ASTSWMO Webinar: RCRA Alternative Compliance Monitoring Strategy

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Agenda

1. RCRA Compliance Monitoring Strategy (CMS) Overview
2. Alternative CMS Options
3. Processes for Requesting and Reporting Alternative CMS
4. Summary- Lessons Learned from EPA Regions
5. Questions

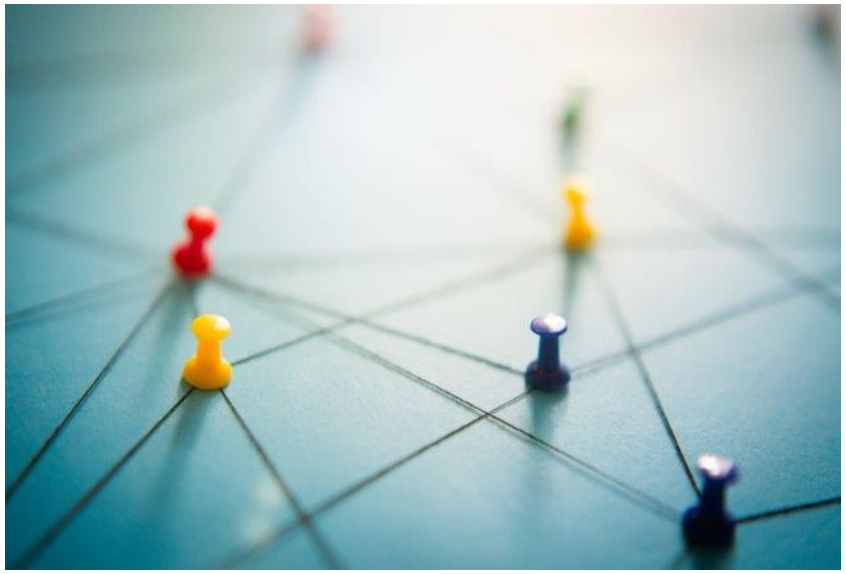
RCRA Compliance Monitoring Strategy Overview

What Is a Compliance Monitoring Strategy?

- A compliance monitoring strategy (CMS) is a guidance document that establishes inspection expectations or goals for program areas (i.e., CAA, CWA, RCRA)

- The strategy is implemented through the annual National Program Guidance (NPG)
  - Defines performance measures for EPA regions, which in turn influence yearly commitment discussions with states

Why Have a Compliance Monitoring Strategy?



- Creates national consistency on how to perform compliance monitoring
- Sets minimum set of expectations and logic for targeting inspections
- Consolidates RCRA program requirements into one framework
- Clarifies roles and responsibilities of Regions and authorized States
- Clarifies procedures for reporting results

RCRA CMS Key Content

- Compliance Monitoring Program Description
- RCRA Inspections
  - **Inspection Goals –** Types of facilities, types of inspections, and frequency of inspections
    - **100% Treatment, Storage and Disposal Facilities (TSDF) annually for govt.-owned, biennially for privately-owned**
    - **20% Large Quantity Generator (LQG) and Pharmaceutical Reverse Distributor (RD) universes**
- Priorities and Targeting
- Data Management
- EPA's Oversight Responsibilities

EPA and State Roles in Inspections

- Authorized States assess facility compliance and ensure adequate inspection coverage
- Federal inspectors assess compliance and provide appropriate oversight and assistance to States
  - Federal inspectors use state regulations in authorized states
- Work together to determine role in Indian Country to reach 20% of LQG and RD requirement

Facility Types and Inspection Frequency

EPA defines the Comprehensive Evaluation Inspection (CEI) as the standard for a "thorough" inspection.

Facility Type	Inspection Frequency
TSDF- Gov't. Owned	Annually
TSDF- Non-government	Bi-annually • At least 50% of universe • Complete Universe in 2 years
TSDF Flexibilities	• Within limits, FCIs at operating TSDFs with record of compliance • GME/OAM inspections for CEIs at post-closure TSDFs

Facility Type	Inspection Frequency
Large Quantity Generators	Annually : • 20% of combined LQG and RD universe • Every five years, all facilities are inspected
Pharmaceutical Reverse Distributors	
Other Generator Types, Transporters, Other RCRA Handlers	Frequency not specified; may be included in annual work plans

Alternative CMS Options

Alternatives to CMS-Stated Goals

- TSDF inspection requirements are defined in legislation
  - RCRA § 3007 mandates “thorough” inspections annually at government-owned facilities and biennially at privately-owned facilities.
  - Some flexibilities relative to compliance status, no formal proposal
- Flexibility is available for the 20% LQG and RD goals
  - Pre-approved: Defined approaches, previously vetted for alternatives to the annual 20% inspection goals – No HQ consultation
  - Unique proposals: States may want to implement unique alternatives – Requires HQ consultation

Pre-Approved LQG Alternatives

- Substitutes requirement of 20% of combined LQG and RD universes
  - Applies only to LQG compliance monitoring and not TSDFs
- Recommended that resources redirected from LQG inspections not RD for at least two, 5-year cycles
- Substitution must be submitted in a plan, approved by EPA
- **Four pre-approved alternative approaches**
  - **80% approach**
  - **Greater Than 5 Tons BRS Approach**
  - **Straight Trade-Off Approach**
  - **Retail Pharmacy Differentiation Approach**

Alternative 1- The 80% Approach

- Determine number of LQG inspections by amount of waste generated rather than facility universe number
- Identify number of LQGs and amount of waste generated by LQGs and non-LQGs.
- Inspect those LQGs that account for 80% of total (LQG + non-LQG) waste
- Direct remaining resources for other handler inspections to maximize outcomes
  - Outcomes would include amount of waste properly handled and waste not properly handled at the time of the inspection.

Alternative 1- The 80% Approach Cont.

Example-

Regular CMS: Universe of LQG facilities = 150 LQGs

- **20% = 30 LQGs inspected**

Alternative CMS: Total Waste for LQG + non-LQG = 500,000 tons

- **10 LQGs in state generate 80% of the waste or 400,000 tons**

10 LQGs inspected and the resources for 20 LQG inspections may be directed to other handlers.

Alternative 2- Greater than 5-ton BR Approach

- Determine number of LQG inspections by amount of waste, rather than facility universe
- Appropriate for states that have mid to low-range LQGs (LQGs generating >1,000 kg per month only once or twice a year)
- Direct remaining resources to other handlers

Example-

- **CMS: Universe = 150 LQGs 20% = 30 LQG inspections**
- **Alt: 100 LQGs generate > 5 tons 20% = 20 LQG inspections**

20 LQGs inspected rather than 30 LQGs. Resources equivalent to 10 LQGs may be directed to other handlers.

Alternative 3- The Straight Trade-off Approach

- Instead of 20% LQG, State could reduce LQG inspections to between 10% and 20% of its LQG universe and dedicate the rest of their resources to other handlers.
- Resources must be equivalent: a commonly accepted application is 2:1 SQGs.
- Inspections must be full CEIs.

Example-

Universe = 150 LQGs 20% = 30 LQG inspections
10% = 15 LQG inspections
Under Alternative 3, 15 LQGs and 30 SQGs would be inspected.

Alternative 4- Retail Pharmacy Differentiation Approach

- Inspect 5% of LQG chain pharmacy universe each year and inspect 20% of the traditional LQG universe.
- Appropriate for a state with a large number of retail pharmacies that may be LQGs mainly for P-listed waste.
- May be utilized less with the passage of the Pharmaceutical Rule but is still used in some states.
- Inspections must be full CEIs.

Example-

Universe = 150 LQGs 20% = 30 LQG inspections

20 LQGs are retail pharmacies

130 “traditional” LQGs

Under Alternative 4, 26 (130 x 0.2) traditional LQGs and 1 (20 x 0.05) retail pharmacy LQG would be inspected.

Processes for Requesting and Reporting Alternative CMS

Written Plan - Content

1) Description of the state's known universe – Describing the size and benefits/outcomes of the program (Number of each type of generator and the estimated quantities of waste generated in the state)

2) Baseline - Using BR or agreed upon database to identify the number CEIs the state would have had to conduct to meet 20% LQG universe requirement.

3) Problem statement – Describing the problems being missed by the standard approach.

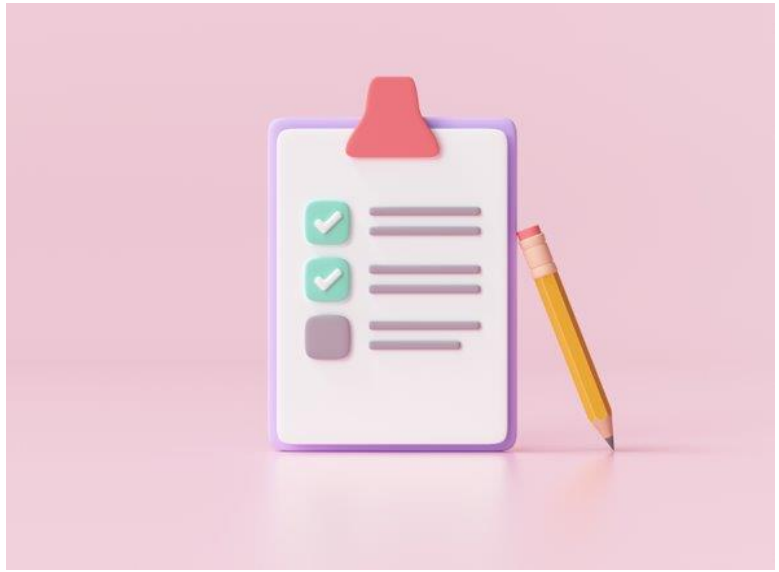
4) Planned mix of inspections – Showing that the state's overall level of effort for inspections will not decrease.

5) Mix of tools – (If applicable) Describing how the alternative approach for inspections will be used in conjunction with assistance or incentive approaches to try to maximize outcomes.

6) Expected outcomes – Qualitative description of the outcomes the state expects to achieve by adopting this alternative approach compared to what the state would expect by following the standard approach.

7) Measurement plan – Quantitative measures on how state will collect, store and report on the data.

Approval



- During annual work plans negotiations, the State should submit:
  - Which approach they are selecting,
  - The number of LQG inspections and alternative inspections,
  - An agreement for collecting identified outcomes and providing year end analysis, and
  - Written plan
- Region will review to ensure that all the elements are appropriately captured, and it may be approved by the region without much, if any, need for negotiation
- If an alternative plan cannot be agreed upon by mid September, then it is expected that the state will follow the standard approach (inspect 20% of the LQG and RD universe) for that federal fiscal year.

End of Year Reporting

- Should include elements of the plan and analysis and outcomes from the alternative approach
- Examples of outcomes
  - Approximate quantities of waste being handled in accordance with regulations
  - Updated generator status of regulated facilities (e.g., from SQG to LQG) in RCRAInfo
  - Reporting the quantities of waste not being handled properly at the time of inspection but, thereafter, being handled properly due to Agency actions

LQG Flexibility Plan- Region 1 Example

Application for a RCRA Alternative Compliance Monitoring Strategy

For Federal Fiscal Year 2025-2026

July 24, 2024

Introduction

The *State Agency* is applying to continue with a RCRA Alternative Compliance Monitoring Strategy (ACMS) for FFY 2025-2026 period. An Alternative Plan has been implemented each year since 2013. The proposed strategy is detailed below.

Based on the most recent analysis, FFY 2023 RCRA ACMS End-of-Year Report (attached), *State Agency* believes that carefully targeted inspections of smaller and non-notifier sources alongside LQGs result in greater environmental benefit than continuing to re-inspect only *State* based Large Quantity Generators (LQGs) at the standard frequency required by the EPA RCRA Compliance Monitoring Strategy (CMS).

This RCRA ACMS application has four parts:

- **Proposed *State* RCRA ACMS**
- **Discussion of multi-media inspections of Small and Very Small Quantity Generators**
- **Objective and Expected Outcomes**
- **Measurement Plan**

Proposed *State* RCRA Alternative CMS

As of July 24, 2024, **there are 650 "active" Large Quantity Generators of Hazardous Waste (LQGs) in the *State Agency* Site Management System. 551 are "traditional" LQGs and 99 are independent pharmacies or captive pharmacies in "big box" stores that have registered as LQGs due to waste nicotine gum and/or pharmaceuticals**. In addition, there are 9 TSDFs and approximately 14 are remediation sites. Note, universe counts can change frequently based on daily notification activity. Due in part to the recent *State Agency* adoption of the smoking cessation products exemption from the P075 acutely hazardous waste listing for nicotine, many retail pharmacies are in the process of downgrading from LQG status.

The standard EPA CMS requires *State Agency* to inspect 20% of "traditional" LQGs (to achieve inspection of the entire LQG universe every five years) and 50% of non-government TSDFs per year (to achieve inspection of all TSDFs biennially).

***State Agency* proposes the following Alternative CMS for FFY 2025-2026:**

- **Conduct full inspections of all TSDFs (9) every two years. Note, all TSDFs are inspected annually in accordance with *State* statutory requirements.**
- **Conduct full inspections of the 551 "traditional" LQGs (those that are neither remedial waste sites, TSDFs, nor pharmacies) once every eight years.**
- **Inspect "newly registered" LQGs within five years of registration.**
- **Conduct inspections at additional traditional LQGs to meet the minimum requirement of 10% LQGs.**
- **Conduct inspections of 5% of the Pharmacy LQG Universe (99) annually, in accordance with the Retail Pharmacy Differentiation Approach (Alternative #4 in the 12/6/2021 RCRA CMS).**
- **Continue to rely on the *State* privatized waste site clean-up program which uses Licensed Site Professionals to oversee work at the 14 remediation sites.**

LQG Flexibility End of Year Report- Region 1 Example

RESULTS OF *STATE*'S
FFY 19-21 CLEAN AIR ACT/RESOURCE CONSERVATION AND RECOVERY ACT
ALTERNATIVE COMPLIANCE MONITORING STRATEGIES

November 13, 2024

From FFY19-21, *State Agency* had EPA approved Alternative Compliance Monitoring Strategies (ACMS) under the Clean Air Act (CAA) and Resource Conservations and Recovery Act (RCRA) programs. **Under the terms of the individual ACMSs, *State Agency* would be allowed to extend facility evaluation schedule and inspection frequency for traditional "major" sources (OP, SM80, Offsite ACE, LQG) allowing *State Agency* the opportunity to focus on smaller facilities that may be under-regulated or are operating outside of the system.** See Attached approved (CAA & RCRA ACMS). In exchange for this reduced inspection frequency, *State Agency* inspects 100[1] carefully targeted "minor" facilities (ACMS Facilities) selected based on their suspected noncompliance with CAA or RCRA regulations.

***State Agency* implements a multi-media Compliance & Enforcement (C&E) program and because of this approach, the planned C&E activity involves additional CAA/RCRA inspections beyond those targeted through the ACMS**. For example, *State Agency* typically conducts a hazardous waste multi-media compliance and enforcement inspection at the majority of the air pollution sources that *State Agency* is required to inspect per its EPA approved CAA ACMS. These are often SQGs or VSQGs**. In addition, *State Agency* routinely inspects major sources that are not "due" for inspection in a given year.** Either we receive a complaint or other information about a facility that leads us to believe an inspection is warranted, or we move some inspections due in a future year to the present year to prevent wide fluctuations in the number of inspections due each fiscal year.

State Agency adopted this strategy as a way to identify high risk and underregulated facilities since historic data indicate that compliance problems are often more common at minor sources than regularly visited major sources. The tables that follow summarize the results of our FFY2019-2021 work. The data continue to show:

- **ACMS effort assists in identifying facilities operating out of status and new sources**
- **More violations at the minor facilities than at the majors**
  - **58% of inspections result in enforcement at the minors; 19-36% at the majors**
- **Over 65% of all inspections across all categories were conducted in Environmental Justice communities.**
- **The rate of inspections resulting in enforcement in environmental justice communities is consistent with the rate in all other communities.**
- **Inspections at minor and major sources result in Lower-Level Enforcement (LLE) at higher rate than Higher-Level Enforcement (HLE)**
  - **Major sources: average of 27% of inspections result in LLE; 2% result in HLE**
  - **Minor sources (ACMS): 50% of inspections result in LLE; 8% result in HLE**
- **The rate of HLE at Environmental Justice (EJ) facilities is higher than at non-EJ facilities.**
  - **5.2% of facility inspections in EJ communities resulted in HLE, vs 2.9% in non-EJ communities with24 HLE at facilities in EJ communities; 7 HLE at facilities in non-EJ communities.**

Straight Trade Off Approach (2:1) Region 5 Example

I. Summary of Plan

- The Compliance Monitoring Strategy (CMS) for the RCRA Subtitle C Program (September 2015) states that authorized states should inspect at least 20% of the large quantity generator (LQG) universe annually to ensure that every LQG is inspected no less often than once every 5 years. The CMS also allows for flexibility in fulfilling this objective to improve the overall outcomes of compliance assurance activities at hazardous waste generators in *State*. For various reasons outlined in this flexibility plan, the State Agency will reduce our **[KEY INFO]** **FY 2024 Performance Partnership Agreement (PPA) commitments for LQGs and increase our commitments for SQGs, resulting in an overall increase in *State* RCRA Subtitle C generator inspections annually. This modification will result in LQGs being inspected every 7 years instead of every 5 years.**

II. Background

- **[DESCRIBE UNIVERSE]** According to data pulled from RCRAInfo from previous years and for the current FFY2024 workplan, the universe of hazardous waste generators in *State* have been and currently are:

	FY20	FY21	FY22	FY23	FY24
LQGs:	1,115	1,030	772	738	726
SQGs:	13,787	4,855	4,767	4,434	3,919
VSQGs:	12,417	12,397	13,006	13,295	13,463
Totals:	27,319	18,282	18,545	18,467	18,108

- As stated above, the universe numbers above were generated from RCRAInfo, although *State Agency* uses our Hazardous Waste Annual Report system to determine the total number of LQGs in *State* as that system produces more accurate and up-to-date generator status data than RCRAInfo. Once *State Agency* removes the one-time remediation waste generators and the pharmaceutical waste generators from the total LQG universe numbers, we typically utilize approximately 600 LQGs as our total "inspectable" LQG universe for inspection planning and PPA commitments. **[DESCRIBE CHANGE]** **Although 20% of 600 is 120, the current state target is 66 as listed in the PPA. *State Agency* has always exceeded their commitments.**

III. Methodology

- The RCRA STAG funding allocation methodology reduces the emphasis on LQGs and increases the emphasis on SQGs this shift in generator emphasis is consistent with the direction *State Agency* would like to go with its inspections. **[EXPLAIN RATIONALE]** ***State Agency*** **is at a stage in our RCRA Subtitle C program where, due to the reduced number of LQGs outside of the *City* metropolitan area, we sometimes inspect the same LQGs more frequently than every five years**. The majority of those LQGs are found to be operating in compliance with all environmental requirements year after year. W**e do not believe these repeated inspections are the best use of limited resources, nor do they provide the most "bang for the buck" in improving the compliance rate of *State* hazardous waste generators as a whole and protecting human health and the environment.** Therefore, we are proposing a reduction in LQG inspection commitments and the addition of SQG inspection commitments.

- Like last year, the USEPA has asked the *State Agency* to increase the number of inspections at non-operating TSDFs conducting closure or post-closure care activities. The goal is to inspect all non-operating TSDFs in the *State* once every three years. There are currently around 60 non-operating TSDFs according to the RCRAInfo. This will require the *State Agency* inspect approximately 20 such facilities annually.

IV. Proposal/Outcomes

- To offset the increased inspections at non-operating TSDFs and scrap metal/salvage yards, and based on a shift in emphasis from LQGs to SQGs, **[INCLUDE MEASURES]** **the *State Agency* can commit to conducting at least 66 LQG CEIs and 215 SQG CEIs and 20 (either CEI, FCI, CME, or OAM) inspections at non-operating TSDFs in FY 2024.** The *State Agency* anticipates exceeding its commitments as it has in the past.
- The 66 LQGs are identified by analyzing our 2023 Annual Hazardous Waste Reports. The 215 SQGs, as well as any additional SQG CEIs conducted, are identified by the regulatory status of the generators in RCRAInfo *at the beginning of FFY 2024*. Please note that RCRAInfo reports at the end of the federal fiscal year will not provide an accurate assessment of our LQG/SQG inspection achievements during the preceding fiscal year. This is due to our real-time updating of each inspected generator's regulatory status in RCRAInfo. For example, if an inspector determines an SQG is a non-handler, the *State Agency* will update RCRAInfo to accurately reflect the status change. That facility will not be listed in RCRAInfo as an SQG at the end of the fiscal year when USEPA generates a list of generator CEIs conducted during the preceding fiscal year. This notion aligns with the yearly reduction in the RCRA universe of hazardous waste generators in *State* as illustrated above.

Lessons Learned from Regions

Lessons Learned

- Most Region 1 and 5 states have done either the straight trade-off or the retail pharmacy flexibility approach and use a 2:1 trade-off
- Still working to get all flex inspections coded into RCRAInfo
  - Use of commitment field (per CMS instructions)
- Requires additional narrative when conducting Annual Data Metric or SRF reviews
- Has allowed states to do work that is environmentally significant and to inspect previously unaddressed RCRA handlers.