



REGION 3 ADMINISTRATOR

PHILADELPHIA, PA 19103

February 26, 2025

Ms. Serena McIlwain
Secretary
Maryland Department of the
Environment
1800 Washington Boulevard
Baltimore, Maryland 21230
mde.secretary@maryland.gov

Dear Ms. McIlwain:

We would like to thank you and your staff for the cooperation you provided to the U.S. Environmental Protection Agency (EPA), Region 3 office to finalize the State Review Framework (SRF) for the Maryland Department of the Environment (MDE). The SRF is a program designed so that the EPA may conduct oversight of state compliance and enforcement programs to ensure that states are implementing these programs in a nationally consistent and efficient manner.

The EPA conducted the Round Five SRF review of MDE for the Clean Air Act (CAA) Stationary Source, Resource Conservation and Recovery Act (RCRA) Hazardous Waste, and Clean Water Act National Pollutant Discharge Elimination System (NPDES) programs. The review evaluated compliance and enforcement data and files from federal fiscal year 2023. The enclosed report includes findings from the review and planned actions to facilitate program improvements.

The MDE's CAA program performed well with only one finding in the "Needs Improvement" finding level which requires the implementation and tracking of recommendations. That finding is related to the documentation of the difference between the initial civil penalty and the penalty amount presented to the company. Otherwise, the CAA program has demonstrated their ability to perform above average in data, inspections, violations, and enforcement elements of the SRF. The EPA found that CAA data is entered timely and accurately into ICIS-Air; MDE met their negotiated frequency for CAA inspections; high priority violation (HPV) and Federally Reportable Violation (FRV) determinations are made accurately and timely; corrective actions for violations are consistent with the HPV policy; and CAA penalty calculations included both gravity and economic benefit components.

The MDE's NPDES program calls for improvement in data, inspections, enforcement, and penalties elements of the SRF. The NPDES program did perform well under the violations element with 95% accuracy of the reviewed compliance determinations. The EPA found that data is entered timely,

however accuracy is lacking; inspection reports are complete and timely, however MDE did not meet their negotiated frequency of NPDES inspections; enforcement responses addressed violations in a timely manner, the enforcement actions did not always return the facility to compliance timely; and NPDES penalties did not include both a gravity and economic benefit component.

The MDE's RCRA program performed well in data and enforcement elements of the SRF review, however the hazardous waste program calls for improvement in inspections, violations, and penalties elements. The EPA found that MDE enters the mandatory data elements into [RCRAInfo](#) accurately; MDE completed inspection reports in a timely manner, however the reports were found to be lacking required information to accurately assess compliance; compliance determinations were inconclusive or inaccurate; enforcement actions were found to be appropriate and consistently returned the violators to compliance; and penalties generally did not include an economic benefit component.

The EPA is recommending the creation of a Recommendation Implementation Workgroup that will include staff and managers from both the EPA and MDE to meet quarterly and review the progress of each of the recommendations found in MDE's Round Five SRF report. The EPA's SRF Coordinator, Erin Malone, will coordinate the meetings to ensure that these issues uncovered during the SRF are addressed timely and appropriately. If you would want to participate in such a coordination effort, please let [Erin Malone](#), of my staff, know who from the MDE should be included in these quarterly check-in calls.

We look forward to continuing to work with you to improve program performance in pursuit of our shared mission to protect public human health and the environment. If you have any questions, please feel free to contact me or have your staff contact Karen Melvin, Director of the Enforcement and Compliance Assurance Division, Four Penn Center, 1600 John F. Kennedy Boulevard, Philadelphia, Pennsylvania 19103 at 215-814-3275 or Melvin.Karen@epa.gov.

Sincerely,

Catherine A. Libertz
Acting Regional Administrator

ENCLOSURES

1. Maryland SRF Round 5 Report

STATE REVIEW FRAMEWORK

Maryland

**Clean Water Act
Clean Air Act and
Resource Conservation and Recovery Act**

Implementation in Federal Fiscal Year 2023

**U.S. Environmental Protection Agency
Region 3**

**Final Report
February 27, 2025**

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 5th Round (FY2024-2028) of reviews, preceded by Round 4 (FY2018-2023), 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](#).

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 is 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)

Dates of remote file review: July 15-19, 2024

Environmental Protection Agency Enforcement and Compliance Assurance Division contacts include:

Dominic Cotton, NPDES Inspector

Monica Crosby, NPDES Inspector

Allison Gieda, NPDES Inspector

Amrita Gupta, NPDES Inspector

Ingrid Hopkins, NPDES Inspector

Shane McAleer, NPDES Inspector

Kaitlin McLaughlin, NPDES Inspector- CWA Lead

Edward Simas, NPDES Inspector

Angela Weisel, NPDES Inspector

Maryland Department of the Environment contacts include:

Andrew Gosden, Program Manager, Compliance Program, Water & Science Administration

Arno Laud, Deputy Program Manager, Compliance Program, Water & Science Administration

Patrick Noyes, Enforcement Division Chief, Compliance Program, Water & Science Administration

Clean Air Act (CAA)

Dates of remote file review: July 15-19, 2024

Environmental Protection Agency Enforcement and Compliance Assurance Division contacts include:

Samantha Deegan, Air Section Program Coordinator- CAA Co-lead

Dean Deluca, CAA Inspector- CAA Co-lead

Kyle Krall, CAA Inspector

Stafford Stewart, CAA Inspector

Scott Yanos, CAA Inspector

Maryland Department of the Environment contacts include:

Daniel Davis, Natural Resources Planner V

Steven Lang, Regulatory Compliance Engineer Supervisor

Pars Ramnarain, Acting Program Manager Air Quality Compliance Program

Alison Ray, Natural Resources Planner III

Resource Conservation and Recovery Act (RCRA)

EPA Region 3's Enforcement and Compliance Assurance Division (ECAD), RCRA Section staff conducted the SRF Round 5 (FY2023) review of the Maryland Department of the Environment (MDE) Resource Conservation and Recovery Act (RCRA) enforcement program. The goal of the review was to ensure that MDE has been conducting complete and timely inspections followed by sufficient and timely-written inspection reports, making accurate compliance determinations, issuing timely and appropriate enforcement actions that return violators to compliance, and calculating and collecting a penalty when appropriate.

Dates of remote file review: July 8-10, 2024

Environmental Protection Agency Enforcement and Compliance Assurance Division contacts include:

Stephen Forostiak – Acting RCRA Section Chief

Rick Greenwood, RCRA Inspector- RCRA Co-lead

Rebecca Serfass, RCRA Inspector- RCRA Co-lead

Environmental Protection Agency Land, Chemicals, & Redevelopment Division contacts include:

Jacqueline Morrison - MD Hazardous Waste State Program Manager

Maryland Department of the Environment contacts include:

Brian Coblentz - Chief, Compliance Division, Solid Waste Program/Land and Materials Administration, MDE

Ed Dexter - Administrator, Solid Waste Program, MDE

EPA Region 3 SRF Coordinators

Kurt Elsner

Erin Malone

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)

MDE is exceeding the national goal for the data entry rate of permit limit and discharge monitoring report (DMR) for major and non-major facilities.

Of the files reviewed, 86.4% of inspection reports were complete and sufficient to assess permit requirements at the facility and document inspector observations.

In 90% of the files reviewed, inspection reports were completed in a timely manner.

Clean Air Act (CAA)

MDE entered their data into ICIS timely and accurately.

MDE met the negotiated frequency for compliance evaluations for major and synthetic minor 80% sources (SM-80) in their compliance monitoring strategy (CMS) universe and reviewed all Title V Annual Compliance Certifications (TVACC) scheduled to be reviewed. All compliance monitoring reports (CMR) reviewed provided sufficient documentation to determine facility compliance and document the full compliance evaluations (FCE) elements.

MDE did a thorough and comprehensive job in making high priority violation (HPV) and federal reporting violation (FRV) determinations and timely identified HPVs.

MDE included corrective actions in formal responses and took timely and appropriate enforcement action consistent with the HPV policy.

All penalty calculations reviewed included both a gravity component and an economic benefit component.

Resource Conservation and Recovery Act (RCRA)

The SRF Round 5 revealed that MDE consistently completed inspection reports in a timely manner. The average inspection report completion time for the 35 files reviewed was 35.2 days. The review team used a 150-day completion timeline, based on EPA's 2003 Hazardous Waste Civil Enforcement Response Policy to determine this finding.

MDE's SNC determinations were consistently made in a timely manner and were appropriate based on the information contained in the inspection report and file.

MDE was found to have taken appropriate enforcement actions to consistently return violators to compliance.

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)

Of the 33 files reviewed, only 24.2% have data accurately reflected in the national data system.

Of the 14 penalty files reviewed, only 14.3% documented both gravity and economic benefit components.

Clean Air Act (CAA)

MDE did not document the difference between the initial civil penalty and the final penalty nor any rationale for that difference.

Resource Conservation and Recovery Act (RCRA)

Only 42.9% of reports included all relevant attachments and contained the appropriate information required to accurately assess facility compliance as required by their registered generator status. Therefore, 57.1% of reports lacked sufficient information to make an accurate compliance determination.

MDE made accurate compliance determinations in 69.7% of the files reviewed, with 30.3% of the files having inconclusive or inaccurate compliance determinations.

Of the seven (7) penalty files that were reviewed, all seven included a gravity component. However, only one penalty included an economic benefit calculation. Therefore, only 14.3% of the files reviewed included both a gravity and economic benefit calculation.

Finding Summary:

CWA Goal Metric	Round 4 Finding Level	Round 5 Finding Level
1b5 - Permit limit data entry rate for major and non-major facilities	Meets or Exceeds Expectations	Meets or Exceeds Expectations
1b6 – Discharge monitoring report (DMR) data entry rate for major and non-major facilities	Meets or Exceeds Expectations	Meets or Exceeds Expectations
2b - Files reviewed where data are accurately reflected in the national data system (except CAFO, Industrial SW and MS4)	Area for Improvement	Area for Improvement
4a1 - Number of pretreatment compliance inspections and audits at approved local pretreatment programs. [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
4a2 - EPA or state Significant Industrial User inspections for SIUs discharging to nonauthorized POTWs	Meets or Exceeds Expectations	Meets or Exceeds Expectations
4a4 - Number of CSO inspections. [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
4a5 - Number of SSO inspections. [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
4a7 - Number of Phase I and II MS4 audits or inspections. [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
4a8 - Number of industrial stormwater inspections. [GOAL]	Meets or Exceeds Expectations	Area for Improvement
4a9 - Number of Phase I and Phase II construction stormwater inspections. [GOAL]	Meets or Exceeds Expectations	Area for Improvement
4a10 - Number of comprehensive inspections of large and medium NPDES permitted concentrated animal feeding operations (CAFOs) [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations

4a11 - Number of sludge/biosolids inspections at each major POTW. [GOAL]	N/A	N/A
5a1 - Percentage of NPDES major facilities with individual or general permits inspected	Meets or Exceeds Expectations	Area for Improvement
5b - Inspections coverage of NPDES non-majors (individual and general permits) [GOAL]	Meets or Exceeds Expectations	Area for Improvement
6a - Inspection reports complete and sufficient to assess permit requirements at the facility and document inspector observations.	Meets or Exceeds Expectations	Meets or Exceeds Expectations
6a - Inspection reports complete and sufficient to assess permit requirements at the facility and document inspector observations.	Meets or Exceeds Expectations	Meets or Exceeds Expectations
7e - Accuracy of compliance determinations [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
9a - Percentage of enforcement responses that returned, or will return, a source in violation to compliance [GOAL]	Meets or Exceeds Expectations	Area for Improvement
10b - Enforcement responses reviewed that address violations in a timely and appropriate manner.	Meets or Exceeds Expectations	Meets or Exceeds Expectations
11a - Penalty calculations reviewed that document and include gravity and economic benefit [GOAL]	Meets or Exceeds Expectations	Area for Improvement
12a - Documentation of rationale for difference between initial penalty calculation and final penalty [GOAL]	Meets or Exceeds Expectations	Area for Attention
12b - Penalties collected [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations

CAA Goal Metric	Round 4 Finding Level	Round 5 Finding Level
2b - Files reviewed where data are accurately reflected in the national data system [GOAL]	Area for Attention	Meets or Exceeds Expectations
3a2 - Timely reporting of HPV determinations [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
3b1 - Timely reporting of compliance monitoring MDRs [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
3b2 - Timely reporting of stack test dates and results [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
3b3 - Timely reporting of enforcement MDRs [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
5a - FCE coverage: majors and mega-sites [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
5b - FCE coverage: SM-80s [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
5c - FCE coverage: minors and synthetic minors (non-SM 80s) that are part of CMS plan or alternative CMS Plan [GOAL]	N/A	N/A
5e - Reviews of Title V annual compliance certifications completed [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
6a - Documentation of FCE elements [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
6b - Compliance monitoring reports (CMRs) or facility files reviewed that provide sufficient documentation to determine compliance of the facility [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations

7a - Accurate compliance determinations [GOAL]	Area for Attention	Meets or Exceeds Expectations
8c - Accuracy of HPV determinations [GOAL]	Area for Attention	Meets or Exceeds Expectations
9a - Formal enforcement responses that include required corrective action that will return the facility to compliance in a specified time frame or the facility fixed the problem without a compliance schedule [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
10a - Timeliness of addressing HPVs or alternatively having a case development and resolution timeline in place	Meets or Exceeds Expectations	Meets or Exceeds Expectations
10b - Percent of HPVs that have been addressed or removed consistent with the HPV Policy [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
11a - Penalty calculations reviewed that document and include gravity and economic benefit [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
12a - Documentation of rationale for difference between initial penalty calculation and final penalty [GOAL]	Area for Improvement	Area for Improvement
12b - Penalties collected [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
13 - Timeliness of HPV Identification [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
14 - HPV case development and resolution timeline in place when required that contains required policy elements [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations

RCRA Goal Metric	Round 4 Finding Level	Round 5 Finding Level
2b - Complete and accurate entry of mandatory data.	Area for Attention	Meets or Exceeds Expectations
5a - Two-year inspection coverage of operating TSDFs [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
5b - Annual inspection of LQGs using BR universe [GOAL]	Meets or Exceeds Expectations	N/A
5b1 - Annual inspection coverage of LQGs using RCRAinfo universe [GOAL]	N/A	Meets or Exceeds Expectations
6a - Inspection reports sufficient to determine compliance.	Area for Improvement	Area for Improvement
6b - Timeliness of inspection report completion [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
7a - Accurate compliance determinations [GOAL]	Area for Attention	Area for Improvement
8b - Timeliness of SNC determinations [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
8c - Appropriate SNC determinations [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
9a - Enforcement that returns violators to compliance.	Meets or Exceeds Expectations	Meets or Exceeds Expectations
10a - Timely enforcement taken to address SNC [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations

10b - Appropriate enforcement taken to address violations [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations
11a - Gravity and economic benefit [GOAL]	Area for Attention	Area for Improvement
12a - Documentation of rationale for difference between initial penalty calculation and final penalty [GOAL]	Area for Attention	Meets or Exceeds Expectations
12b - Penalty collection [GOAL]	Meets or Exceeds Expectations	Meets or Exceeds Expectations

Clean Water Act Findings

CWA Element 1 - Data

Finding 1-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

MDE is exceeding the national goal for the data entry rate of permit limit and discharge monitoring report (DMR) for major and non-major facilities.

Explanation:

Maryland has a 100% permit limit data entry rate for major and non-major facilities, which is above the national goal rate. Maryland has a 98.8% discharge monitoring report (DMR) data entry rate for major and non-major facilities, which is above the national goal rate.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
1b5 Permit limit data entry rate for major and non-major facilities	95%	99.9%	410	410	100%
1b6 Discharge monitoring report (DMR) data entry rate for major and non-major facilities.	95%	96.9%	7995	8095	98.8%

State Response:

We are pleased to exceed the national goal, reflecting our strong commitment to data accuracy and regulatory compliance. MDE will continue prioritizing these efforts to sustain and enhance this performance.

CWA Element 1 - Data

Finding 1-2

Area for Improvement

Recurring Issue:

Recurring from Rounds 3 & 4

Summary:

Of the 33 files reviewed, only 24.2% had data accurately reflected in the national data system.

Explanation:

Most of the facilities reviewed are missing some information in the national database of record. That includes single-event violations (SEVs), informal enforcement actions, formal enforcement actions, inspections, some penalties, and some permit information. Some facilities are missing just one of the data elements, but multiple facilities are missing multiple data elements. This is not only a recurring issue from Round 4 but also significant performance decrease from MDE's metric 2b finding level from 60.87% in FY2017 to 24.2% in FY2023.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
2b Files reviewed where data are accurately reflected in the national data system (except CAFO, Industrial SW and MS4)	100%		8	33	24.2%

State Response:

MDE concurs with the FFY 2023 assessment and recognizes the significant impacts resulting from available resources at the time of the review. To address these issues, MDE is implementing the following corrective actions:

1. **Staffing:** By FFY 2025, MDE continues to increase resources for data entry staff dedicated to addressing enforcement action data requirements and increase operational efficiency to achieve better overall accuracy in the national database.
2. **Standard Operating Procedure (SOP):** Per recommendation 1, MDE will submit a revised SOP within 120 days to ensure all required data elements—formal and informal enforcement actions, single-event violations (SEVs), and other minimum data requirements (MDRs)—are entered accurately and promptly.

3. **System Improvements:** MDE is completing the development of a CROMERR compliant sewer overflow reporting tool to meet the December 2025 E-Reporting Rule deadline. This system will streamline SEV by uploading the data directly to ICIS.

MDE also agrees with Recommendation 2 and welcomes EPA Region 3's review and monitoring of our progress in entering MDRs during quarterly enforcement meetings. We are committed to achieving the 85% data entry rate for enforcement-related MDRs required for closure of this recommendation.

Recommendation:

Rec #	Due Date	Recommendation
1	07/31/2025	Within 120 days of this report, MDE shall submit to EPA a standard operating procedure (SOP) that ensures all minimum data requirements (MDR) for formal enforcement actions, informal enforcement actions, and SEVs are entered into the national data system. EPA will review the SOP and provide feedback.
2	07/31/2026	EPA Region 3 will review and monitor MDE's progress of entering MDRs into the national data system for at least four consecutive quarterly enforcement meetings (QEMs). MDE must achieve an 85% data entry rate for enforcement related MDRs for this recommendation to be closed out.

CWA Element 2 - Inspections

Finding 2-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

Of the files reviewed, 86.4% of inspection reports were complete and sufficient to assess permit requirements at the facility and document inspector observations.

In 90% of the files reviewed, inspection reports were completed in a timely manner.

Explanation:

Three of the reviewed inspection reports did not have photo documentation in the files. However, MDE has separate files for their narrative report and their photos. It is possible some of the photo files were overlooked during review.

Only one inspection report was finalized after 60 days, and one inspection report did not have a signature or report date so timeliness could not be calculated. MDE inspectors individually sign their reports and upload them to ICIS, so it is possible the unsigned version was uploaded instead of the signed version.

Metric 6b was at issue in the Round 4 report with a finding level of 75.68%. MDE had successfully completed recommendations to address timeliness of inspection report completeness.

MDE is required to complete a comprehensive inspection of each large and medium NPDES permitted CAFO every five years. Therefore, MDE exceeded their commitment of 99 inspections for metric 4a10.

MDE does not have a CMS universe for sludge/biosolids at major publicly owned treatment works (POTW), thus metric 4a11 is not applicable.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
4a1 Number of pretreatment compliance inspections and audits at approved local pretreatment programs. [GOAL]	100% CMS		10	10	100%
4a2 EPA or state Significant Industrial User inspections for SIUs discharging to nonauthorized POTWs	100% CMS		11	12	91.7%
4a4 Number of CSO inspections. [GOAL]	100% CMS		3	1	300%
4a5 Number of SSO inspections. [GOAL]	100% CMS		55	9	611%
4a7 Number of Phase I and II MS4 audits or inspections. [GOAL]	100% CMS		95	82	115.9%
4a10 Number of comprehensive inspections of large and medium NPDES permitted concentrated animal feeding operations (CAFOs) [GOAL]	100% CMS		210	99	212.1%
4a11 Number of sludge/biosolids inspections at each major POTW [GOAL]	100% CMS		N/A		
6a Inspection reports complete and sufficient to assess permit requirements at the facility and document inspector observations.	100%		19	22	86.4%
6b Timeliness of inspection report completion [GOAL]	100%		18	20	90%

State Response:

MDE agrees with this assessment and is pleased to meet or exceed expectations in key inspection metrics.

CWA Element 2 - Inspections

Finding 2-2

Area for Improvement

Recurring Issue:

No

Summary:

For FY2023, MDE inspected 54% of major NPDES facilities and 61% of non-major NPDES facilities.

Explanation:

For metric 4a8, the inspection goal for industrial stormwater inspections set forth in MDE's Compliance Monitoring Strategy (CMS) was 151 inspections for FY2023 and the completed inspections reported was 102 inspections.

Regarding metric 4a9, the inspection goal for Phase I and II construction stormwater inspections was 660 for FY2023 and the completed inspections reported was 399.

For metric 5a1 in FY2023, the inspection goal for major NPDES facilities set forth in MDE's CMS was 41 core/stormwater inspections. The completed inspections reported in the CMS was 22 core/stormwater inspections.

In reference to metric 5b, for non-major NPDES facilities that are not contributing to CWA section 303(d) listed impairments, the CMS inspection goal was 13 core/stormwater inspections. The completed inspections reported in the CMS was 5 core/stormwater inspections in FY2023.

Additional consideration for metric 5b, non-majors NPDES facilities that discharge one or more pollutants that are relevant to an impairment on the CWA section 303(d) list, the CMS inspection goal was 56 core/stormwater inspections. The completed inspections reported in the CMS was 45 core/stormwater inspections in FY2023.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
4a8 Number of industrial stormwater inspections. [GOAL]	100% CMS		102	151	67.5%
4a9 Number of Phase I and Phase II construction stormwater inspections. [GOAL]	100% CMS		399	660	60.5%
5a1 Percentage of NPDES major facilities with individual or general permits inspected	100% CMS		22	41	53.7%
5b Inspections coverage of NPDES non-majors (individual and general permits) [GOAL]	100% CMS		50	69	72.5%

State Response:

MDE agrees with the assessment and recognizes the needed for improvement in achieving inspection coverage goals. Steps are already underway to address the challenges identified:

1. Metric 4a8 (Industrial Stormwater Inspections):

During the first half of the review period, MDE lacked a dedicated industrial stormwater inspector. However, a new inspector was hired in March 2023 and began conducting independent inspections in July 2023. As a result, FFY 2024 data shows a 108% increase, with a total of 212 inspections completed.

2. Metric 4a9 (Construction Stormwater Inspections):

Staffing shortages and inaccuracies in the reported total number of permits contributed to the shortfall. Over time, the total number of active permits in the construction program becomes less accurate because some permittees do not notify the state when projects are completed. This issue was addressed with the implementation of the new permit, which reset the permit universe. These changes, along with increased staffing, resulted in significant improvement, with 830 inspections completed in FFY 2024, far exceeding the CMS goal.

3. Metrics 5a and 5b (Major and Non-Major NPDES Facility Inspections):

In FFY 2023, MDE had only three full-time compliance engineers dedicated to inspecting individual NPDES permits. With increased staff, by FFY 2024, MDE achieved 95% of the major permit inspection goal and 94% of the minor permit inspection goal. Additionally, in FFY 2025, MDE established a new division specifically for individual discharge permits and increased engineering staff dedicated this activity by four fold.

Response to Recommendations:

- **Recommendation 1:** MDE will share our strategic plan outlining how we will achieve inspection coverage goals for FY2026. This plan will include detailed staffing, resource allocation, and process improvements and will be submitted to EPA by the June 1, 2025 deadline.
- **Recommendation 2:** MDE agrees to EPA's review of our progress in quarterly enforcement meetings (QEMs) for FY2026 and commits to achieving an 85% inspection coverage rate for CMS commitments.

Note that MDE believes both recommendations are meant to apply to FY2026 not FY2025. FY2025 will be more than half over by the due dates listed.¹

Recommendation:

Rec #	Due Date	Recommendation
1	06/01/2025	MDE shall create a strategic plan outlining how they will achieve their inspection coverage goals for FY2026. MDE shall submit this plan to EPA for review and consultation.
2	12/31/2026	EPA to review MDE's inspection coverage progress in the quarterly enforcement meetings (QEM) for FY2026 commitments. EPA will assess MDE's progress with the FY2026 Annual Data Metric Analysis (ADMA). Recommendation #2 can be successfully closed out when MDE achieves an 85% inspection coverage rate of CMS commitments.

CWA Element 3 - Violations

Finding 3-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

¹ EPA adjusted the dates in the recommendations after receiving MDE's comments.

In the files reviewed, 95% of the compliance determinations were accurate.

Explanation:

Accurate compliance determinations are made by MDE. There is one facility with benchmark exceedances that were not included in an inspection report.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
7e Accuracy of compliance determinations [GOAL]	100%		19	20	95%
7j1 Number of major and non-major facilities with new single-event violations that began during the review year			0	0	0
7k1 Major and non-major facilities in noncompliance.			955	4709	20.3%
8a3 Percentage of active major facilities in SNC and non-major individual permit facilities in Category I noncompliance during the fiscal year			704	4698	15%
8a4 Percentage of active non-major general permit facilities in Category I noncompliance during the reporting year			637	4255	15%

State Response:

MDE is in agreement with this assessment. As per our SOP, WSA Compliance uses the DMR data stored in ICIS to determine compliance status. Benchmarks are now being entered in accordance with EPA guidelines.

CWA Element 4 - Enforcement

Finding 4-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

In the files reviewed, 87% of the enforcement responses addressed violations in a timely and appropriate manner.

Explanation:

Enforcement actions are made in a timely manner and MDE escalates to more severe enforcement actions when necessary.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
10a1 Percentage of major individually permitted NPDES facilities with formal enforcement action taken in a timely manner in response to late DMR SNC violations			0	0	0
10a2 Percentage of major individually permitted NPDES facilities with formal enforcement action taken in a timely manner in response to missing DMR SNC violations			0	0	0
10a3 Percentage of major individually permitted NPDES facilities with formal enforcement action taken in a timely manner in response to SNC effluent violations			1	2	50%
10a4 Percentage of major individually permitted NPDES facilities with formal enforcement action taken in a timely manner in response to SNC compliance schedule violations			0	0	0
10b Enforcement responses reviewed that address violations in a timely and appropriate manner.			20	23	87%

State Response:

MDE agrees with this assessment and is pleased to meet or exceed expectations in addressing violations in a timely and appropriate manner. Ensuring effective enforcement is a priority.

CWA Element 4 - Enforcement

Finding 4-2

Area for Improvement

Recurring Issue:

No

Summary:

In the files reviewed, enforcement responses returned, or will return, sources in violation to compliance 60.9% of the time.

Explanation:

In FY2023, MDE issued enforcement actions and of the 23 files reviewed, 14 came into compliance.

It should be noted that in FY2023 there was a National Enforcement and Compliance Initiative (NECI) set by OECA to reduce the SNC baseline rate in half to ensure the worst SNC violators are timely and appropriately addressed. This NECI led to a push for MDE to inspect the facilities with the worst SNC status. Therefore, it is possible that this NECI may have led to a larger number of facilities unable to come into compliance since the worst actors were targeted.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
9a Percentage of enforcement responses that returned, or will return, a source in violation to compliance [GOAL]	100%		14	23	60.9%

State Response:

MDE agrees with this assessment. Prioritizing complex cases with significant environmental impacts may affect compliance metrics, as these cases often require extended timelines for resolution. MDE requests additional training for this metric to ensure that our enforcement actions are correctly entered into EPA's system and that they are counted towards the resolution of the violations.

Response to Recommendations:

- **Recommendation 1:** MDE will submit a root cause analysis by July 31, 2025, identifying factors impacting metric 9a, including challenges associated with complex cases.
- **Recommendation 2:** MDE agrees review and discuss the progression of metric 9a for four consecutive QEMs.

Recommendation:

Rec #	Due Date	Recommendation
1	7/31/2025	MDE shall submit to EPA a root cause analysis detailing the issues related to metric 9a in FY2023. EPA shall review and discuss the analysis with MDE.
2	07/31/2026	EPA Region 3 will review and discuss the progression of metric 9a for four consecutive QEMs.

CWA Element 5 - Penalties

Finding 5-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

In the files reviewed with issued penalties, there was evidence that the penalty was collected 92.3% of the time.

Explanation:

There was 1 file where there was no record of receipt of penalty collected.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
12b Penalties collected [GOAL]	100%		12	13	92.3%

State Response:

MDE agrees with this assessment.

CWA Element 5 - Penalties

Finding 5-2

Area for Attention

Recurring Issue:

No

Summary:

In 75% of the files reviewed, penalties that had a reduction had a documented rationale to explain the reduction.

Explanation:

Of the 4 penalties that had a reduced penalty collected, 3 files had a documented rationale to explain the reduction.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
12a Documentation of rationale for difference between initial penalty calculation and final penalty [GOAL]	100%		3	4	75%

State Response:

MDE agrees with this assessment. Per our Compliance Program SOP, documentation of the rationale for penalty changes are a standard part of our enforcement process. MDE acknowledges the need to ensure consistent documentation in all cases and will reinforce procedures to maintain full compliance. However, we believe a larger file review by EPA would reflect a higher compliance rate for this metric than what was reported.

CWA Element 5 - Penalties

Finding 5-3

Area for Improvement

Recurring Issue:

No

Summary:

Of the 14 penalty files reviewed, only 14.3% documented both gravity and economic benefit components.

Explanation:

Some penalty calculation spreadsheets do not include a gravity component. Most penalty calculations do not include economic benefit component or a rationale for mitigating economic benefit.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
11a Penalty calculations reviewed that document and include gravity and economic benefit [GOAL]	100%		2	14	14.3%

State Response:

MDE agrees with this assessment and acknowledges the need for improvement to document economic benefit components in penalty calculations. MDE uses a penalty calculator that incorporates gravity components as defined in Maryland's statutes and regulations. To address the identified gap, MDE will take the following actions:

1. **Training:** Request additional EPA training on calculating economic benefit.
2. **SOP Updates:** Update the Compliance Program SOP to ensure economic benefit is consistently included and properly documented in penalty calculations.

Response to Recommendations:

- **Recommendation 1:** MDE will revise its penalty calculation worksheet to include sections for both economic benefit and gravity components and will submit the updated worksheet to EPA by July 31, 2025.

- **Recommendation 2:** MDE agrees to EPA's review of penalty worksheets during Quarterly Enforcement Meetings and is committed to achieving an 85% implementation rate by January 31, 2026.

Recommendation:

Rec #	Due Date	Recommendation
1	07/31/2025	Add a section to existing penalty calculation worksheet that includes both a calculation for economic benefit and gravity component. If it is determined that economic benefit is de minimis, it should be stated on the worksheet. MDE will submit the updated penalty calculation worksheet to EPA for review.
2	01/31/2026	EPA to review at least one penalty calculation worksheet that was completed during the previous quarter during the QEMs to ensure that both economic benefit and gravity components are being considered and documented with 85% implementation as the goal. If the review results in an 85% implementation rate, EPA will close the recommendation and if it does not, the recommendation will be revisited at each QEM until 85% implementation rate is achieved.

Clean Air Act Findings

CAA Element 1 - Data

Finding 1-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

MDE entered their data into ICIS timely and accurately.

Explanation:

MDE entered all Minimum Data Requirements (MDR) timely into ICIS-Air at a rate greater than 85% except for metric 3b3 which was slightly below at 84.2%.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
2b Files reviewed where data are accurately reflected in the national data system [GOAL]	100%		33	34	97.1%
3a2 Timely reporting of HPV determinations [GOAL]	100%	53%	10	10	100%
3b1 Timely reporting of compliance monitoring MDRs [GOAL]	100%	85.3%	195	223	87.4%
3b2 Timely reporting of stack test dates and results [GOAL]	100%	74.7%	49	54	90.7%
3b3 Timely reporting of enforcement MDRs [GOAL]	100%	82.4%	16	19	84.2%

State Response:

CAA Element 2 - Inspections

Finding 2-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

MDE met the negotiated frequency for compliance evaluations for the major and synthetic minor sources 80% (SM-80) in their CMS universe and reviewed all Title V Annual Compliance Certifications (TVACC) scheduled to be reviewed. All compliance monitoring reports (CMR) reviewed provided sufficient documentation to determine facility compliance and document the full compliance evaluations (FCE) elements. All five metrics under Finding 2-1 were 100%.

Explanation:

MDE conducted all required FCEs at major and SM-80 sources. All TVACCs that were scheduled to be reviewed were completed. All CMRs were reviewed and completed. MDE does not have an alternative compliance monitoring strategy (CMS) plan and does not have any minor sources included in their CMS plan.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
5a FCE coverage: majors and mega-sites [GOAL]	100%	86%	52	52	100%
5b FCE coverage: SM-80s [GOAL]	100%	92.7%	65	65	100%
5c FCE coverage: minor and synthetic minor (non-SM80s) sources that are part of a CMS Plan and Alternative CMS Facilities			N/A	-	-
5e Reviews of Title V annual compliance certifications completed [GOAL]	100%	79.1%	107	107	100%
6a Documentation of FCE elements [GOAL]	100%		24	24	100%
6b Compliance monitoring reports (CMRs) or facility files reviewed that provide sufficient documentation to determine compliance of the facility [GOAL]	100%		24	24	100%

State Response:

CAA Element 3 - Violations

Finding 3-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

MDE did a thorough and comprehensive job in making HPV and FRV determinations and timely identified HPVs.

Explanation:

All metrics were greater than or equal to 97%, with metrics 8c and 13 achieving 100%. Metric 7a's only inaccuracy was that an action was not timely entered into ICIS, however the compliance determination was found to be accurate.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
7a Accurate compliance determinations [GOAL]	100%		35	36	97.2%
7a1 FRV 'discovery rate' based on inspections at active CMS sources			10	298	3.4%
8a HPV discovery rate at majors			6	110	5.5%
8c Accuracy of HPV determinations [GOAL]	100%		15	15	100%
13 Timeliness of HPV Identification [GOAL]	100%		10	10	100%

State Response:

CAA Element 4 - Enforcement

Finding 4-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

MDE included corrective actions in formal responses and took timely and appropriate enforcement action consistent with the HPV policy.

Explanation:

The fourteen formal enforcement responses reviewed met the requirements relating to metric 9a and provided documentation showing how the facility was returned to compliance. MDE addressed seven HPVs within 180 days of day zero. The remaining six HPVs had a timely case development and resolution timeline (CD&RT) in place and all CD&RTs contained the required policy elements. All thirteen reviewed HPVs were addressed or removed consistent with the HPV policy.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
9a Formal enforcement responses that include required corrective action that will return the facility to compliance in a specified time frame, or the facility fixed the problem without a compliance schedule [GOAL]	100%		14	14	100%
10a Timeliness of addressing HPVs or alternatively having a case development and resolution timeline in place	100%		13	13	100%
10a1 Rate of Addressing HPVs within 180 days			5	5	100%
10b Percent of HPVs that have been addressed or removed consistent with the HPV Policy [GOAL]	100%		13	13	100%
10b1 Rate of managing HPVs without formal enforcement action			0	5	0%
14 HPV case development and resolution timeline in place when required that contains required policy elements [GOAL]	100%		6	6	100%

State Response:

CAA Element 5 - Penalties

Finding 5-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

All penalty calculations reviewed included both a gravity component and an economic benefit component.

Explanation:

The seven penalties collected had documentation to show that the penalty was paid. All seven of the penalty calculations reviewed included both a gravity component and an economic benefit component.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
11a Penalty calculations reviewed that document gravity and economic benefit [GOAL]	100%		7	7	100%
12b Penalties collected [GOAL]	100%		7	7	100%

State Response:

CAA Element 5 - Penalties

Finding 5-2

Area for Improvement

Recurring Issue:

Recurring from Rounds 3 and 4

Summary:

MDE did not document the difference between the initial civil penalty and the final penalty nor any rationale for that difference.

Explanation:

The EPA penalty policy requires documentation of how adjustments were made to the preliminary deterrence amount so that enforcement attorneys, program staff and their managers learn from each other's experience and promote the fairness required by the penalty policy. All seven penalty calculation files reviewed did not include documentation on the difference between the initial civil penalty worksheet's final preliminary deterrence amount and the final penalty nor any rationale for that difference. It was clear from the file reviews and interviews with the staff that the rationale between the initial civil penalty worksheet's final preliminary deterrence amount and the final penalty is not documented in the enforcement files.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
12a Documentation of rationale for difference between initial penalty calculation and final penalty [GOAL]	100%		0	7	0%

State Response:

We accept this finding. Heretofore, Maryland chose to use the EPA penalty calculation sheet to calculate the initial financial penalty, which resulted in unrealistically large penalties for cases involving relatively minor violations, as the EPA calculation considers the size of the violator (the corporate worth). We then proceeded to report that number to EPA but was not able to use it as a practical matter when negotiating a penalty, except in very rare cases. We have since developed an initial penalty calculation method that is state-specific, focusing on seven factors in state law that should be considered when considering a penalty. The penalty amount using this new method is what will be reported to EPA as the initial penalty amount. Any deviations from that initial amount arising from negotiations will be documented on the penalty change form that we have

been using. We have shared the new method of calculating the initial penalty amount with EPA and are awaiting feedback.

Regarding EPA's recommendations (below), including the recommended milestone dates, we accept them and will begin to use the draft penalty calculation sheet we developed for cases initiated starting January 2025. We will address any comments EPA may have on our draft calculation sheet upon receipt.

Recommendation:

Rec #	Due Date	Recommendation
1	06/30/2025	<p>MDE will document the itemization of the civil penalty amount initially presented to the company. MDE will submit to EPA their proposed document to capture penalty itemization for EPA's review and feedback.</p> <p>MDE will continue to document the itemization of each iteration of the civil penalty amount, including the use of the Penalty Change Authorization form.</p>
2	09/30/2026	<p>EPA will review the use of the itemized penalty document for cases initiated after 2024, as per Recommendation #1, at the quarterly Timely & Appropriate (T&A) meetings. These reviews will continue for at least four consecutive quarters. Recommendation #2 can be successfully closed out once a cumulative implementation rate of 85% is achieved in relation to these reviews.</p>

Resource Conservation and Recovery Act Findings

RCRA Element 1 - Data

Finding 1-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

In 85.7% of files reviewed, all mandatory data elements were accurately reflected in RCRAInfo. Five (5) of the 35 files reviewed were found to have inaccurate data elements.

Explanation:

The five (5) instances of files found with inaccurate data include: Addresses differing between inspection report and RCRAInfo database, violations cited in an inspection report not entered into RCRAInfo, incorrect regulatory citation for a violation entered in RCRAInfo, an erroneously entered violation not removed from RCRAInfo, and a Focused Compliance Inspection conducted on 5/18/23 that was not entered into RCRAInfo.

Although the accuracy of the data was slightly lower in Round 5 than what was found in Round 4, down from 91.2%, MDE still demonstrated a marked improvement from the findings for this metric in Round 2 and Round 3. Generally, information was accurately transcribed from the file into RCRAInfo, but this is an area for which MDE should lend more scrutiny to account for potential conflicts between documented information and data entry, as well as updating information in the database in a timely matter.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
2b Complete and accurate entry of mandatory data.	100%		30	35	85.7%

State Response:

RCRA Element 2 - Inspections

Finding 2-1

Area for Improvement

Recurring Issue:

Recurring from Rounds 3 & 4

Summary:

Only 42.9% of reports included all relevant attachments and contained the appropriate information required to accurately assess facility compliance as required by their registered generator status. Therefore, 57.1% of reports lacked sufficient information to make an accurate compliance determination.

Explanation:

The reports were found to be insufficient based on the following:

- Reports not including photos when violations are cited;
- photos not referenced in the body of the report to correspond to photos in the photo log;
- photos do not include caption or description to correspond to body of report;
- non-specific, or vague language, used to describe hazardous waste (HW) container quantities (e.g., “couple”) and container conditions (labeling, etc.);
- facility type incorrectly described in report (a Transporter described as an LQG/TSDF);
- entire sentences or sections of reports don’t make sense – incoherent or broken sentences;
- waste determinations – hazardous and/or non-hazardous, not provided with information as to how the determinations were made;
- photographs manipulated/resized, rendering incapable of providing evidence; and
- record review descriptions lack information or not mentioned in report.

EPA found similar issues in Round 4 regarding sufficiency of inspection reports to determine compliance and a Performance Action Plan (PAP) was utilized at that time.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
6a Inspection reports sufficient to determine compliance.	100%		15	35	42.9%

State Response:

It has been the Solid Waste Program's practice to verify that the documents have been produced by the inspected facilities which are generally submitted to inspection staff via email and stored on MDE's data repositories. However, moving forward, the Solid Waste Program will ensure that the appropriate documentation copies are maintained within the inspection files for each facility. Additionally, MDE Solid Waste Program hazardous waste inspectors will continue to shadow EPA inspectors to observe their inspection techniques and learn ways to improve inspection report writing. Additionally, the Division Chief meets weekly with the newer inspectors to discuss any observed violations and the application of the relevant law and regulations. The Division Chief also reviews inspection staff reports to ensure that violations are correctly identified. MDE requests that EPA assist MDE with training for hazardous waste inspection staff on compliance determinations and inspection report writing. MDE accepts EPA's recommendation.

Recommendation:

Rec #	Due Date	Recommendation
1	10/31/2025	MDE will submit to EPA for review and feedback: new or revitalized standard operating procedures (SOPs) for inspection report writing, MDE's internal review processes with a focus on peer review and management review prior to finalization, an inspection report template for use by inspectors, and field guidelines for conducting compliance evaluation inspections (CEIs) that focus on process-based inspections.
2	03/01/2026	Within 120 days of completion of Recommendation #1 of this finding, MDE will train staff on the SOPs required under Recommendation #1 of this finding and provide EPA with documentation showing when the training was complete, who provided the training, and a list of participants.
3	03/01/2027	For a period of one (1) year following the completion of Recommendation #2 of this finding, MDE will submit inspection reports to EPA on a quarterly basis for EPA to review and provide feedback.
4	06/01/2026	MDE will hold a conference or training with appropriate MDE management and staff to review EPA's inspection report comments provided in response to Recommendation #3 of this finding. EPA's comments and feedback as well as areas for improvement should be discussed during the training. The training should be planned in coordination with EPA so that EPA will be present to provide any additional guidance and feedback if needed.
5	03/01/2028	Upon completion of Recommendation #3 of this finding, if EPA has not observed improvement by MDE for inspection reports being complete and sufficient to determine compliance, MDE will continue to submit reports to EPA for review and comment, quarterly for an additional year.

RCRA Element 2 - Inspections

Finding 2-2

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

MDE consistently completed inspection reports in a timely manner and conducted inspections of a combination of Very Small Quantity Generators (VSQGs), Small Quantity Generators (SQGs), and Large Quantity Generators (LQGs) in accordance with their Compliance Monitoring Strategy (CMS) for the RCRA Subtitle C Program.

Explanation:

94.3% of inspection reports were completed in a timely fashion. The review team used a 150-day completion timeline, based on EPA's 2003 Hazardous Waste Civil Enforcement Response Policy, to determine this finding. The average number of days for MDE to complete inspection reports in FY2023 is 35.2.

MDE inspected 100% of the state's permitted facilities in FY2023 (11 of 11) and they also exceeded the 20% inspection coverage of LQGs (22.3%) by inspecting a combination of VSQGs, SQGs, and LQGs in accordance with their CMS for the RCRA Subtitle C Program. MDE's 20% commitment for FY2023 was 90 LQGs based on an adjusted LQG universe of 448 (subtracted bridges, one (1) CVS Pharmacy, and 10 Treatment Storage Disposal Facilities (TSDFs) that were on the LQG list). MDE exceeded their goal of 90 LQGs, with a total of 96. Additional bridges, some generating waste and some not, account for universe differences between FY2023 EOY report and ECHO.

Metrics 5d1, 5e5, 5e6, and 5e7 are informational only, MDE does not have any goals or commitments tied to these metrics.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
5a Two-year inspection coverage of operating TSDFs [GOAL]	100%		11	11	100%
5b1 Annual inspection coverage of LQGs using RCRAinfo universe [GOAL]	20%	9%	96	90	106.7%
5d1 Number of SQGs inspected	Informational		30		
5e5 One-year count of very small quantity generators (VSQGs) with inspections	100% of commitments%		26		
5e6 One-year count of transporters with inspections	100% of commitments%		6		
5e7 One-year count of sites not covered by metrics 5a - 5e6 with inspections	100% of commitments%		6		
6b Timeliness of inspection report completion [GOAL]	100%		33	35	94.3%

State Response:

RCRA Element 3 - Violations

Finding 3-1

Area for Improvement

Recurring Issue:

No

Summary:

MDE made accurate compliance determinations in 69.7% of the files reviewed, with 30.3% of the files having inconclusive or inaccurate compliance determinations.

Explanation:

Compliance determinations were found to be insufficient based on the following:

- Potential violations not cited, or violations cited, where waste determinations were not mentioned (how facility arrived at determination of HW or non-HW);
- potential violations described in body of report, but not actually cited as a violation; and
- improper determination of HW made by facility as described, but not cited as a violation.

EPA believes that the continued underperforming of metric 6a may have contributed to the decreased performance in metric 7a.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
7a Accurate compliance determinations [GOAL]	100%		23	33	69.7%
7b Violations found during CEI and FCI inspections		40.7%	40	164	24.4%

State Response:

MDE Solid Waste Program hazardous waste inspectors will continue to shadow EPA inspectors to observe their inspection techniques and learn ways to improve inspection report writing. Additionally, the Division Chief meets weekly with the newer inspectors to discuss any observed violations and the application of the relevant law and regulations. The Division Chief also reviews inspection staff reports to ensure that violations are correctly identified. MDE requests that EPA assist MDE with training for hazardous waste inspection staff on compliance determinations and inspection report writing. MDE accepts EPA's recommendation.

Recommendation:

Rec #	Due Date	Recommendation
1	06/30/2025	Within 90 days of the issuance of the Final Report, MDE will submit to EPA, for review and feedback, a root cause analysis identifying impediments that may be contributing to the underperforming measure of making accurate compliance determinations. The root cause analysis required under Finding 2-1, Recommendation #1 and this recommendation should be considered simultaneously and submitted as one root cause analysis.
2	10/31/2025	Within 120 days of completing the root cause analysis for this finding, MDE will submit to EPA, for review and feedback, new or revitalized standard operating procedures (SOPs) for making accurate compliance determinations.
3	12/31/2025	Within 60 days of completing Recommendation #2 of this finding, MDE will train MDE enforcement staff on the root cause analysis and new or revitalized SOPs regarding accurate compliance determinations.

RCRA Element 3 - Violations

Finding 3-2

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

MDE's SNC determinations were consistently made in a timely manner and were appropriate based on the information contained in the inspection report and file.

Explanation:

The timeliness of MDE's SNC determinations was 100% for FY2023, meaning that a SNC determination was made within 150 days of Day Zero (date of inspection). Initially the DMA showed that only two out three SNC determinations were made timely. MDE has explained that for the one SNC determination that appeared to not be made timely, follow up information gathering was needed and was delayed due to the facility. Taking that into account, MDE meets or exceeds expectations for this metric.

MDE consistently made appropriate SNC determinations (86.4%), based on 19 of 22 reviewed files having an accurate SNC determination made, and three (3) reviewed files were found to have inaccurate or inconclusive SNC determinations. SNC determinations were found to be insufficient based on the following: Accuracy of SNC determination unclear, based on the information/evidence provided in the reports; uncertainty of the SNC determination made by the inspector regarding the characterization of some of the materials/containers cited as being hazardous waste, violations may not rise to SNC level.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
2a Long-standing secondary violators			0	0	0
8a SNC identification rate at sites with CEI and FCI		1.9%	3	319	.9%
8b Timeliness of SNC determinations [GOAL]	100%	90%	3	3	100%
8c Appropriate SNC determinations [GOAL]	100%		19	22	86.4%

State Response:

RCRA Element 4 - Enforcement

Finding 4-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

MDE was found to have taken appropriate enforcement actions to consistently return violators to compliance.

Explanation:

The enforcement taken by MDE was found to consistently return violators to compliance in 13 of the 15 files reviewed (86.7%) where an enforcement action was taken. MDE took an appropriate enforcement action to address the violations in 17 of the 18 files reviewed (94.4%) where an enforcement action was taken to address SNC.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
9a Enforcement that returns violators to compliance.	100%	100%	13	15	86.7%
10a Timely enforcement taken to address SNC [GOAL]	80%	89.1%	3	3	100%
10b Appropriate enforcement taken to address violations [GOAL]	100%		17	18	94.4%

State Response:

RCRA Element 5 - Penalties

Finding 5-1

Area for Improvement

Recurring Issue:

Recurring from Round 3 & 4

Summary:

Of the seven (7) penalty files that were reviewed, all seven included a gravity component. However, only one penalty included an economic benefit calculation. Therefore, only 14.3% of the files reviewed included both a gravity and economic benefit calculation.

Explanation:

The Round 5 findings for MDE's documenting of economic benefit calculations for assessed penalties is similar to Round 4 (27.3%) and was found to have declined by 47.6% since the previous review period in 2017.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
11a Gravity and economic benefit [GOAL]	100%		1	7	14.3%

State Response:

MDE's Solid Waste Program revised its current hazardous waste penalty matrix on November 13, 2024, to include a calculation for economic benefit for the violator. This calculation will now be used in all formal enforcement actions moving forward. MDE accepts EPA's recommendation.

Recommendation:

Rec #	Due Date	Recommendation
1	07/31/2025	MDE will add a section to the existing penalty calculation worksheet that includes a calculation for economic benefit. If it is determined that economic benefit is not applicable or de minimis, it should be stated on the worksheet.
2	07/31/2026	For a period of one (1) year following the completion of Recommendation #1 of this finding, MDE will submit to EPA completed penalty calculation worksheets on a quarterly basis for review to ensure that economic benefit is being considered and documented with 80-85% accuracy as the goal.
3	07/31/2027	If the EPA does not observe improvement in this metric upon completion of Recommendation #2 of this finding, MDE will continue to submit completed penalty calculation worksheets to EPA for review on a quarterly basis for an additional year.

RCRA Element 5 - Penalties

Finding 5-2

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

MDE consistently provided a rationale for a difference between proposed penalty calculations and final assessed penalties in the files reviewed (3 of 3; 100%). MDE was also consistent in documenting the collection of assessed penalties (8 of 8; 100%).

Explanation:

Of the nine (9) reviewed files observed to have a penalty assessed, one (1) did not include information regarding the collection of the penalty, but MDE indicated that the penalty negotiations were still taking place, so the penalty had not yet been collected.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
12a Documentation of rationale for difference between proposed penalty calculation and final penalty.	100%		3	3	100%
12b Penalty collection [GOAL]	100%		8	8	100%

State Response:
