalties reviewed document economic benefit and gravity and six files had expedited settlement

agreements for which no economic benefit is calculated. Two penalties show changes between the initial and final penalty which resulted in a lower penalty assessed than initially proposed. Both penalties with changes show documentation of the Region's rationale for changes to the penalties.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	Region N	Region D	Region Total
11a Penalty calculations reviewed that document and include gravity and economic benefit [GOAL]	100%		4	4	100%
12a Documentation of rationale for difference between initial penalty calculation and final penalty [GOAL]	100%		2	2	100%
12b Penalties collected [GOAL]	100%		10	10	100%

Regional Response:

We agree with the findings.

*Note: this report will be updated following completion of CAA and RCRA SRF reviews in subsequent fiscal years.

STATE REVIEW FRAMEWORK

Massachusetts

Clean Air Act and Resource Conservation and Recovery Act Implementation in Federal Fiscal Year 2019

**U.S. Environmental Protection Agency
Region 1, Boston**

**Final Report
July 19, 2022**

Executive Summary

Introduction

EPA Region 1 enforcement staff conducted a State Review Framework (SRF) compliance and enforcement program oversight review of the Massachusetts Department of Environmental Protection (MassDEP).

EPA bases SRF findings on data and file review metrics, and conversations with program management and staff. EPA will track recommended actions from the review in the SRF Tracker and publish reports and recommendations on EPA's ECHO web site.

Areas of Strong Performance

- MassDEP does a very good job of entering most minimum data reporting requirements (MDRs) into ICIS-Air and RCRAInfo in a timely manner.
- MassDEP's RCRA Program devoted significant compliance/enforcement resources to clear up a legacy backlog of secondary violators not returned to compliance.
- MassDEP has taken advantage of CMS flexibilities in the CAA and RCRA programs and did an excellent job ensuring inspection coverage at most CMS sources.
- MassDEP does an excellent job identifying violations through inspections/report and record reviews/stack tests and, for non-High Priority Violators (HPVs) and Significant Non-compliers (SNCs) identified, takes timely and appropriate enforcement actions to address the violations identified.
- MassDEP does an excellent job of including, in its informal and/or formal enforcement actions, corrective actions needed for a source to return to compliance.
- MassDEP does an excellent job of assessing penalties and, with regards to the CAA Program, documenting the collection of penalties for the formal enforcement actions it takes. The penalties associated with formal enforcement actions taken include gravity and economic benefit.

Areas to Focus Attention

- MassDEP's CAA Program, although entering the majority of compliance monitoring activities into ICIS-Air in a timely manner, did have some activities (approximately 12%) reported to ICIS-Air significantly late (the majority 20 to 50 days late, with some outliers four to ten months late).
- MassDEP has had issues entering some MDRs into ICIS-Air in a complete and accurate manner.
- MassDEP inspection reports, for the most part, are well written and thorough; however, MassDEP should focus more attention to federal standards that apply to Title V major sources, particularly regarding fuel-burning equipment such as boilers and engines subject to federal National Emission Standards for Hazardous Air Pollutants and/or federal New Source Performance Standards. MassDEP should ensure that all reports have

a consistent level of detail to describe facility operation, waste handling and generation and possible violations.

- MassDEP has had some issues regarding the identification of (HPVs) and adhering to EPA's policy for "Timely and Appropriate Enforcement Response to HPVs".
- MassDEP should ensure that supporting documentation is available in its files regarding the assessment or non-assessment of economic benefit in its penalty calculations and, with respect to the RCRA Program, documentation regarding the collection of penalties.

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I. Background on the State Review Framework

The State Review Framework (SRF) is designed to ensure that EPA conducts nationally consistent oversight. It reviews the following local, state, and EPA compliance and enforcement programs:

- Clean Air Act Stationary Sources (Title V)
- Resource Conservation and Recovery Act Subtitle C

Reviews cover:

- **Data** - completeness, accuracy, and timeliness of data entry into national data systems
- **Inspections** - meeting inspection and coverage commitments, inspection report quality, and report timeliness
- **Violations** - identification of violations, determination of significant noncompliance (SNC) for the RCRA program and high priority violators (HPV) for the CAA program, and accuracy of compliance determinations
- **Enforcement** - timeliness and appropriateness, returning facilities to compliance
- **Penalties** - calculation including gravity and economic benefit components, assessment, and collection

EPA conducts SRF reviews in three phases:

- Analyzing information from the national data systems in the form of data metrics
- Reviewing facility files and compiling file metrics
- Development of findings and recommendations

EPA builds consultation into the SRF to ensure that EPA and the state understand the causes of issues and agree, to the degree possible, on actions needed to address them. SRF reports capture the agreements developed during the review process in order to facilitate program improvements. EPA also uses the information in the reports to develop a better understanding of enforcement and compliance nationwide, and to identify issues that require a national response.

Reports provide factual information. They do not include determinations of overall program adequacy, nor are they used to compare or rank state programs.

Each state's programs are reviewed once every five years. The first round of SRF reviews began in FY 2004. The fourth round of reviews began in FY 2018 and will continue through FY 2022.

II. SRF Review Process

Review period: 2019

Key dates: File Reviews -Air:

April 14, 2022 – MassDEP Central Regional Office

April 20, 2022 – MassDEP Southeast Regional Office

April 28, 2022 – MassDEP Northeast Regional Office

May 3, 2022 – MassDEP Western Regional Office

File Reviews – RCRA:

April 14, 2022 – MassDEP Central Regional Office

April 20, 2022 – MassDEP Southeast Regional Office

April 28, 2022 – MassDEP Northeast Regional Office

May 4, 2022 – MassDEP Western Regional Office

State and EPA key contacts for review:

Clean Air Act

Tom McCusker, EPA Air, (617) 918-1862

McCusker.Tom@epa.gov

Stephen Lachance, MassDEP Air, (617) 413-2684

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Resource Conservation and Recovery Act

Lisa Papetti, EPA RCRA, (617) 918-1756

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State Review Framework (EPA Region I Management)

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III. SRF Findings

Findings represent EPA's conclusions regarding state performance and are based on findings made during the data and/or file reviews and may also be informed by:

- Annual data metric reviews conducted since the state's last SRF review
- Follow-up conversations with state agency personnel
- Review of previous SRF reports, Memoranda of Agreement, or other data sources
- Additional information collected to determine an issue's severity and root causes

There are three categories of findings:

Meets or Exceeds Expectations: The SRF was established to define a base level or floor for enforcement program performance. This rating describes a situation where the base level is met and no performance deficiency is identified, or a state performs above national program expectations.

Area for State Attention: An activity, process, or policy that one or more SRF metrics show as a minor problem. Where appropriate, the state should correct the issue without additional EPA oversight. EPA may make recommendations to improve performance, but it will not monitor these recommendations for completion between SRF reviews. These areas are not highlighted as significant in an executive summary.

Area for State Improvement: An activity, process, or policy that one or more SRF metrics show as a significant problem that the agency is required to address. Recommendations should address root causes. These recommendations must have well-defined timelines and milestones for completion, and EPA will monitor them for completion between SRF reviews in the SRF Tracker.

Whenever a metric indicates a major performance issue, EPA will write up a finding of Area for State Improvement, regardless of other metric values pertaining to a particular element.

The relevant SRF metrics are listed within each finding. The following information is provided for each metric:

- **Metric ID Number and Description:** The metric's SRF identification number and a description of what the metric measures.
- **Natl Goal:** The national goal, if applicable, of the metric, or the CMS commitment that the state has made.
- **Natl Avg:** The national average across all states, territories, and the District of Columbia.
- **State N:** For metrics expressed as percentages, the numerator.
- **State D:** The denominator.
- **State % or #:** The percentage, or if the metric is expressed as a whole number, the count.

Appendix

General State Program Description (Provided by MADEP)

MassDEP's compliance and enforcement is composed of the Commissioner's Office, the Bureaus of Air and Waste (formerly Waste Prevention), Water Resources (formerly Resource Protection) and Waste Site Clean-up, the Offices of General Counsel, Enforcement, and Research and Standards, four regional offices and the Wall Experiment Station (laboratory). The Bureau of Air and Waste (BAW) is responsible for implementing state and federal programs regarding air quality, hazardous waste, industrial wastewater (compliance & enforcement only), toxics, underground storage tanks and solid waste management and recycling. The Bureau of Water Resources (BWR) is responsible for implementing programs regarding drinking water, stormwater, wastewater, industrial wastewater (permitting), wetlands and waterways. The Bureau of Waste Site Clean-up (BWSC) is responsible for managing the assessment and clean-up of releases of oil and hazardous materials.

Overall management of compliance and enforcement is the responsibility of the Deputy Commissioner for Operations and Environmental Compliance. Implementing compliance assurance activities including conducting inspections, providing technical assistance, and taking appropriate enforcement actions are largely, but not solely, a function of the four regional offices. In addition to enforcement by the regional offices, the Environmental Strike Force (ESF), which is headquartered in Boston and has investigators in each regional office, coordinates and supports programs across the Department to properly identify and develop civil and criminal cases for referral to and prosecution by the Attorney General's Office (AGO). ESF also develops and initiates select Bureau based administrative enforcement action out of the Boston office. Cases are identified for referral to AGO through a longstanding and formal bi-monthly meeting called the Case Screening Committee (CSC), which is comprised of ESF senior staff, other Department enforcement leads, and AGO enforcement chiefs. CSC is a complement to the well-established Regional Enforcement Review Committee (RERC), that meets regularly in each region, and that reviews all cases for a consistent approach to policy application, enforcement, and referral to CSC. In addition to coordination and partnership with the criminal and civil divisions of the AGO, ESF works closely with local police departments, develops cases for prosecution by local District Attorneys, and performs joint investigations with the EPA Criminal Investigative Division (CID). Other MassDEP enforcement staff also coordinate compliance and enforcement related activities with municipal agencies, including Departments of Public Works, Boards of Health and Conservation Commissions.

In the mid-1990s, MassDEP re-organized its EPA delegated compliance and enforcement programs, making them fully multi-media. As a result, MassDEP inspectors are no longer single media inspectors (CAA, RCRA, etc.) Instead, they conduct multi-media or FIRST (Facility-

Wide Inspections to Reduce the Source of Toxics) inspections where appropriate. When carrying out an inspection, a multi-media inspector assesses the compliance of a facility with all applicable statutes and regulations. All inspection documents and any subsequent enforcement documents address all applicable statutes and regulations. MassDEP usually addresses all violations at a facility through a single enforcement action that includes violations under all of the specific statutes and regulations involved. While the state review framework (SRF) does not usually evaluate the benefits of a multi-media compliance program as part of this review, MassDEP believes that multi-media inspections help prevent inter-media transfer of pollutants and provides opportunities to promote MassDEP's Toxic Use Reduction requirements.

Since FY14, Massachusetts has operated under an approved Alternative Compliance Monitoring Strategy (ACMS) for air. This plan revised the inspection schedule for Major and Synthetic Minor Air sources as well as Large Quantity Generators (LQGs) where there were no violations warranting administrative or civil orders or penalties, or criminal penalties (orders or penalties) or designation as a High Priority Violator (HPV) or Significant Non-Compliance (SNC) at their last inspection or report review. This allowed MassDEP to shift effort to multi-media inspections of 100 smaller Minor or Synthetic Minor Air sources which are also Small Quantity Generators or Very Small Quantity Generators of Hazardous waste. While the Air Title V Major, Air Synthetic Minor 80% (SM80) and RCRA LQG facilities have been routinely inspected for many years, the vast majority of the smaller Air and RCRA facilities are visited relatively rarely. Yet past experience has demonstrated that these smaller sources may be missing appropriate permits and registrations, may not be controlling emissions or managing waste adequately, or may not be conducting proper monitoring or record-keeping. When taken as a group, improper environmental management at smaller facilities can have a significant cumulative impact on environmental quality. Smaller sources also can have harmful impacts, particularly if the facilities are located in densely populated or environmentally sensitive areas.

Inspections were targeted for three groups:

- Potential High Risk sources including: sources subject to national emission standards for hazardous air pollutant (NESHAP); sources with actual emissions of volatile organic compounds (VOC) of greater than 10 tons per year; sources in North American Industry Classification (NAIC) codes known to use highly toxic substances; and sources with older add-on air pollution control equipment.
- Potentially under regulated facilities including sources that may be reporting high RCRA waste amounts but low air emissions and vice versa.
- Potential "Outside the System" facilities and sources that may have been built and begun operating in recent years without permits.

The Compliance Monitoring Strategy (CMS) fields in EPA's Air Facility System (AFS) were updated to include these sources and compliance and enforcement actions taken for these sources

were reported to EPA’s AFS and RCRAInfo systems. Some of these sources may be on the list for file review in this round of the SRF.

Finally, in addition to reporting the performed actions at the ACMS sources in the appropriate federal data systems, MassDEP is tracking each Full Compliance Evaluation (FCE) or Compliance Evaluation Inspection (CEI) and its outcome, including whether or not the compliance evaluation resulted in enforcement. If enforcement was taken, the tracking includes an assessment of whether the corrective action resulted in the facility: decreasing emissions to the air; obtaining the required approvals and/ or installing emission control equipment; or improving recordkeeping, monitoring, or reporting.

Resources

A summary of the budget and resource trend is as follows:

MassDEP State Budget		
Fiscal Year	Funding (in millions)	FTE
FY02		1210
FY05	\$52	853
FY09	\$58.7	1004
FY14	\$ 56	780
FY19	\$57.5	660

FY 19 Performed Actions and FTE breakout

Facility Type	# Total inspections
	2019
Air Pollution	
Air Operating Sources	28
SM80	25
Offsite ACE	14
Hazardous Waste	
TSDf	9
LQG (Traditional)	64
LQG Pharmacies	15
SQG	41
Multimedia (Air & RCRA)	
ACMS	103

Note: SQGs are a subset of ACMS

Compliance & Enforcement	CERO	NERO	SERO	WERO	TOTAL
FFY19 FTE	3.12	5.6	3.01	4.67	16.4

Data System Architecture/Reporting

BAW staff activities (inspection and enforcement actions) are recorded and documented in MassDEP’s FMF and SMS databases. Activities are recorded by the 15th of the month following the activity. Queries against these databases are executed after the 15th of each month and appropriate entries are manually entered into ICIS (Air Quality) by the end of each month; RCRA entries are made directly to the federal system of record. Periodic QA/QC allows for capture of tardy entries and any necessary corrections.

Clean Air Act Findings

CAA Element 1 - Data

Finding 1-1

Meets or Exceeds Expectations

Summary:

Both the file review metrics and the data metrics indicate that MassDEP does a very good job of entering the majority of required data into ICIS-Air in a timely fashion; however, with regards to untimely compliance monitoring activities, the majority of the 32 FCEs and 4 annual compliance certification reviews reported to ICIS-Air in an untimely manner were significantly late (the majority reported to ICIS-Air between 20 days and 50 days late, with a couple FCEs entered more than 10 months late and the 4 annual compliance certification reviews entered 4 to 5 months late).

Explanation:

A review of Metric 3a2 of the Data Metric Analysis (DMA) indicates that MassDEP had one newly identified HPV in FFY 2019, which was entered into ICIS-Air by MassDEP in a timely manner (within 60 days of being identified as an HPV).

A review of Metric 3b1 of the DMA indicates that 36 out of 294 compliance monitoring activities (12.2%) were entered into ICIS-Air in an untimely manner (after 60 days of the activity). A total of 32 FCEs and 4 annual compliance certification reviews were reported as being entered late. These untimely compliance monitoring activities were scattered between the four regional offices and ranged from being a couple of days late to over 10 months late, with most being 20 to 50 days late.

A review of Metric 3b2 of the DMA indicates that 2 out of 62 stack tests (3.2%) were reported into ICIS-Air in an untimely manner (after 120 days of the activity).

A review of Metric 3b3 of the DMA indicates that 4 enforcement-related minimum data requirements (MDRs) out of 84 (4.8%) were entered into ICIS-Air in an untimely manner.

A review of the DMA for Metric 3a2, 3b1, 3b2, and 3b3 indicates that MassDEP exceeded or well exceeded the national average for these metrics. As a result, a “Finding Level” of “Meets or Exceeds Expectations” is appropriate here; however, EPA has concerns regarding the compliance monitoring activities entered into ICIS-Air significantly late and requests that MassDEP focus more attention in this area.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State %
3a2 Timely reporting of HPV determinations [GOAL]	100%	42.1%	1	1	100%
3b1 Timely reporting of compliance monitoring MDRs [GOAL]	100%	85.7%	258	294	87.8%
3b2 Timely reporting of stack test dates and results [GOAL]	100%	69.4%	60	62	96.8%
3b3 Timely reporting of enforcement MDRs [GOAL]	100%	74.4%	80	84	95.2%

State Response:

None.

Recommendation:

Rec #	Due Date	Recommendation
		None.

CAA Element 1 - Data

Finding 1-2

Area for State Attention

Summary:

The applicable File Review Metrics, DMA metrics, and Data Verification Metrics (DVM) indicate that MassDEP has had issues regarding the completeness and accuracy of data entered into ICIS-Air.

Explanation:

A comparison of Metric 1h1 of the DVM (Total Amount of Assessed Penalties) for FFY 2019 with the MassDEP information found in its files for this metric for FFY 2019 reveals some inconsistencies. The detailed breakdown of Metric 1h1 reports that a penalty in the amount of \$2,875 was assessed by MassDEP for one particular source. The applicable case file documents indicate that although this penalty was initially assessed, it was not collected, and instead, the source conducted a supplemental environmental project in the amount of \$7,210 to resolve the case. ICIS-Air has not been updated to reflect that no penalty payment was made. In another instance, the detailed breakdown of Metric 1h1 reported that a penalty of \$3,520 was collected from one particular source. The applicable case file documents describe that although this

penalty was initially collected, it was later determined by MassDEP that no violation occurred, and the penalty was refunded to the source. ICIS-Air has not been updated accordingly to reflect that no penalty was paid. Lastly, the detailed breakdown of Metric 1h1 reports that a penalty in the amount of \$4,085 was collected from a particular source for Clean Air Act (CAA) violations and a penalty in the amount of \$5,000 was paid for Resource Conservation and Recovery Act (RCRA) violations. The applicable case file documents describe that the only penalty paid was \$5,000 and it should have been apportioned between CAA and RCRA.

A review of Metric 5e of the DMA (Reviews of Title V Annual Compliance Certifications Completed) indicates that MassDEP conducted certification reviews at 109 out of 114 sources (95.6%) where Title V annual compliance certifications were due in FFY 2019. Upon further review, it was found that 4 of the missing annual certification reviews were for major sources for which Title V permits had yet to be issued and so annual compliance certifications were not yet required to be submitted. The remaining annual certification review was completed late (on January 30, 2020). Therefore, MassDEP actually reviewed 109 out of 110 annual compliance certifications in a timely manner (99.1%). MassDEP well exceeded the national average in this area.

A review of Metric 7a1 (FRV Discovery Rate Based on Evaluations of Active CMS Sources), for both FFY 2018 (3 identified FRVs were from FFY 2018 whose files were selected for review for other reasons) and FFY 2019, and comparing Metric 7a1 with the files reviewed, indicates that MassDEP did not report federally-reportable violations (FRVs), as required by EPA policy, for 3 facilities.

A review of Metric 8a of the DMA (Discovery Rate of HPVs at Major Sources) indicates that, for FFY 2019, MassDEP identified 1 HPV. EPA's review of 11 Title V major source files identified two additional sources that should have been identified as HPVs (one source for a failed stack test in FFY 2017 for a nitrogen oxide emission standard and one source for a failed stack test in FFY 2019 for a nitrogen oxide emission standard).

Based on the file reviews, the following data completeness issues were also found: one stack test was not reported to ICIS-Air; one informal enforcement action taken at an SM-80 source was not reported to ICIS-Air; the review date for 1 annual compliance certification did not match between ICIS-Air and the file reviewed; and a failed noise test was reported in ICIS-Air as a failed emissions test.

In total, 24 files out of 33 files reviewed were accurately reflected in ICIS-Air.

Because the volume of MDRs required to be entered by MassDEP was significant compared to the number of MDRs that had completeness issues a "Finding Level" of "Area for State Attention" is the most appropriate to use here.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State %
2b Files reviewed where data are accurately reflected in the national data system [GOAL]	100%		24	33	72.7%

State Response:

See CAA 4.1 for response to unreported federally-reportable violations noted above.

CAA Element 2 - Inspections

Finding 2-1

Meets or Exceeds Expectations

Summary:

MassDEP met almost all of its alternative CMS Plan full compliance evaluation (FCE) commitments. The only FCE commitments not met were for 3 SM-80 sources (EPA granted approval for one of these SM-80 FCEs to be pushed back to FFY 2020 due to enforcement sensitivity).

As previously discussed above, in Finding 1-2 of this report, a review of Metric 5e of the DMA (Reviews of Title V Annual Compliance Certifications Completed) indicates that MassDEP conducted annual certification reviews at 109 out of 110 sources (99.1%) where Title V annual compliance certifications were due in FFY 2019. The remaining annual certification review was completed late (on January 30, 2020). MassDEP well exceeded the national average in this area.

Explanation:

A review of Metric 5a of the DMA (FCE Coverage at Majors and Mega-Sites) indicates that MassDEP conducted FCEs at 48 out of 48 Mega-site/Title V major sources required to be inspected with an FCE in FFY 2019.

A review of Metric 5b of the DMA (FCE Coverage at SM-80s) indicates that MassDEP conducted required FCEs at 26 out of 29 SM-80 sources required to be inspected with an FCE in FFY 2019. EPA granted approval to push back one of these FCEs to FFY 2020, therefore, MassDEP actually conducted FCEs at 26 out of 28 SM-80 sources required to have an FCE in FFY 2019.

A review of Metric 5c of the DMA (FCE Coverage at Minor and Synthetic Minor (non-SM-80s) Sources that are Part of a CMS Plan and Alternative CMS Facilities) indicates that MassDEP conducted FCEs at 102 out of 102 minor and synthetic minor (non-SM80 sources) on its alternative CMS plan required to be inspected with an FCE in FFY 2019.

A review of Metric 5e of the DMA (Reviews of Title V Annual Compliance Certifications Completed) indicates that MassDEP conducted reviews of 109 out of 114 sources where Title V

annual compliance certifications were due in FFY 2019. A closer look at this data found that 4 of the missing annual compliance certifications were for major sources for which Title V operating permits have yet to be issued. As a result, no annual compliance certifications were due for review in FFY 2019. EPA requested that MassDEP remove the CMS code/flag for these 4 sources until such time as the Title V operating permit is issued to each source. The remaining missing annual compliance certification was done late (on January 30, 2020).

Based on the percentages of compliance monitoring MDR work completed by MassDEP in FFY 2019, a "Finding Level" of "Meets or Exceeds Expectations" is appropriate.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State %
5a FCE coverage: majors and mega-sites [GOAL]	100%	87%	48	48	100%
5b FCE coverage: SM-80s [GOAL]	100%	93%	26	28	92.9%
5c FCE coverage: minors and synthetic minors (non-SM 80s) that are part of CMS plan or alternative CMS Plan [GOAL]	100%	71.7%	102	102	100%
5d FCE coverage: minor facilities that are part of CMS plan. [GOAL]			0	0	
5e Reviews of Title V annual compliance certifications completed [GOAL]	100%	86.1%	109	110	99.1%

State Response:

CMS code/flag for the 4 sources noted above has been removed.

CAA Element 2 - Inspections

Finding 2-2

Area for State Attention

Summary:

For the most part, MassDEP inspectors wrote comprehensive inspection reports, which included a narrative report and a “Compliance Evaluation Cover Sheet”. This “cover sheet” described, among other things, various information associated with the source and the inspection such as the date and type of inspection conducted, dates that past enforcement actions were taken, date the facility returned to compliance if violations were found, whether a penalty was assessed and collected, and the address and contact information for the source.

In most cases, MassDEP inspectors were conducting thorough full compliance evaluations (FCEs) and documenting their findings in their CMR reports as described in Chapter IX of the CMS Policy. However, it is important to note that MassDEP has not accepted universal delegation for some federal standards (e.g., 40 CFR Part 63 Subpart 6J (Area Source Boiler NESHAP), applicable to some boilers; 40 CFR Part 63, Subpart 4Z (RICE NESHAP), applicable to some stationary reciprocating internal combustion engines; and, 40 CFR Part 60, Subparts 4I and 4J (Compression Ignition and Spark Ignition NSPS), applicable to newer stationary reciprocating internal combustion engines (manufactured on, or after, the 2005/2006 timeframe). MassDEP does have direct delegation of the above federal standards through the Title V operating permit program. As a result, MassDEP has enforcement authority over the above federal standards only for Title V permitted sources. File review findings indicated that many non-major sources had boilers and/or engines for which compliance determinations were not made for the above standards by MassDEP inspectors because the standards were not delegated to them.

Based on the file review, it was found that 6 FCE compliance monitoring reports (CMRs), for Title V major sources, were not thorough enough.

Explanation:

Of the 33 files reviewed, 22 contained CMR reports for FCEs, 4 contained CMR reports for partial compliance evaluations (PCEs), and 1 contained no CMR for an FCE, but rather an inspection checklist. For the remaining 6 files, the files contained informal and/or formal enforcement actions that were based on source self-disclosures or other information where there were no associated CMRs.

In 6 out of the 23 files reviewed where an FCE was reported as being done, the CMR reports lacked documentation to show that the inspectors had evaluated compliance and made compliance determinations for each applicable regulation that applied at a facility.

In 5 files reviewed, all concerning Title V major sources, the CMRs did not provide compliance determination information for some federal standards that were applicable to each source, for which MassDEP has direct delegation through the Title V operating permit program (e.g., Area Source Boiler NESHAP, RICE NESHAP and/or Compression Ignition/Spark Ignition NSPS). In 4 of these instances, regarding engines subject to either the federal NESHAP for stationary reciprocating internal combustion engines (RICE NESHAP) or the federal NSPS standards (Compression Ignition/Spark Ignition NSPS), a compliance determination was not made with regards to whether the proper inspection and maintenance logs and/or operating logs were being kept and proper work practices were being performed for blackstart and emergency engines. In 1 instance, the CMR report indicated that a boiler maintained at a source was subject to the biennial tune-up requirements of the Area Source Boiler NESHAP but did not indicate if the boiler tune-ups were being performed.

In 1 file reviewed, concerning a Title V major source, where an offsite FCE was conducted at a combustion source, there was no narrative CMR report. Instead, MassDEP used an "Air Compliance Evaluation Checklist", in lieu of a written CMR report. Because MassDEP issued a

comprehensive information request to the facility in FFY 2018 to ascertain compliance with many federal standards, for which compliance determinations could not be readily made, and because MassDEP was in the process of reviewing the information request response when the offsite FCE was conducted, EPA found the file to be mostly satisfactory (a footnote found in the checklist indicates that the checklist will be updated once MassDEP completes its review of the information request response). The checklist only included a limited narrative in a footnote, along with applicable equipment operated by the source, and a list of documentation reviewed, but in some instances, not the findings of such reviews. In the last SRF report, dated December 10, 2015, EPA made a recommendation to MassDEP requesting that they update their checklist for offsite FCEs to include a narrative section and encourage regional staff conducting inspections to summarize their observations of their review in this new section. The checklist did not appear to have been updated in this instance.

Most of the CMRs did not include a narrative section on whether the findings from the inspection were relayed to the source during the inspection. MassDEP indicated that its inspectors do conduct an out-briefing to summarize their findings to facility representatives. In accordance with the CMS policy, MassDEP should update its CMRs to include a narrative section regarding the findings relayed by the inspector to the source during the inspection. In addition, EPA believes it would be helpful if MassDEP would provide a copy of its finalized inspection report to the facility associated with each inspection.

Out of the 22 files reviewed for FCEs with a CMR, 16 of the CMR reports were written within 30 days (some within a week) of the inspection, 5 were written between 30 and 60 days of the inspection and one CMR report was written 86 days after the inspection. EPA has a general policy that inspection reports should be completed within 60 days of conducting an FCE or PCE, but in no case later than 90 days. EPA Region I's Air Compliance Section has had a 30-day policy in effect for several years.

Based on the file review, a "Finding Level" of "Area for State Attention" is appropriate here; however, MassDEP needs to review and make compliance determinations for all applicable requirements pertaining to a source to ensure a complete FCE is conducted. To that end, EPA strongly requests that, for Title V sources where MassDEP has direct delegation of applicable federal standards, especially with regards to boilers subject to the Area Source Boiler NESHAP and engines subject to either the RICE NESHAP or Compression Ignition/Spark Ignition NSPS standards, MassDEP inspectors review the "Pre/Post Inspection Activity Report Form" for each source, which provides, towards the end of the form, a list of fuel burning equipment, to ensure that appropriate compliance determinations are made for all engines and boilers listed on the form for all applicable federal and state requirements.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State %
6a Documentation of FCE elements [GOAL]	100%		17	23	73.9%
6b Compliance monitoring reports (CMRs) or facility files reviewed that provide sufficient documentation to determine compliance of the facility [GOAL]	100%		27	33	81.8%

State Response:

MassDEP will update the FCE inspection checklist to positively affirm the evaluation of all applicable requirements and add a section on findings relayed to facility representatives on inspection. Full facility inspection reports are provided to sources upon request.

Recommendation:

Rec #	Due Date	Recommendation
		None.

CAA Element 3 - Violations

Finding 3-1

Meets or Exceeds Expectations

Summary:

MassDEP does an excellent job of documenting violations and making accurate compliance determinations.

Explanation:

In 27 out of the 33 files reviewed, there were actionable violations (the violations found in 3 files were not federally-enforceable violations) where either informal and/or formal enforcement actions were taken. In all 27 files with actionable violations, MassDEP made accurate compliance determinations based on inspections, stack test report reviews, and various other types of record and report reviews. Regarding the review of documentation available for the remaining 6 files, EPA agrees that there were no violations to be identified.

A review of support Metric 7a1 related to the discovery rate of federally-reportable violators (FRVs) based on inspections at active CMS sources indicates that MassDEP was above the national average for this metric.

Based on the above, a “Finding Level” of “Meets or Exceeds Expectations” is appropriate here.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State %
7a Accurate compliance determinations [GOAL]	100%		33	33	100%
7a1 FRV 'discovery rate' based on inspections at active CMS sources		7.8%	38	377	10.1%

State Response:

None.

CAA Element 3 - Violations

Finding 3-2 - Violations

Meets or Exceeds Expectations

Summary:

MassDEP does an excellent job of identifying violations.

For FFY 2019, MassDEP identified 1 HPV that was reported to ICIS-Air in a timely manner. Based on the file review, EPA determined that 2 additional sources should have been identified as HPVs. 2 Title V major sources failed their NOx emissions tests (1 in FFY 2017 and 1 in FFY 2019). Neither of these Title V major sources were identified as HPVs by MassDEP.

For the 33 files reviewed, 18 of the files included FRVs that MassDEP reported to ICIS-Air and 1 file included an HPV that MassDEP reported to ICIS-Air. Based on the file review, EPA determined that 3 additional sources, where enforcement was taken by MassDEP, should have been reported as FRVs in ICIS-Air but were not (2 in FFY 2019 and 1 in FFY 2018). In addition, as described in the last paragraph, EPA reviewed 2 files where HPVs should have been identified where neither an FRV nor HPV was reported in ICIS-Air. Accurate HPV determinations were made in 22 out of the 24 files reviewed that had federally-reportable violations.

Explanation:

HPV determinations are a collaborative effort between MassDEP and EPA. On an ongoing basis, at a minimum of once per quarter, MassDEP and EPA discuss the enforcement actions (informal and formal) taken by MassDEP to determine whether any of the violations meet the HPV criteria. The ultimate HPV determination is mutually agreed to by both MassDEP and EPA. In 2 of the files reviewed where failed stack tests occurred (1 failed test in FFY 2017 and 1 failed test in FFY 2019), it was noted that no enforcement was taken by MassDEP. The file regarding the

failed stack test from FFY 2017 was reviewed to include a representative sampling of failed stack tests for review. Because no enforcement was taken, it is likely these two failed tests were not discussed by MassDEP and EPA during the quarterly meetings because the HPV discussions focused on enforcement actions taken rather than violations identified. In the future, these discussions will be based on violations identified during each quarter.

Metric 8a related to the high priority violator (HPV) discovery rate at major sources indicates that MassDEP was slightly below the national average for this metric.

Based on the above, a “Finding Level” of “Meets or Exceeds Expectations” is appropriate here.

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State %
13 Timeliness of HPV Identification [GOAL]	100%	90.6%	1	1	100%
8a HPV discovery rate at majors		2.3%	1	115	0.9%
8c Accuracy of HPV determinations [GOAL]	100%		22	24	91.7%

Relevant Metrics:

State Response:
None.

Due Date	Recommendation
	None.

Recommendation:

CAA Element 4 - Enforcement

Finding 4-1

Area for State Improvement

Summary:

In the majority of files reviewed, MassDEP did an excellent job of taking appropriate enforcement for non-HPVs; however, in 3 instances for Title V major sources where violations were found (1 for late NSPS Subpart KKKK testing and 2 for failed nitrogen oxide emissions testing) that should have been considered HPVs under the HPV Policy, MassDEP did not take

any formal enforcement actions. In addition, in the 2 files reviewed for failed nitrogen oxide emissions testing, no informal enforcement action was taken either.

Explanation:

MassDEP took informal and/or formal enforcement actions against 27 out of the 33 sources selected for a file review (4 of which were for FFY 2018). A total of 15 files reviewed included informal enforcement actions only, 11 files included formal enforcement actions only and 1 file included both an informal and a formal enforcement action.

For the 15 files reviewed with informal enforcement only, the enforcement document included corrective actions to be taken to achieve compliance. For the 12 files selected where formal enforcement was taken, the enforcement document included corrective actions to be taken to achieve compliance. In all but a couple of these files, MassDEP issued what it calls “Return to Compliance Letters”, indicating the date the facility returned to or achieved compliance. In the other cases where a “Return to Compliance Letter” was not issued, the “Compliance Evaluation Cover Sheet” that MassDEP utilizes indicated that the sources had returned to compliance without the need for a letter.

For 3 files reviewed regarding Title V major sources, violations were documented where EPA believes formal enforcement should have been taken but was not. In 1 file reviewed, the source had failed to complete testing for a federal NSPS standard in a timely manner. In the other 2 files reviewed, the sources had failed nitrogen oxide emissions testing (1 failed test conducted in FFY 2017 and 1 failed test conducted in FFY 2019).

In the case of the late testing for a federal NSPS emissions standard, MassDEP’s Enforcement Steering Committee decided that formal enforcement wasn’t necessary for the following reasons: the violating source was another Massachusetts government-run source; the late testing was for a turbine run by a third party; and the source ultimately conducted the required test that demonstrated compliance. MassDEP did identify this source as an HPV in FFY 2019. EPA believes MassDEP should have followed EPA’s policy for “Timely and Appropriate Enforcement Response to High Priority Violators” and taken formal enforcement in this case.

In the remaining 2 cases where failed nitrogen oxide emissions testing occurred, MassDEP decided to revise the sources’ plan approvals/permits rather than pursue any enforcement. In one case, the source had been operating its four boilers as dual-fuel (No. 6 fuel oil and natural gas) units. Prior to testing in 2017, the facility converted its four boilers to operating solely on natural gas, which resulted in a change to a more stringent nitrogen oxide emission limit that the source could not meet on an individual boiler basis (each boiler was meeting the higher nitrogen oxide limit based on dual-fuel operation). Since the facility had opted to convert its boilers to solely using a cleaner fuel, MassDEP decided rather than taking enforcement it would revise the source’s emission control plan approval/permit to allow the source to meet its nitrogen oxide emission limit by allowing for crossline averaging or “bubbling” of its nitrogen oxide emissions from all four boilers combined rather than having to meet the nitrogen oxide emission limit on each boiler separately. In the second case, MassDEP decided that rather than taking enforcement it would revise the source’s plan approval/permit such that the source could no longer operate its dual-fuel engine on fuel oil and could only operate on natural gas as a means of achieving

compliance with the nitrogen oxide emission limit. EPA believes these 2 sources should have been identified as HPVs and that EPA’s policy for “Timely and Appropriate Enforcement Response to High Priority Violators” should have been followed requiring that formal enforcement be taken against each facility for the failed nitrogen oxide emissions testing.

In the case of the 1 HPV identified, the ECHO Detailed Facility Report “Three-Year Compliance History by Quarter” reports that the HPV “Day 0” was October 23, 2018 and the “Addressed Date” was August 12, 2019. In discussions with MassDEP, they informed EPA that this addressing date was reported in error (this was the date of the “Return to Compliance Letter”). MassDEP stated that the addressing date should have been the date the MassDEP Enforcement Steering Committee” decided not to pursue any formal enforcement, which was December 18, 2018, which would provide an addressing date 56 days after “Day 0”. As discussed above, EPA does not believe this HPV was addressed properly.

A review of MassDEP’s enforcement activities for FFY 2016 through FFY 2019 indicates that there has been a bit of a decrease in enforcement, from a high of 104 enforcement actions reported to ICIS-Air for FFY 2016 to 84 enforcement actions reported to ICIS-Air for FFY 2019. HPV identification has remained steady over this same time frame. It should be noted that due to changes in the national HPV Policy, the number of violations meeting the HPV criteria has decreased.

Based on the above, a “Finding Level” of “Area for State Improvement” is most appropriate here.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State %
10a Timeliness of addressing HPVs or alternatively having a case development and resolution timeline in place	100%		0	3	0%
10a1 Rate of Addressing HPVs within 180 days		47.8%	0	3	0%
10b Percent of HPVs that have been addressed or removed consistent with the HPV Policy [GOAL]	100%		0	3	0%
10b1 Rate of managing HPVs without formal enforcement action		7%	3	3	100%
14 HPV case development and resolution timeline in place when required that contains required policy elements [GOAL]	100%		0	3	0%
9a Formal enforcement responses that include required corrective action that will return the facility to compliance in a specified timeframe, or the facility fixed the problem without a compliance schedule [GOAL]	100%		12	12	100%

State Response:

Facility 1 - The facility switched all boilers to natural gas only and so became subject to a lower emission limit than included in the facility's Operating Permit at that time. The facility utilized "Appendix B bubbling provisions" across the affected units, as allowed in their modified Emissions Control Plan (ECP) to demonstrate overall compliance with the applicable NOx limit. MassDEP did not issue a NON based on restrictions to cleaner fuels, overall reduced emissions, enforceability via the modified ECP, and the flexibilities afforded by Appendix B.

Facility 2 - A tested engine did not meet the applicable dual-fuel NOx limit. Subsequent to the test, the facility secured year-round natural gas availability, and the requirement to run this engine on natural gas only (with the exception of start-up and shutdown) has been made enforceable through a 2019 Title V permitting action. MassDEP did not issue a NON based on permitted restrictions to cleaner fuels, overall reduced emissions, and enforceability via the renewed Operating Permit.

MassDEP accepts EPA recommendation below.

Recommendation:

	Due Date	Recommendation
1	12/31/23	On an ongoing basis, MassDEP and EPA, during their quarterly meetings to discuss state accomplishments and HPVs, especially with regards to violations identified by MassDEP during each quarter, will discuss all violations to ensure that all violations are properly categorized as HPVs, FRVs or neither (for non-federally reportable/non-federally-enforceable violations), and where an HPV is identified, MassDEP and EPA will discuss what enforcement response is most adequate to ensure that EPA’s policy for “Timely and Appropriate Enforcement Response to High Priority Violators” is followed. If by the end of calendar year 2023, MassDEP has properly categorized all violations identified, from the issuance of this report to that time, and is taking appropriate enforcement, EPA will close out this recommendation.

CAA Element 5 - Penalties

Finding 5-1

Meets or Exceeds Expectations

Summary:

MassDEP does an excellent job of assessing penalties that include a gravity component.

MassDEP does an excellent job of documenting in their files that penalties have been collected.

No files were reviewed that would have required the assessment of economic benefit. For each of the 12 files reviewed where penalties were assessed, MassDEP did indicate that there was no economic benefit; however, MassDEP did not provide detailed economic benefit calculations or documentation on why there was no economic benefit, but rather just reported that economic benefit was \$0 or not being assessed.

Explanation:

Based on information from the file review, MassDEP has a well-developed procedure for calculating penalties. MassDEP’s “PenCalc” tool includes detailed sections on gravity and economic benefit. The economic benefit section allows an inspector to include the value of the economic benefit as well as an explanation of how it was calculated (or determined to be insignificant). As discussed in the last SRF report, dated December 10, 2015, it appears that MassDEP inspectors are not making full use of the “PenCalc” tool. In all files reviewed with a penalty, the “PenCalc” tool indicated that MassDEP did look to see if there was any economic benefit, but only reported that economic benefit was \$0 or that economic benefit was not assessed. In each file reviewed with a penalty, EPA believes that the economic benefit would

have either been \$0 or some insignificant amount (i.e., less than \$5,000) such that economic benefit would not necessarily need to have been assessed and collected (for minor recordkeeping, reporting and work practice violations), but there is some concern with MassDEP's lack of documentation for when they do not seek economic benefit. In the last SRF report, EPA made a recommendation to MassDEP that it send a directive to its regional staff conducting inspections informing/reminding them to make full use of the tools within PenCalc to document economic benefit determinations. EPA discussed this issue with MassDEP during this round of the SRF and was informed that separate economic benefit documentation is only kept when significant economic benefit is found (i.e., at, or above, \$5000). If there is significant economic benefit, documentation regarding the calculated economic benefit is captured in a case summary/case fact sheet. Where economic benefit is not found or is insignificant, which is usually the case, MassDEP staff use the canned response field available within their PenCalc Tool that reports "no economic benefit" or "\$0" to verify that the economic benefit portion of the penalty was looked at and determined to be insignificant. In the future, EPA would like to see more robust documentation such as the results from "BEN" calculations.

For the 12 files reviewed with formal enforcement with penalties, it should be noted that none of these formal enforcement actions were issued to HPVs. It should also be noted that the penalty for one source in the amount of \$2875 was not collected. Instead, MassDEP decided to allow the source to conduct a supplemental environmental project costing \$7210 in lieu of paying the penalty. In another case, MassDEP determined that a violation self-reported by a source was in error and refunded the penalty payment.

MassDEP issues Orders on Consent, therefore, there usually is not any difference between the initial and final penalty. In the files reviewed, no such penalty differences were identified.

Also, as described in the last SRF report, it is worth noting that MassDEP has a practice of sometimes suspending a portion of the penalty assessed in an Order provided that the source does not violate any provision of the Order within one year of the effective date of the Order.

Based on the above, a "Finding Level" of "Meets or Exceeds Expectations" is appropriate here.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State %
11a Penalty calculations reviewed that document gravity and economic benefit [GOAL]	100%		12	12	100%
12a Documentation of rationale for difference between initial penalty calculation and final penalty [GOAL]	100%		12	12	100%
12b Penalties collected [GOAL]	100%		11	11	100%

State Response:

MassDEP will include a statement of economic benefit when it is applied (e.g. when a penalty is raised) and will include a statement when it is not applied, and why, as appropriate.

Resource Conservation and Recovery Act Findings

RCRA Element 1 — Data						
Finding 1-1	Meets or Exceeds Expectations					
Summary	<p>MassDEP has done an excellent job at getting data into the RCRAInfo system. All files reviewed, but one, had accurate data entered. There is a small backlog of secondary violators that have not been returned to compliance. MassDEP made a significant effort at resolving this issue and has reduced this universe from 140 to 32 and is continuing to complete the cleanup of this data.</p>					
Explanation	<p>There was one case file that did not have a penalty payment amount entered when the penalty had been paid. All other files review had accurate information entered into RCRAInfo.</p> <p>MassDEP made a concerted effort during the review process to address its legacy list of long-standing secondary violators. Most of the facilities on the long-standing secondary violators list were on the list because of historic data issues and were in the system because data had not updated or had not completely updated, rather than facilities that were actually out of compliance. MassDEP devoted precious resources and assigned the list to inspectors who reviewed files and updated information in RCRAInfo. MassDEP has reduced the number of longstanding secondary violators from 140 to 32. MassDEP continues to work on the remainder of the list.</p>					
Relevant metrics	Metric ID Number and Description	Nat l Go al	Natl Avg	St ate N	Sta te D	Sta te % or #
	2a Long-standing secondary violators					32
	2b Complete and accurate entry of mandatory data	100 %		34	35	97. 1%
State response	None.					
Recommendation	None.					

RCRA Element 2 — Inspections

Finding 2-1 Meets or Exceeds Expectations

Summary MassDEP has taken advantage of LQG flexibility that is offered through the RCRA CMS. MassDEP completed all of its mandatory inspections.

Explanation MassDEP has taken advantage of LQG flexibility in an alternative compliance strategy for the several years. MassDEP has identified small quantity generators that are: high risk, repeat violators or acting out of status. MassDEP has found a higher level of non-compliance at the flex facilities. The reduction in LQG inspections and LQG five-year coverage as a result of LQG flexibility is reflected in the data. MassDEP inspected a significant number of smaller generators as part of its alternative compliance strategy, and again, inspected significantly more total facilities than any other state in Regions I. MassDEP inspected 318 facilities in FY19.

MassDEP is legislatively mandated to inspect its entire TSDF universe every year as opposed to once every two years.

Relevant metrics

Metric ID Number and Description	Nat l Go al	Natl Avg	St ate N	St ate D	Stat e % or #
5a Two-year inspection coverage of operating TSDFs	100 %	89.9 %	10	10	100 %
5b Annual inspection coverage of BR LQGs	20 %	14.7 %	58	58 4	9.9 %
5d1 Number of SQGs inspected			11 1		

State response None.

Recommendation None.

RCRA Element 2 — Inspections

Finding 2-2 Meets or Exceeds Expectations

Summary Most inspection reports are written with sufficient detail to determine compliance and are written in a very timely manner.

Explanation

Most inspection reports reviewed during the file review included facility information, operations and waste generated and sufficient detail to identify violations, sometimes including photos or records to substantiate violations. There was an improvement in level of consistency of reports from region to region since the FY14 review. All of the regional offices use a version of a standard format for documenting inspections. The files that included reports with insufficient detail, were completed using a different format. Two of the three files were for a SQG and a VSQG. All three resulted in low-level violations and informal enforcement.

One of 35 inspection reports in the files was not dated, so there was no way to tell if the report had been completed in a timely manner. However, the informal enforcement action was issued in less than a month, so it is presumed that the report was completed in a timely manner.

Relevant metrics	Metric ID Number and Description	Natl Goal	Natl Avg	State	State	State
				N	D	% or #
	6a Inspection reports complete and sufficient to determine compliance	100%		32	35	91.4%
	6b Timeliness of inspection report completion	100%		34	35	97.1%

State response None.

Recommendation None.

RCRA Element 3 — Violations						
Finding 3-1	Meets or Exceeds Expectations					
Summary	MassDEP does a good job of identifying violations at a high percentage of inspections and identifying SNCs, when appropriate.					
Explanation	MassDEP exceeds the national average in both identification of violations and identification of SNCs. The file reviews were consistent with the statistics indicated by the data metrics. The review of the files also showed that compliance determinations and SNC determinations were being conducted appropriately.					
Relevant metrics	Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State % or #
	7b Violations found during inspections		38.9%	149	276	54%
	>					
	8a SNC identification rate		1.6%	22	511	4.3%
	7a Accurate compliance determinations	100%		35	35	100%
8c Appropriate SNC determinations	100%		11	11	100%	
State response	None.					
Recommendation	None.					

RCRA Element 3 — Violations

Finding 3-1	Meets or Exceeds Expectations					
Summary	Most SNCs were identified within 150 days of Day Zero.					
Explanation	<p>The data metric shows that the SNC dates were not all within 150 days of day zero. AS has been described in previous reviews, MassDEP negotiates and issues Administrative Consent Orders for most cases. These actions are unilateral and MassDEP has found that its practice of issuing Consent Orders avoids appeals and lengthy litigation. There has been a long-standing agreement between Region I and MassDEP that cases are not entered as SNC until the Consent Order is finalized since the specifics of violations may not be final until the Consent Order is issued. Some FY19 case settlements were impacted by the Covid 19 pandemic. Also, some cases in which SNCs were not identified within the timeframe were for multi-media violations which can result in protracted evidence collection and/or negotiations. Considering these facts, MassDEP, and without a pandemic, MassDEP generally brings and settles cases in a timely manner.</p>					
Relevant metrics	Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State % or #
	8b Timeliness of SNC determinations	100%	84.2%	5	22	22.7%
State response	None.					
Recommendation	None.					

RCRA Element 4 — Enforcement						
Finding 4-1	Meets or Exceeds Expectations					
Summary	MassDEP took appropriate action for all of the cases reviewed and brought actions that returned facilities to compliance.					
Explanation	<p>The file review showed that MassDEP is bringing actions for cases that represent RCRA significant noncompliance. Since MassDEP often issues multi-media enforcement actions, there were also cases reviewed for which lower-level RCRA violations were included in a formal enforcement action for another media. One file reviewed had not been returned to compliance since there was an on-going discussion about the need to submit a biennial report for a facility that was no longer LQG.</p> <p>MassDEP sets compliance measures and timeframes for return to compliance in its actions and often re-inspects a facility to confirm return to compliance.</p>					
Relevant metrics	Metric ID Number and Description	Nat l Go al	Natl Avg	St ate N	St ate D	Stat e % or #
	9a Enforcement that returns violators to compliance			28	29	96.6 %
	10b appropriate enforcement taken to address violations			29	29	100 %
State response	None.					
Recommendation	None.					

RCRA Element 4 — Enforcement

Finding 4-2 Meets or Exceeds Expectations

Summary Most MassDEP RCRA enforcement actions were issued within 360 days of Day Zero.

Explanation MassDEP reviewed each of the cases listed in metric10(a) that showed that enforcement was not taken in a timely manner and provided supporting information to EPA for the reason that it exceeded 360 days. Of the nine SNCs not addressed in a timely manner, one of the line items, Safety Kleen (MAD982755639,) had no open SNY and appears to be a data error. An additional 5 cases complexities that drove the settlement of the case beyond 360 days, including the need to reinspect, need to issue a permit, and ability to pay. Of the five, two were resolved within weeks of day 360.

The remaining 3 cases are actively being negotiated because of complexities.

MassDEP issues Administrative Consent Orders in most cases, rather than initial and final actions, and in some instances, cases are multi-media since most inspections are multi-media. MassDEP does not close an action until all media violations have returned to compliance AND penalties have been paid. Most matters are addressed and fully resolved in a very timely fashion. In FY19, 68 % were completed in a timely manner and those that exceeded 360 days were all justified, in writing, by MassDEP.

Also, Covid-19 pandemic created delays in resolving cases.

Relevant metrics	Metric ID Number and Description	Nat	Natl	St	St	Stat
		l	Avg	ate	ate	e %
		Go		N	D	or #
		al				
	10a Timely enforcement taken to address SNC	80	78.6	17	25	68%
		%	%			

State response None.

Recommendation None.

RCRA Element 5 — Penalties

Finding 5-1	Area for State Attention					
Summary	MassDEP is assessing penalties for significant violations that include a gravity and economic benefit component, where applicable.					
Explanation	<p>The file review showed that MassDEP is assessing and collecting penalties and economic benefit for cases where there is significant noncompliance. Penalties are consistent with MassDEP’s policies and consider economic benefit, when appropriate. Documentation that penalties were collected was present in 9/11 files reviewed. The penalties had been paid for the two cases where no documentation was included in the file.</p> <p>The entry of the penalty amount into RCRAInfo is addressed in Element 1.</p> <p>AI</p>					
Relevant metrics	Metric ID Number and Description	Nat l Go al	Natl Avg	St ate N	St ate D	Stat e % or #
	11a Penalty calculations include gravity and economic benefit	100%		11	11	100%
	12b Penalties collected	100%		9	11	81.8%
State response	None					
Recommendation	None.					

RCRA Element 5 — Penalties

Finding 5-2	Area for State Attention					
Summary	MassDEP did not always provide clear documentation of how it arrived at an amount for economic benefit and initial/final gravity amounts.					
Explanation	MassDEP is assessing penalties and economic benefit for significant violations. Many of MassDEP’s formal actions are for violations in more than one media. MassDEP’s cases and penalty assessments are presented before a Regional Enforcement Review Committee (RERC.) In most cases reviewed during the file review, there were memos or fact sheets that clearly justified changes in penalties and how the case team arrived at a number for economic benefit. In some cases, the reductions were numerically represented, but there was no explanation as to why they had been made.					
Relevant metrics	Metric ID Number and Description	Natl Goal	Natl Avg	S t a t e D N	Sta te D #	State % or #
	12a Documentation on difference between initial and final penalty	100%		9	11	81.8%
State response	MassDEP will include a statement of economic benefit when it is applied (e.g., when a penalty is raised) and will include a statement when it is not applied, and why, as appropriate.					
Recommendation	None.					