



# *EPA Enforcement Alert*

## **National Compliance Initiative**

### **Focus on RCRA Air Emissions**

Office of Civil Enforcement

#### **Purpose**

This Alert provides information to the regulated community on frequently cited compliance issues associated with air emissions from hazardous waste, recent enforcement case settlements, EPA inspection approaches, facility best practices, as well as the importance of carefully considering both the Resource Conservation and Recovery Act (RCRA) and Clean Air Act (CAA) requirements when addressing organic air emissions. This Alert also provides a reminder on the relationship between the CAA “once in always in” policy and RCRA permitting.

As part of OECA’s National Compliance Initiative (NCI) focused on Reducing Hazardous Air Toxic Emissions at Hazardous Waste Facilities, the EPA has found numerous violations and compliance issues at hazardous waste large quantity generators (LQGs) and treatment, storage and disposal facilities (TSDFs) relating to failure to control organic air emissions from certain hazardous waste management activities. The Organic Air Emission Standards are found in Title 40 of the Code of Federal Regulations (CFR) parts 264 and 265, subparts AA, BB and CC (collectively referred to as “RCRA air” regulations). Subpart AA controls air emissions from certain process vents, Subpart BB controls air emissions from specific equipment leaks, and Subpart CC controls air emissions from certain tanks, containers, and surface impoundments.

Uncontained organic air emissions from TSDFs managing hazardous wastes contribute significantly to ambient ozone formation, increased cancer rates, and other health risks. Releases to the air from process vents, equipment, tanks, containers and surface impoundments can result in onsite worker exposure, and at times, nearby community exposure, to hazardous waste volatile organic compound (VOC) emissions. Emissions of hazardous waste VOCs increase the potential for fire and explosions on site and may present risks to first responders.

#### **Progress Towards Compliance: RCRA Air NCI Inspections Fiscal Year 2017-2019**

Over a two-year period, the EPA completed 325 inspections at RCRA facilities for compliance with air emission requirements. These inspections were at both TSDFs and LQGs that collectively manage over 3.8 million tons of organic hazardous waste annually. During these inspections, hundreds of

#### **Field Monitoring to Determine Compliance**

*EPA inspectors use field monitoring equipment to ensure compliance with RCRA air emission standards through a combination of traditional laboratory sampling, Forward Looking Infrared cameras, Photo and Flame Ionization Detectors, colorimetric tubes and other devices. The EPA actively looks for leaks and will take enforcement actions to control air emissions and return facilities to compliance.*

ongoing emission leaks were identified and immediately repaired, preventing potential fire or explosion, and addressing occupational threats. The EPA's air emission inspections continue to find compliance issues that often result in EPA enforcement actions. These compliance issues include the failure to monitor for releases, improper claims that equipment is exempt from RCRA air regulation, and noncompliance related to air emissions releases from pressure relief valves and tank closure devices.

### Monitoring for Releases

The RCRA air regulations require facilities to properly monitor certain process vents, equipment, tanks, containers, and surface impoundments. Monitoring may include visual, audible, and olfactory detection methods, among other methods, or may be performed by use of instruments that meet the performance criteria of Reference Method 21 (40 CFR Part 60 Appendix A), which is used for detecting emissions (e.g., leaks,



Potential Tank Defect/Leak

defects, or exceedances of No Detectable Emissions).

Monitoring violations may arise when instrument (i.e., photo or flame ionization detector (PID or FID)) calibration is faulty or incomplete, or the required



FID LDAR Monitoring

monitoring is not performed correctly, accurately, or with the proper frequency as required in the regulations. For a facility to ensure compliance with the regulations, it must actively look for emissions. As illustrated in the adjacent pictures, proactive monitoring will identify equipment failures resulting from ruptured discs, flanges, and gaskets. Monitoring for releases is critical and can result in early

detection of minor emissions before larger emissions occur.

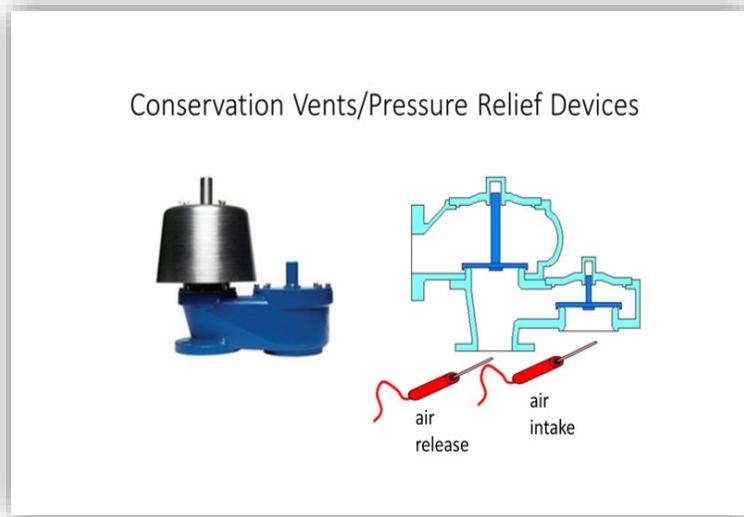
### Exempt Equipment Under the RCRA Air Regulations: Careful Consideration of Regulatory Criteria is Critical

The RCRA air regulations provide criteria that facilities must use to determine whether equipment is exempt from the RCRA air regulations. It is important that facilities correctly and carefully apply these criteria to determine whether their equipment meets any of the exemptions. One example is the Subpart BB exemption for pieces of equipment that contain or contact Subpart BB regulated waste for *less than 300* hours per calendar year. See 40 CFR § 264.1050(f) and 40 CFR § 265.1050(e). This is a cumulative hour requirement (not consecutive hours) over the course of a year. Whether or not in service, if the unit contains or contacts residuals that meet the Subpart BB applicability threshold of 10 percent by weight organics for 300 or more hours per calendar year, it is subject to the air emission requirements. See 62 Fed. Reg. 64,641 (1997). Facilities that assert the less than 300-hour per calendar year exemption must positively identify and record the piece of equipment in the operating record. Exempt units must be identified in the operating record, "either by list or location (area or group) of equipment that contains or contacts hazardous waste with an organic concentration of 10 percent by weight for less than 300 hours per calendar year." See 40 CFR §§ 264/ 265.1064(g)(6).

### Organic Air Emission Releases from Pressure Relief Valves and Tank Closure Devices

EPA commonly identifies failure to maintain properly functioning pressure relief valves and tank closure devices (e.g., conservation vents) as an area of concern, which result in releases of hazardous waste air emissions. See 40 CFR §§ 264/265.1054. EPA inspectors have frequently found noncompliance where

pressure relief valves or conservation vents are stuck open, allowing a continuous release of emissions from hazardous waste into the air. Additionally, inspections have frequently discovered defects on tanks where tank-closure devices are not maintained, are left open, or are not tightly cinched down. *See, e.g., 40 CFR § 264.1084(c)(2) and 40 CFR § 265.1085(c)(2).* Facilities need to review the tank design operating pressure and the waste vapor pressure managed in the tank to ensure the vapor pressure from the waste in the tank is less than the maximum vapor pressure limit for the tank design capacity, as well as to determine the set pressure for the pressure relief valve. *See e.g., 40 CFR § 264.1084 and 40 CFR § 265.1085.* Inspectors have seen instances of pressure relief valves set incorrectly and manway hatches left unsecured, resulting in constant venting of organic vapors into the atmosphere.



*Pressure relief valves or conservation vents are designed to protect tanks against overpressure or vacuum during loading or unloading. However, the EPA has found these types of equipment to be sources of air emissions even when materials are not being pumped into or out of the tank. As shown here, there can be multiple potential emission points (fresh air intake and air release) on these types of equipment. Facilities are encouraged to add these types of monitoring to their leak detection and repair (LDAR) monitoring program and to regular Subpart J inspections.*

### Case Settlement: Decostar Industries, Inc.

Decostar manufactures parts for various automobile manufacturers in Carrollton, Georgia, and is a large quantity generator of hazardous waste. On May 26, 2016, the EPA and the State of Georgia conducted a RCRA Compliance Evaluation Inspection.

A subsequent enforcement action addressed the numerous compliance issues found in the inspection, including violations of RCRA Subparts BB and CC. The case cited Subpart BB violations for failure to conduct inspections, maintain and operate the facility to prevent a release, provide required training, and establish and maintain emergency preparedness and prevention procedures. Subpart CC violations included failure to properly and/or adequately determine the level of air emission controls, design and install the fixed roof and/or closure device, properly monitor hazardous waste for leaks, make repairs within the required number of days, and maintain records on tank defects and repairs taken.

During and directly after the inspection, Decostar took immediate proactive steps to address its Subpart CC violations requiring no further injunctive relief for Subpart CC. However, the subsequent enforcement action required Decostar to develop a "BB Equipment Program" document within 60 days to ensure Subpart BB compliance in its ongoing operations, including cataloging all regulated equipment, monitoring, and recordkeeping, developing a tracking program, and developing an implementation plan.

The settlement included a penalty of \$377,900 with the remaining penalty amount mitigated by Decostar's upgrade to certain equipment under a supplemental environmental project (SEP) valued at over \$2.7 million. The SEP includes the replacement of existing robots and paint applicators with devices that increase transfer efficiency. <https://www.epa.gov/enforcement/decostar-settlement-information-sheet>

## EPA Inspection Approaches for Ensuring Compliance

Understanding the EPA's approach to RCRA air inspections can be helpful to those working to maintain compliance with the regulations. Some common elements in inspections include:

- Real-time monitoring for leaks using PIDs and FIDs to perform Method 21 monitoring, as well as using Forward Looking Infrared (FLIR) cameras to identify releases to the environment;
- Process-based inspections and sampling of waste to review and determine which process vents, equipment, tanks, containers, or surface impoundments may be subject to regulation, and ensuring that all subject equipment is included in a facility's RCRA air program; and
- Conducting thorough record reviews to ensure a facility is meeting requirements for equipment identification, location, tagging, leak detection monitoring, calibration of instrumentation, and leak repair timeframes, among other documentation requirements.

### Facility Best Practice Recommendations

The following section offers a few best practices that the EPA has found to be effective in implementing a successful RCRA air program. While these are not required under the regulations, facilities that have implemented these practices have been found to have fewer violations. They are offered here for consideration.

- (1) Proactive replacement of aging equipment. The EPA encourages companies to proactively identify and replace faulty equipment or closure devices, including pressure relief valves and conservation vents, among other types of equipment. A facility may implement various approaches depending on its operations. These approaches may include:

- Developing lowered internal leak definitions for valves and pumps. Facilities that have internally lowered the leak definitions at their facility (*e.g.*, for valves and pumps or for equipment most likely to leak), are able to reduce errors and provide a margin of safety for identifying leaking components.
- Implementing a program with more frequent monitoring of equipment most likely to leak. This will ensure that leaks are being identified and repaired in a timely manner and that previously unidentified leaks are not worsening over time.
- Implementing a proactive process for pressure relief valve and tank closure monitoring, including operation and maintenance plans, and incorporating the plan into Subpart J inspections via the written plan and schedule in 40 CFR § 264.1088 and 40 CFR § 265.1089.



FLIR Image of Process Vent

Some facilities have seen evidence of equipment failure from ruptured disks, flanges, or gaskets and quickly perform repairs in order to prevent releases. These early corrective actions taken by facilities to regularly and proactively maintain and replace equipment protect workers and communities from potential exposures.

- (2) Subpart BB Equipment Program. Some facilities have implemented a customized facility-wide RCRA Subpart BB equipment program. This type of program encapsulates the facility Subpart BB requirements with useful best practices into one document. These may include: basic applicability

determinations for specific equipment; lists of all equipment subject to Subpart BB; leak definitions and monitoring frequencies as required in the regulations; a tracking program for older Subpart BB equipment; and a program for ensuring that new Subpart BB equipment is added to the LDAR monitoring plan. It may also designate the roles and responsibilities of employee and contractor personnel assigned to Subpart BB functions at the facility. A Subpart BB equipment program designed by the facility based on its own Subpart BB operational needs will ensure that all employees are on the same page with Subpart BB compliance.

- (3) Subpart BB Less Than 300-hour Exemption. Where a facility asserts the less than 300-hour per calendar year exemption, the facility must positively identify the equipment in the operating record. *See* 40 CFR §§ 264/265.1064(g)(6). A best practice to ensure that the equipment is no longer containing or contacting hazardous waste residue is to clean or flush the piece of equipment with solvent and dry it with an air or nitrogen purge or other non-hazardous waste material (or water) capable of removing the liquid and gas. The waste that had been present, the times operated, routine methods of cleaning or flushing, and the date and time of cleaning or flushing should be recorded for purposes of recordkeeping and demonstrating the exemption. Utilizing this best practice ensures the operating record can properly document that the requirements for exemption have been met.

### **RCRA Air Emission Standards Relationship to the CAA**

Section 1006(b)(1) of RCRA requires that RCRA provisions avoid duplication with CAA standards to the maximum extent practicable. Similarly, section 112(n)(7) of the CAA directs the EPA to ensure, to the maximum extent practicable, consistency between the requirements of CAA section 112 and RCRA Subtitle C requirements for the source category.

To implement RCRA section 1006(b)(1) and CAA section 112(n)(7), the EPA included provisions in the RCRA air regulations that avoid duplication with the CAA. However, these provisions do not state that compliance with applicable CAA requirements alone constitutes compliance with RCRA air regulations. In order to ensure RCRA air compliance where a facility has a CAA permit, it is important to understand the particular exemption and compliance election provisions of subparts AA, BB, and CC. This ensures that Subpart AA process vents, Subpart BB equipment, and Subpart CC tanks, containers, and surface impoundments are each regulated in accordance with either the CAA or RCRA.

### **Subparts AA and CC Exemption**

Both subparts AA and CC contain an exemption for air emission controls

### **Case Settlement: Tradebe Treatment and Recycling Northeast, LLC**

The judicial settlement entered in February 2019, resolved RCRA and CAA violations at two TSDFs in Meriden and Bridgeport, Connecticut.

EPA inspections detected organic air emissions from hazardous waste management tanks. A subsequent enforcement action addressed Subpart BB and Subpart CC inspection and monitoring failures. All RCRA air violations were corrected. The CAA violations were resolved when Tradebe obtained area (minor) source air permits so that the facilities were no longer covered by CAA hazardous air regulations.

Injunctive relief included over \$900,000 of improvements, including replacement of its current air controls for hazardous waste tanks with thermal oxidizers and the purchase of new leak detection equipment for both facilities. The oxidizers are installed under RCRA air regulations that contain the same emission limits (95% control) as CAA regulations.

The settlement required Tradebe to pay a \$525,000 penalty. <https://www.epa.gov/enforcement/tradebe-treatment-and-recycling-northeast-llc-settlement-information-sheet>

under RCRA where the owner/operator *certifies* that each process vent that would otherwise be subject to Subpart AA, or that a tank, container, or surface impoundment that would otherwise be subject to Subpart CC, is equipped with, and operating air emission controls in accordance with an applicable CAA regulation codified under 40 CFR parts 60, 61, or 63. Both exemption provisions are unit-specific and state that relevant portions of Subpart AA and Subpart CC do not apply if the owner or operator certifies compliance with the applicable CAA requirements. *See* 40 CFR § 264.1030(e) and 40 CFR § 265.1030(d) for Subpart AA and 40 CFR §§ 264/265.1080(b)(7) for Subpart CC.

To qualify for the air emission control exemption in subparts AA and CC, *each* subject unit must be equipped with, and operating air emission controls per an applicable CAA regulation. For example, if the applicable CAA permit requirement involves “emission averaging” or other approaches that do not require each unit to have the emission controls, then no air emission control exemption is allowed under RCRA air regulations. *See, e.g.*, 61 Fed. Reg. 59,938-39 (1996); 62 Fed. Reg. 64,638-39 (1997). This is an important qualification and a frequent area of misapplication. Also, for tanks for which the air emission control includes an enclosure as opposed to a cover, the exemption under Subpart CC requires additional compliance with RCRA enclosure and control requirements. *See* 40 CFR §§ 264/265.1080(b)(7).

It is important to note that units exempt from Subpart CC under 40 CFR §§ 264/265.1080(b)(7) are still required to comply with Subpart CC recordkeeping requirements under 40 CFR § 264.1089(j) and 40 CFR § 265.1090(j), and in this respect are not fully exempt from the requirements of Subpart CC. Documentation of compliance with the applicable CAA standards must be kept with the facility operating record or readily available. Facilities should expect EPA and state inspectors to ask for and review this documentation.

### **Subpart BB Compliance Election**

Under Subpart BB, the owner or operator may *elect* to document compliance with an applicable CAA regulation codified under 40 CFR parts 60, 61, or 63. *See* 40 CFR §§ 264/265.1064(m). Facilities should maintain copies of all records documenting compliance with Subpart BB and anticipate that these documents may be reviewed as part of RCRA or CAA inspections. The owner or operator must demonstrate compliance with recordkeeping requirements of either 40 CFR §§ 264/265.1064 or pursuant to the relevant provisions of 40 CFR parts 60, 61, or 63.

### ***Facilities that are No Longer Major Sources Under the Clean Air Act***

On July 26, 2019, the EPA issued its *Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act* proposed rule, which follows a June 25, 2019 guidance memorandum and a February 8, 2018 Federal Register notice, all withdrawing the “once in, always in” policy under section 112. *See* 84 Fed. Reg. 36,304 (2019). A major source that takes an enforceable limit on its potential to emit hazardous air pollutants (HAPs) and takes measures to bring its HAP emissions below major source thresholds (*i.e.*, 10 tons per year (tpy) of any single HAP or 25 tpy of any combination of HAPs) becomes an area (minor) source. It is important to note that if a facility was previously exempt from RCRA air requirements through a CAA major source permit but then secures a CAA permit change to become an area source, the facility should evaluate whether any previously RCRA-exempt units would now be required to be covered under its RCRA permit. Facilities should work closely with their permitting authorities to ensure that all units subject to RCRA air regulations are covered by either their RCRA permit or by their CAA permit.

## **Benefits of the EPA’s Self-Disclosure Policies**

Regulated entities of any size who voluntarily discover, promptly disclose, expeditiously correct, and take steps to prevent recurrence of potential violations may be eligible for a reduction or elimination of any civil penalties that otherwise might apply. Most violations can be disclosed and processed via the EPA’s automated online “eDisclosure” system (see <https://www.epa.gov/compliance/epas-edisclosure>). To learn more about the EPA’s violation disclosure policies, including conditions for eligibility, please review the EPA’s Audit Policy at <https://www.epa.gov/compliance/epas-audit-policy> and New Owner Audit Policy at <https://www.epa.gov/compliance/epas-interim-approach-applying-audit-policy-new-owners>. Many states also offer incentives for self-policing. Please check with the appropriate state agency for more information.

For more information on the RCRA air regulations, please visit the RCRA Organic Air Emission Standards for TSDFs and Generators webpage at <https://www.epa.gov/hwpermitting/rcra-organic-air-emission-standards-tsdfs-and-generators> and the EPA’s NCI webpage at <https://www.epa.gov/enforcement/national-compliance-initiatives>.

## **Disclaimer**

This Enforcement Alert addresses select provisions of EPA regulatory requirements using plain language. Nothing in this Enforcement Alert is meant to replace or revise any EPA regulatory provisions or any other part of the Code of Federal Regulations, the Federal Register, or RCRA.