

STATE REVIEW FRAMEWORK

Tennessee

**Clean Air Act, Clean Water Act, &
Resource Conservation & Recovery Act
Implementation in Federal Fiscal Year 2019**

**U.S. Environmental Protection Agency
Region 4**

**Final Report
March 15, 2022**

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](#).

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

Key Dates:

- May 20, 2020: kick off letter sent to State
- March 29, 2021: remote file review for CAA
- May 1, 2021: remote file review for CWA
- April 1, 2021: remote file review for RCRA

State and EPA key contacts for review:

	Tennessee Department of Environment and Conservation (TDEC)	EPA Region 4
SRF Contact/Coordinator	Greg Young, Deputy Commissioner, Bureau of Environment	Reginald Barrino, SRF Coordinator
CAA	Kevin McLain, Enforcement Manager Division of Air Pollution Control Tammy Gambill, TDEC-ENV Consultant 3 Division of Air Pollution Control	Denis Kler, Policy, Oversight & Liaison Office Chetan Gala, Air Enforcement Branch
CWA	Jessica Murphy, Compliance & Enforcement Manager, Division of Water Resources	Andrea Zimmer, Policy, Oversight & Liaison Office Becky Garnett, Policy, Oversight & Liaison Office Mark Robertson, Water Enforcement Branch
RCRA	Benjamin Almassi, Environmental Consultant Division of Solid Waste Management Enforcement & Compliance	Reginald Barrino, Policy, Oversight & Liaison Office Alan Newman, Chemical Safety & Land Enforcement Branch

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 Air Act (CAA)

TDEC met the timely reporting of high priority violation (HPV) determinations into ICIS-Air, the timely reporting of compliance monitoring minimum data requirements (MDRs) into ICIS-Air, the timely reporting of stack tests and stack test results into ICIS-Air and the timely reporting of enforcement actions into ICIS-Air.

TDEC met the negotiated frequency for inspection of Title V sources and SM-80 sources, reviewed the Title V Annual Compliance Certifications, provided the necessary documentation for Full Compliance Evaluations (FCEs), and provided the necessary documentation for the Compliance Monitoring Reports (CMRs).

TDEC had formal enforcement actions that required corrective action that would return the facility to compliance or compliance was achieved prior to the issuance of an order, addressed HPVs in a timely manner, and took appropriate enforcement actions for HPVs. No HPV addressing actions required TDEC to develop case development and resolution timelines for enforcement actions requiring additional time.

TDEC provided penalty calculation worksheets that addressed both gravity and economic benefit components, provided rationale for the difference between the initial penalty calculation and the final penalty amount, and provided documentation that the penalties were collected.

Clean Water Act (CWA)

TDEC exceeded both national goals for the entry of permit limits and discharge monitoring reports into the national database for NPDES major and non-major facilities.

TDEC met or exceeded most of its FY19 Compliance Monitoring Strategy (CMS) and CWA §106 Workplan commitments.

TDEC's NPDES inspection reports were complete, provided appropriate documentation to determine compliance at the facility and were timely.

TDEC consistently documented accurate NPDES compliance determinations.

TDEC consistently documented any differences between the initial penalty calculation and the final assessed penalty as well as the collection of penalties.

Resource Conservation and Recovery Act (RCRA)

TDEC's RCRA Minimum Data Requirements for compliance monitoring and enforcement activities were complete in RCRAInfo.

TDEC met national goals for both TSDF and LQG inspections.

TDEC's hazardous waste program inspection reports reviewed were well written, complete, and provided appropriate documentation to determine compliance at the facility.

TDEC made accurate hazardous waste compliance determinations. In addition, significant noncompliance (SNC) determinations were timely and appropriate.

TDEC consistently issues enforcement responses that have returned or will return a facility in significant noncompliance (SNC) or secondary violation (SV) 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 Air Act (CAA)

None

Clean Water Act (CWA)

The accuracy of data between files reviewed and data reflected in the national data system needs attention.

Resource Conservation and Recovery Act (RCRA)

TDEC does not consistently document adequate rationale for the economic benefit component or adjustments to the initial penalty including a justification for any differences between the initial and final assessed penalty in hazardous waste penalty calculations.

Clean Air Act Findings

CAA Element 1 - Data

Finding 1-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC met the timely reporting of high priority violation (HPV) determinations into ICIS-Air, the timely reporting of compliance monitoring minimum data requirements (MDRs) into ICIS-Air, the timely reporting of stack tests and stack test results into ICIS-Air and the timely reporting of enforcement actions into ICIS-Air.

Explanation:

Data Metrics 3a2 (87.5%), 3b1 (99.3%), 3b2 (100.0%), and 3b3 (100.0%) indicated that TDEC was timely in reporting of the HPV determinations, the MDRs for compliance monitoring activities, stack tests and stack test results, and enforcement actions into ICIS-Air.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
3a2 Timely reporting of HPV determinations [GOAL]	100%	42.1%	7	8	87.5%
3b1 Timely reporting of compliance monitoring MDRs [GOAL]	100%	85.7%	696	701	99.3%
3b2 Timely reporting of stack test dates and results [GOAL]	100%	69.4%	94	94	100%
3b3 Timely reporting of enforcement MDRs [GOAL]	100%	74.4%	151	151	100%

State Response:

None.

CAA Element 1 - Data

Finding 1-2

Area for Attention

Recurring Issue:

No

Summary:

The file review identified data discrepancies between the documents in the file and the data that was entered in ICIS-Air.

Explanation:

File Review Metric 2b indicated that only 75.0% of the files reviewed reflected accurate entry of all MDRs into ICIS-Air. The remaining nine files had one or more discrepancies between the information contained in the file and the data entered into ICIS-Air. Some of the discrepancies consisted of informal enforcement actions not being entered into ICIS-Air, or data entry errors. Incorrect data has the potential to hinder the EPA's oversight and targeting efforts and may result in inaccurate information being released to the public.

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%		24	32	75%

State Response:

TDEC-APC misunderstood the reporting requirement for certain informal enforcement actions. The reporting errors have been rectified, and the process to report correctly has been implemented. For general data errors, TDEC-APC is in the process of revising the data quality assurance process.

CAA Element 2 - Inspections

Finding 2-1

Meets or Exceeds Expectations

Recurring Issue:No

Summary:

TDEC met the negotiated frequency for inspection of Title V sources and SM-80 sources, reviewed the Title V Annual Compliance Certifications, provided the necessary documentation for Full Compliance Evaluations (FCEs), and provided the necessary documentation for the Compliance Monitoring Reports (CMRs).

Explanation:

Data Metrics 5a (100.0%) and 5b (100.0%) indicated that TDEC provided adequate inspection coverage for Title V sources and SM-80 sources during the FY2020 review year by ensuring that all major sources were inspected at least once every 2 years, and each SM-80 source was inspected at least once every 5 years. In addition, Data Metric 5e (97.1%) indicated that TDEC completed reviews of the Title V annual compliance certifications. File Review Metrics 6a (100.0%) and 6b (96.3%) indicated that TDEC provided adequate documentation of the FCE elements identified in the CAA Stationary Source Compliance Monitoring Strategy (CMS Guidance), and provided adequate documentation in the CMRs to determine the compliance of the facility.

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%	87%	102	102	100%
5b FCE coverage: SM-80s [GOAL]	100%	93%	329	329	100%
5e Reviews of Title V annual compliance certifications completed [GOAL]	100%	86.1%	201	207	97.1%
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%		26	27	96.3%

State Response:None.

CAA Element 3 - Violations

Finding 3-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC made timely identification of HPVs, and TDEC made accurate compliance determinations and made accurate HPV determinations.

Explanation:

Data Metric 13 (100.0%) indicated that TDEC had entered the HPVs information into ICIS-Air within the 90-day time requirement. File Review Metrics 7a (100.0%) and 8c (94.1%) indicated that based on the information contained in the files TDEC made accurate compliance determinations and made accurate HPV determinations.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
13 Timeliness of HPV Identification [GOAL]	100%	90.6%	8	8	100%
7a Accurate compliance determinations [GOAL]	100%		32	32	100%
8c Accuracy of HPV determinations [GOAL]	100%		16	17	94.1%

State Response:

None.

CAA Element 4 - Enforcement

Finding 4-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC had formal enforcement actions that required corrective action that would return the facility to compliance or compliance was achieved prior to the issuance of an order, addressed HPVs in a timely manner, and took appropriate enforcement actions for HPVs. No HPV addressing actions required TDEC to develop case development and resolution timelines for enforcement actions requiring additional time.

Explanation:

File Review Metrics 9a (88.2%), 10a (100.0%), and 10b (100.0%) indicated that TDEC was able to return facilities to compliance, to address HPVs in a timely manner, and took appropriate enforcement actions for HPVs. All HPV actions were addressed within the 180-day timeframe required by the HPV Policy, so TDEC did not have to develop case development and resolution timelines and therefore, File Review Metric 14 does not apply.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
10a Timeliness of addressing HPVs or alternatively having a case development and resolution timeline in place	100%		8	8	100%
10b Percent of HPVs that have been addressed or removed consistent with the HPV Policy [GOAL]	100%		8	8	100%
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%		15	17	88.2%

State Response:

None.

CAA Element 5 - Penalties

Finding 5-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC provided penalty calculation worksheets that addressed both gravity and economic benefit components, provided rationale for the difference between the initial penalty calculation and the final penalty amount, and provided documentation that the penalties were collected.

Explanation:

File Review Metrics 11a (94.1), 12a (88.2%) and 12b (100.0%) indicated that TDEC considered gravity and economic benefit components in the penalty calculations, provided rationale for differences between the initial penalty calculation and the final penalty, and provided documentation that the penalties were collected.

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%		16	17	94.1%
12a Documentation of rationale for difference between initial penalty calculation and final penalty [GOAL]	100%		15	17	88.2%
12b Penalties collected [GOAL]	100%		17	17	100%

State Response:

None.

Clean Water Act Findings

CWA Element 1 - Data

Finding 1-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC exceeded the National Goals for the entry of key data into the national database for NPDES major and non-major facilities.

Explanation:

TDEC exceeded the National Goals and national averages for the entry of key Data Metrics (1b5 and 1b6) for major and non-major facilities. For the FY19 period of review, TDEC entered 99.9% of their permit limits and 99.4% of DMRs for NPDES major and non-major facilities.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
1b5 Completeness of data entry on major and non-major permit limits. [GOAL]	95%	93.5%	710	711	99.9%
1b6 Completeness of data entry on major and non-major discharge monitoring reports. [GOAL]	95%	92.3%	14077	14159	99.4%

State Response:

None

CWA Element 1 - Data

Finding 1-2

Area for Improvement

Recurring Issue:

Recurring from Round 3

Summary:

The accuracy of data between files reviewed and data reflected in the national data system needs attention.

Explanation:

Metric 2b indicated that 61.4% (27/44) of the files reviewed reflected accurate data entry of minimum data requirements (MDR) for NPDES facilities into the Integrated Compliance Information System (ICIS). Discrepancies observed between ICIS and the State's files were primarily related to missing or incorrect dates for inspections or Notices of Violations. Data accuracy was an Area for Attention in Round 3 and will be an Area for Improvement in Round 4. TDEC has committed to provide training regarding proper inspection dates as well as document upload dates versus mailing dates.

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%		27	44	61.4%

State Response:

The missing or incorrect dates are the result of staff inadvertently entering the wrong date in our state system. This will be corrected over the next couple of months with mandatory training for all staff who enter inspection data. This training is scheduled to be completed by September 30, 2022.

Recommendation:

Rec #	Due Date	Recommendation
1	09/30/2022	TDEC promptly corrected discrepancies once brought to the state's attention. In addition, TDEC has committed to provide training to inspectors on the proper dates to use for ICIS entry and training to all staff on the distinction between document upload dates versus mailing dates. By September 30, 2022, EPA will conduct a review of approximately ten to twelve randomly selected files. If TDEC has sustained improvements (85% or above) in data accuracy, this recommendation will be closed.

CWA Element 2 - Inspections

Finding 2-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC met or exceeded most of its FY19 CMS Plan and CWA §106 Workplan commitments.

Explanation:

Element 2 includes metrics that measure planned inspections completed (Metrics 4a1 - 4a10) and inspection coverages (Metrics 5a1, 5b1, and 5b2) for NPDES majors and non-majors. The National Goal for these Metrics is for 100% of state specific CMS Plan commitments to be met. The FY19 inspection results listed in the table below are from the CWA §106 Workplan end of year report (EOY). Based on review of the TDEC CWA §106 Workplan EOY, the State exceeded its CMS commitments in FY19 for SSO inspections (Metric 4a5), MS4 Phase I and Phase II inspections or audits (Metric 4a7), industrial stormwater inspections (Metric 4a8), Phase I and Phase II construction stormwater inspections (Metric 4a9), and CAFOs (Metric 4a10). The State met its CMS inspection commitments in FY19 for CSO inspections (Metric 4a4). The State fell one audit short of meeting its CMS commitments for pretreatment compliance audits and inspections. However, all facilities are audited every five years in accordance with the minimum inspection frequency. Based on review of the EOY, the State fell one inspection short of meeting its CMS commitment for inspection coverage for major permits (Metric 5a1); however, all major facilities are inspected every two years in accordance with the minimum inspection frequency. The State exceeded the commitment for inspection coverage for non-major permitted facilities (Metric 5b). The Region combined the NPDES minor individual and general permits inspections and universes into one commitment for FY19. Therefore, separate inspection coverages for Metrics 5b1 and 5b2 could not be ascertained from the FY19 CWA §106 Workplan EOY report. Completion of

commitments and inspection coverage was an Area for Improvement in Round 3. TDEC is commended for its substantial progress for these metrics.

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% of commitments%		60	61	98.4%
4a10 Number of comprehensive inspections of large and medium concentrated animal feeding operations (CAFOs) [GOAL]	100% of commitments%		5	4	125%
4a4 Number of CSO inspections. [GOAL]	100% of commitments%		1	1	100%
4a5 Number of SSO inspections. [GOAL]	100% of commitments%		36	13	276.9%
4a7 Number of Phase I and II MS4 audits or inspections. [GOAL]	100% of commitments%		40	19	210.5%
4a8 Number of industrial stormwater inspections. [GOAL]	100% of commitments%		449	229	196.1%
4a9 Number of Phase I and Phase II construction stormwater inspections. [GOAL]	100% of commitments%		1220	605	201.7%
5a1 Inspection coverage of NPDES majors. [GOAL]	100%		78	79	98.7%
5b Inspections coverage of NPDES non-majors (individual and general permits) [GOAL]	100%		1863	952	195.7%

State Response:

On the NPDES Majors and the pretreatment inspections, the inspection universe is such that every other year inspections are exceeded while on the remaining years the inspections may only reach 98%. This has been discussed with our inspection staff, and while TDEC is meeting the time frame for inspection commitments, TDEC will inspect a couple of extra facilities in those categories going forward to ensure commitments are met or exceeded during each calendar year.

CWA Element 2 - Inspections

Finding 2-2

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC's NPDES inspection reports were complete, provided sufficient documentation to determine compliance at the facility and were timely.

Explanation:

Metric 6a measures the percentage of on-site inspection reports reviewed that are complete and provide sufficient documentation to determine compliance. All forty-four (44) onsite inspection reports reviewed were complete and provided sufficient documentation to determine compliance. Metric 6b measures the percentage of inspection reports reviewed that are completed in a timely manner. TDEC follows EPA's National Pollutant Discharge Elimination System Enforcement Management System which provides guidance on timeliness of inspection reports: timely inspection reports are completed within 45 days of the date of inspection for sampling inspections and completed within 30 days for non-sampling types of inspections. Metric 6b indicated 95.5% (42 of 44) of TDEC's inspection reports reviewed were completed in a timely manner. The average number of days to complete inspection reports was 15 days, with a range of 1-66 days.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
6a Inspection reports complete and sufficient to determine compliance at the facility. [GOAL]	100%		44	44	100%
6b Timeliness of inspection report completion [GOAL]	100%		42	44	95.5%

State Response:

All inspectors have a timeline to enter inspections into the database to ensure timeliness. This will continue and TDEC will work with any staff who are not meeting the entry deadline.

EPA Response:

Metric 6b measures the percentage of on-site inspection reports that are completed in a timely manner. For each file, the time to complete an inspection report is based on the number of days between the date of the inspection and the date that the inspector’s report is reviewed by management and transmitted to the facility. The file review indicated that only two inspection reports were outside the guidance for inspection report timeliness.

The entry of inspection dates into ICIS is evaluated under Metric 2b – accuracy of data between files reviewed and data reflected in the national data system.

CWA Element 3 - Violations

Finding 3-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC consistently documented accurate compliance determinations.

Explanation:

Metric 7e measures whether accurate compliance determinations were made based on a file review of inspections reports and other compliance monitoring activity. The file review indicated that 100% (44 of 44) of the files reviewed consistently documented an accurate compliance

determination. Each of the files reviewed had accurate and complete descriptions of the violations observed and adequate documentation to support TDEC’s compliance determinations. The review indicator Metric 7j1 measures the number of major and non-major facilities with single-event violations (SEVs) reported in the review year. EPA commends TDEC on their continued data entry of SEV occurrences and commitment to ensure proper closure of those SEVs. Review indicator Metrics 7k1 and 8a3 measure facilities in noncompliance. Both metrics show percentages well below the national average. Accuracy of compliance determinations was an Area for Improvement in Round 3. TDEC is commended for its substantial progress.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
7e Accuracy of compliance determinations [GOAL]	100%		44	44	100%
7j1 Number of major and non-major facilities with single-event violations reported in the review year.			15		15
7k1 Major and non-major facilities in noncompliance.		18.4%			5.4
8a3 Percentage of major facilities in SNC and non-major facilities Category I noncompliance during the reporting year.		8.1%			2

State Response:

TDEC takes pride in ensuring the accuracy of compliance determinations. SNC rates are reviewed monthly, and TDEC continues to participate in SNC reduction work groups sponsored by EPA.

CWA Element 4 - Enforcement

Finding 4-1

Area for Attention

Recurring Issue:

No

Summary:

The State generally takes Enforcement Responses (ERs) which promote a Return to Compliance (RTC).

Explanation:

Metric 9a indicated that 80.6 % (29 of 36) ERs reviewed returned or were expected to return a facility to compliance. Review Metric 10a1 indicated that 0% (0 of 10) major facilities in SNC during FY19 received a timely formal ER. EPA’s review of the ten facilities indicated that three of the facilities were under an Order but the violation had not been linked to the formal ER; three of the facilities were issued informal ERs in FY19, with subsequent formal ERs in following fiscal years; two of the facilities were issued informal ERs during FY19; and two of the facilities, which were in SNC for DMR non-receipt, were brought into compliance with no ER.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
10a1 Percentage of major NPDES facilities with formal enforcement action taken in a timely manner in response to SNC violations		14.4%	0	10	0%
9a Percentage of enforcement responses that returned, or will return, a source in violation to compliance [GOAL]	100%		29	36	80.6%

State Response:

TDEC continues to pursue enforcement actions which will return violators to compliance in a timely manner. The latest annual average for percentage for timely enforcement is for fiscal year 21. During this most recent year, TDEC had 33% timely enforcement, which is approximately double the national average. TDEC continues to pursue and escalate enforcement actions as necessary to return all violators to compliance. Additionally, TDEC is instituting a priority deadline filter for SNC types of enforcement. The additional capability within our state database will allow a deadline for timeliness to be integrated into the tracking functionality for each enforcement order.

CWA Element 4 - Enforcement

Finding 4-2

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

The State's enforcement responses generally address violations in an appropriate manner.

Explanation:

Metric 10b indicated that 94.4 % (34 of 36) of the ERs reviewed addressed violations in an appropriate manner. With the exception of two permittees, TDEC's enforcement responses appropriately addressed non-compliance. For the two exceptions, multiple NOV's were issued with no enforcement escalation.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
10b Enforcement responses reviewed that address violations in an appropriate manner [GOAL]	100%		34	36	94.4%

State Response:

TDEC continues to work to ensure enforcement responses are adequate and appropriate to return violators to compliance.

CWA Element 5 - Penalties

Finding 5-1

Area for Attention

Recurring Issue:

No

Summary:

TDEC does not consistently document adequate rationale for the economic benefit component in penalty calculations.

Explanation:

Metric 11a measures the percentage of penalty calculations reviewed that document, where appropriate, gravity and economic benefit. Metric 11a indicated that 81.8% (9 of 11) files reviewed contained either economic benefit (EB) calculations or documentation that it was considered, with an adequate rationale for not including EB. TDEC’s Civil Penalty Worksheet incorporates a section for EB review in the penalty documentation and, if economic benefit was not pursued, requires supporting justification in the penalty worksheet narrative. For those files where economic benefit was included in the penalty, appropriate documentation of the calculation was included. In the two files without appropriate documentation, no supporting justification for not including EB was included in the penalty worksheet narrative. Documentation in the file that demonstrates the consideration of EB was an Area for Improvement in Round 3. Since the Round 3 review year, TDEC has consistently used the Civil Penalty Worksheet; the two files without appropriate documentation do not appear to indicate a systemic issue and can be monitored at the state level.

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%		9	11	81.8%

State Response:

TDEC incorporated economic benefit consideration into the penalty worksheet following the 3rd round of the SRF. Since that time, it has been routinely used when calculating orders. On the two examples where it was not documented, it was a typo by staff failing to completely fill out the worksheet. This will be addressed with additional staff training.

CWA Element 5 - Penalties

Finding 5-2

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

The State consistently documented any differences between the initial penalty calculation and the final assessed penalty as well as the collection of penalties.

Explanation:

Metric 12a measures the percentage of penalties reviewed that document the rationale for the final penalty assessed when it is lower than the initial calculated value. Metric 12a indicated that eleven of eleven (100%) files reviewed included adequate documentation of differences between the initial penalty calculation and the final assessed penalty. For one file, the upfront penalty was offset by a Supplemental Environmental Project (SEP); this file included adequate documentation of the calculation of the value of the SEP. Metric 12b measures the percentage of enforcement files reviewed that document the collection of a penalty. Metric 12b indicated that eleven of eleven (100%) files reviewed included either adequate documentation of penalty payment collection by TDEC or documentation that uncollected penalties had been referred to the Attorney General's Office for action. For the file that included a SEP, the state database included documentation that the SEP had been completed

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%		11	11	100%
12b Penalties collected [GOAL]	100%		11	11	100%

State Response:

TDEC routinely documents any rationale for differences in initial versus final penalty and will continue to do so going forward.

Resource Conservation and Recovery Act Findings

RCRA Element 1 - Data

Finding 1-1

Meet or Exceeds Expectations

Recurring Issue:

No

Summary

TDEC's RCRA Minimum Data Requirements for compliance monitoring and enforcement activities were complete in RCRAInfo.

Explanation:

Metric 2b measures the data accuracy and completeness in RCRA Info with information in the facility files. Thirty-two files were selected and reviewed to determine completeness of the minimum data requirements. The data was found to be accurate in 28 of the 32 files (87.5%), indicating that TDEC met the national goal for accurate entry of mandatory data.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
2b Accurate entry of mandatory data [GOAL]	100%		28	32	87.5%

State Response:

TDEC Division of Solid Waste Management (DSWM) has reviewed this report and confirms that data inaccuracies were not systemic in nature. Monitoring for the above-mentioned inconsistencies will be addressed with heightened, analytical vigilance. Multiple parties are involved with respect to inputting data into RCRA Info and internal state databases and records: Inspectors, Compliance & Enforcement Staff, Management, Permit Writers, and Technical Staff are all involved in a case or facility's chain of custody. Going forward, internal audits of all evaluations regardless of violation status will be reviewed by staff in central and field offices on a monthly basis. Once proper oversight has been administered, such audits will be reduced to quarterly reviews. Note: EPA indicated to DSWM that they had revised the score for Wit-Con TND987774809 to Y so this assessment will be changed to 28/32 or 88%.

EPA Response:

Metric 2b has been corrected to 28 out of 32 or 87.5%.

RCRA Element 2 - Inspections

Finding 2-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC met national goals for both TSDF and LQG inspections.

Explanation:

Metric 5a and 5b1 measure the percentage of the treatment, storage, and disposal facility (TSDF) and the percentage of large quantity generator (LQG) universes that had a Compliance Evaluation Inspection (CEI) during the two-year and one-year periods of review, respectively. TDEC met the national goal and exceeded the national average for two-year inspection coverage of TSDFs and the met the national goal and exceeded the national average for annual LQG inspections.

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%		20	20	100%
5b1 Annual inspection coverage of LQGs using RCRAInfo universe [GOAL]	20%		143	524	27.3%

State Response:

With past years as precedent, TDEC DSWM strives to exceed its compliance monitoring goals to serve and protect the State of Tennessee and its inhabitants. One of the most essential responsibilities has been comprehensive inspection coverage in which all Field Offices throughout Tennessee play part.

RCRA Element 2 - Inspections

Finding 2-2

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC's hazardous waste program inspection reports reviewed were well written, complete, and provided appropriate documentation to determine compliance at the facility.

Explanation:

Metric 6a measures the percentage of on-site inspection reports reviewed that are complete and provide sufficient documentation to determine compliance. All thirty-one (31) onsite inspection reports reviewed were complete and provided sufficient documentation to determine compliance.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
6a Inspection reports complete and sufficient to determine compliance [GOAL]	100%		100	100	100%

State Response:

TDEC DSWM acknowledges and appreciates the EPA’s thorough review during this SRF Round. Inspection reports are reviewed multiple times both by Field and Central Office personnel prior to being finalized and within timeframes. Roundtable meetings and trainings are regularly held pertaining to inspection-related initiatives, updates in protocol, best practices, and regulatory developments.

RCRA Element 2 - Inspections

Finding 2-3

Area for Attention

Recurring Issue:

No

Summary:

In general, the timeliness for most of the hazardous waste inspection reports were completed within the timeline outlined in the Tennessee Division of Solid Waste Management Hazardous Waste Program Enforcement Policy.

Explanation:

Metric 6b measures the percentage of inspection reports reviewed that are completed in a timely manner. The Tennessee Division of Solid Waste Management Hazardous Waste Program Enforcement Policy sets forth a 45-day timeline for hazardous waste inspection report completion.

Metric 6b indicated 80% (24 of 30) of TDEC's onsite inspection reports reviewed were completed in a timely manner. The six (6) inspection reports that exceeded the 45-day completion timeline did not appear to indicate a systemic issue and can be monitored at the state level.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
6b Timeliness of inspection report completion [GOAL]	100%		24	30	80%

State Response:

TDEC DSWM acknowledges and confirms the metric pertaining to timeliness of inspection reports. As described previously, TDEC DSWM will raise its vigilance in oversight of overall Compliance & Enforcement tracking and case development. This has required monthly and quarterly coordination with both Field and Central Office staff. Of note, the cases specified as untimely faced barriers to meet established timelines due to case complexity and delays in responses from facilities.

RCRA Element 3 - Violations

Finding 3-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC made accurate hazardous waste compliance determinations. In addition, significant noncompliance (SNC) determinations were timely and appropriate.

Explanation:

Metric 7a measures whether accurate compliance determinations were made based on a file review of inspection reports and other compliance monitoring activity (i.e., record reviews). The file

review indicated that twenty-nine of thirty (29 of 30) files reviewed (96.7%) had accurate compliance determinations. Each of the files reviewed had accurate and complete descriptions of the violations observed during the inspection and had adequate documentation to support TDEC's compliance determinations.

Metric 8b measures the percentage of SNC determinations made within 150 days of the first day of inspection (Day Zero). The data metric analysis (DMA) indicated that 86.7% of SNC determinations were made with within 150 days.

Metric 8c measures the percentage of files reviewed in which significant noncompliance (SNC) status was appropriately determined during the review period. The file review indicated that thirty-one of thirty-one of the files reviewed (100%) had appropriate SNC determinations.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
7a Accurate compliance determinations [GOAL]	100%		29	30	96.7%
8b Timeliness of SNC determinations [GOAL]	100%		13	15	86.7%
8c Appropriate SNC determinations [GOAL]	100%		31	31	100%

State Response:

TDEC DSWM will continue to monitor the development and timely resolution of significant noncompliance. TDEC DSWM appreciates the attention given to assessing accuracy and will respond with increased vigilance and review of such metrics through regular reporting and increased roundtable discussion of these case facets.

RCRA Element 4 - Enforcement

Finding 4-1

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC consistently issues enforcement responses that have returned or will return a facility in significant noncompliance (SNC) or secondary violation (SV) to compliance.

Explanation:

Metric 9a measures the percentage of enforcement responses that have returned or will return sites in SNC or SV to compliance. A total of thirty-two (32) files were reviewed that included informal or formal enforcement actions. Thirty-one of thirty-two (96.9%) of the enforcement responses returned the facilities to compliance or were on a compliance schedule to return the facilities back into compliance with the hazardous waste requirements.

Metric 10a measures the percentage of SNC violations addressed with a formal action or referral during the year reviewed and within 360 days of Day Zero. The data metric analysis (DMA) indicated that 92% of the FY 2019 cases (11 of 12) met the Hazardous Waste Enforcement Response Policy (ERP) timeline of 360 days. TDEC exceeded the national goal (80%) for this metric.

Metric 10b measures the percentage of files with enforcement responses that are appropriate to the violations. A total of thirty-two (32) files were reviewed with concluded enforcement responses. 100% (32 of 32) of the files reviewed contained enforcement responses that were appropriate to the violations.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
10a Timely enforcement taken to address SNC [GOAL]	100%		11	12	92%
10b Appropriate enforcement taken to address violations [GOAL]	100%		32	32	100%
9a Enforcement that returns sites to compliance [GOAL]	100%		31	32	96.9%

State Response:

As mentioned in the prior element’s response, TDEC DSWM will continue to monitor the development and timely resolution of significant noncompliance.

RCRA Element 5 - Penalties

Finding 5-1

Area for Improvement

Recurring Issue:

No

Summary:

TDEC does not consistently document adequate rationale for the economic benefit component or adjustments to the initial penalty including a justification for any differences between the initial and final assessed penalty in hazardous waste penalty calculations.

Explanation:

One of the objectives of the SRF is to ensure equitable treatment of violators through national policy and guidance, including systematic methods of penalty calculations. As provided in the 1993 EPA “Oversight of State and Local Penalty Assessments: Revisions to the Policy Framework for State/EPA Enforcement Agreements” it is EPA policy not to settle for less than the amount of the economic benefit of noncompliance (EBN) and a gravity portion of the penalty.

Following the SRF Round 1 and 2 evaluations, TDEC made significant progress on the documentation of Economic benefit (EBN) considerations by incorporating an “Economic Benefit Review Checklist” in the penalty documentation, and if EBN was not pursued a supporting

justification was included in the penalty worksheet narrative. These EBN penalty documentation improvements were documented during the SRF Round 3 evaluation. However, the SRF Round 4 evaluation revealed that TDEC has not consistently continued to include the “Economic Benefit Review Checklist” in the penalty documentation or supporting justification if EBN was not pursued in the penalty worksheet narrative. Metric 11a measures the percentage of penalty calculations reviewed that document, where appropriate, gravity and economic benefit. Metric 11a indicated that TDEC considered gravity and economic benefit in seven of nine (36.8%) of the penalty calculations reviewed.

Additionally, in accordance with the Revisions to the Policy Framework for State/EPA Enforcement Agreements (1993), states should document any adjustments to the initial penalty including a justification for any differences between the initial and final assessed penalty. Metric 12a measures the percentage of penalties reviewed that document the rationale for the final penalty assessed when it is lower than the initial calculated value. Metric 12a indicated that TDEC documented the difference between the initial and final penalty assessed in three of six (50%) of the penalty calculations reviewed. TDEC indicated during the SRF Round 4 evaluation, that due to confidentiality implications, documentation justifying the difference between the initial and final penalty assessed for one facility could not be released. The documentation for the other two facilities was not located in the facility files nor provided to EPA.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
11a Gravity and economic benefit [GOAL]	100%		7	19	36.8%
12a Documentation of rationale for difference between initial penalty calculation and final penalty [GOAL]	100%		3	6	50%

State Response:

With respect to metric 11a, TDEC acknowledges the explanation given and will proceed with explicitly providing further documentation and checklists with each penalty-associated violation.

TDEC DSWM reiterates its commitment to comprehensive review of any and all civil penalties with respect to each of these RCRA policy-defined elements: Deviation from Requirements, Potential for harm, Good Faith, Willfulness/Negligence, History of Non-compliance, and Economic benefit.

Although checklists were not formally attached to every individual penalty for a case, all case documentation including penalty worksheets were reviewed by other Compliance & Enforcement staff and TDEC’s Office of General Counsel. Penalty worksheets briefly reflected confirmation of such review for due diligence.

With respect to metric 12a, TDEC DSWM will develop and implement a process for explicitly documenting any adjustments to the initial penalty including a brief justification for differences between the initial and final assessed penalty.

TDEC DSWM appreciates the EPA’s recommendation and assistance in designing the appropriate process.

Recommendation:

Rec #	Due Date	Recommendation
1	09/30/2022	<p>Recommendation #1: TDEC subsequently provided “Economic Benefit Review Checklists” for the facility files found to be deficient after EPA notified the State of the preliminary SRF Round 4 findings. As such, EPA recommends that TDEC continue its efforts to consistently implement the previously developed “Economic Benefit Review Checklist” for documenting EBN considerations in penalty calculations, and if EBN is not pursued include supporting justification in the penalty calculation worksheet narrative. By September 30, 2022 TDEC should provide EPA with penalty calculation worksheets and where appropriate, the “Economic Benefit Review Checklist” for all penalty enforcement actions concluded during fiscal year 2022. If EPA’s review indicates that TDEC has sustained improvements (85% or above) for including the consideration of EBN in penalty calculations, this recommendation will be closed.</p>
2	09/30/2022	<p>Recommendation #2: EPA recommends that TDEC develop and implement a process for documenting any adjustments to the initial penalty including a justification for any differences between the initial and final assessed penalty. The process can be in the form of checklist or template of TDEC’s choosing. An example checklist is provided for TDEC’s convenience below.</p> <p>Name of Case: _____</p> <p>The original penalty amount of \$ _____ was reduced / increased to \$ _____ for the following reason(s):</p> <p>_____ 1. New factual information obtained; _____ 2. New legal information obtained; _____ 3. Projected costs of litigation; _____ 4. Other reason that does not fall under category 1, 2, or 3, with a brief summary of the reason for the reduction (e.g. SEPs, financial hardship).</p> <p>Explanation: If financial hardship is the basis of penalty reduction, has documentation (tax returns) been provided? Y _____ N _____.</p> <p>By September 30, 2022, TDEC should provide EPA with penalty enforcement action files concluded during fiscal year 2022. These files should include documentation for any adjustments to the initial penalty including a justification for any differences between the initial and final assessed penalty. If EPA’s review indicates that TDEC has made</p>

		significant improvements (85% or above) for documenting any adjustments, this recommendation will be closed.
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RCRA Element 5 - Penalties

Finding 5-2

Meets or Exceeds Expectations

Recurring Issue:

No

Summary:

TDEC included documentation in the files that all final assessed penalties were collected.

Explanation:

Metric 12b measures the percentage of enforcement files reviewed that document the collection of a penalty. There was documentation verifying that TDEC had collected penalties assessed in nineteen of nineteen (100%) of the final enforcement actions reviewed.

Relevant metrics:

Metric ID Number and Description	Natl Goal	Natl Avg	State N	State D	State Total
12b Penalty collection [GOAL]	100%		19	19	100%

State Response:

TDEC DSWM confirms the results of the EPA’s review. TDEC DSWM meticulously tracks collection of penalties, overall case status, and return to compliance for any facility facing formal enforcement.