

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

In the Matter of:	)	
	)	
Stericycle, Inc.	)	FINDING OF VIOLATION
Warren, Ohio	)	
	)	EPA-5-25-OH-14
Proceedings Pursuant to	)	
the Clean Air Act,	)	
42 U.S.C. §§ 7401 et seq.	)	

FINDING OF VIOLATION

The U.S. Environmental Protection Agency finds that Stericycle, Inc. (Stericycle) is violating Clean Air Act (CAA) §§ 111(d) and 129, 42 U.S.C. §§ 7411 and 7429. Specifically, Stericycle is violating the Federal Plan Requirements for Hospital/Medical/Infectious Waste Incinerators at 40 C.F.R. Part 62, Subpart HHH as follows:

Regulatory Authority

1. Sections 111 and 129 of the CAA, 42 U.S.C. §§ 7411 and 7429, required EPA to promulgate revised Hospital, Medical, and Infectious Waste Incinerator (HMIWI) Emission Guidelines (EGs) and compliance schedules for the control of emissions from HMIWI units. EPA codified these revised regulations at 40 C.F.R. Part 60, subpart Ce.
2. Under the CAA § 129(b)(2) and revised guidelines at 40 C.F.R. Part 60, subpart Ce, States with subject sources must submit to EPA plans that implement the revised EGs. The plans must be at least as protective as the revised EGs.
3. Sections 111 and 129 of the CAA and 40 C.F.R §§ 60.27(c) and (d) require EPA to develop, implement, and enforce a Federal Plan to cover existing HMIWIs in States that do not have an approved plan.
4. 40 C.F.R. Part 62, subpart HHH (HMIWI Federal Plan) became effective on September 14, 2000.
5. The HMIWI Federal Plan affects existing HMIWIs for which construction commenced on or before December 1, 2008, or began modification of the HMIWI on or before April 6, 2010, and for which any of the following is true on the effective date of the Federal plan:
 - a. The State or Tribal plan has not become effective;
 - b. The State or Tribal plan was in effect but was subsequently vacated in whole or in part; or

- c. The State or Tribal plan was in effect but was subsequently revised such that it is no longer as protective as the emission guidelines.

6. Effective August 6, 2007, EPA approved a State plan submitted by the Ohio Environmental Protection Agency (OEPA) concerning criteria pollutant and toxic emissions from HMIWIs in the State.

7. Effective August 27, 2018, EPA approved OEPA's request for withdrawal of the previously approved HMIWI State plan. In the withdrawal request, OEPA certified that there was only one HMIWI unit operating in Ohio and requested that the HMIWI Federal Plan apply to the source.

8. 40 C.F.R. § 62.14490 of the HMIWI Federal Plan defines a "HMIWI" as any device that combusts any amount of hospital waste and/or medical/infectious waste.

9. 40 C.F.R. § 62.14490 of the HMIWI Federal Plan defines a "Large HMIWI" as either an HMIWI whose maximum design waste burning capacity is more than 500 pounds per hour, a continuous or intermittent HMIWI whose maximum charge rate is more than 500 pounds per hour, or a batch HMIWI whose maximum charge rate is more than 4,000 pounds per day.

10. 40 C.F.R. § 62.14411 and Table 1 of the HMIWI Federal Plan state that each owner of a large HMIWI shall comply with following emission limits: 25 milligrams per dry standard cubic meter (mg/dscm) particulate matter (PM), 11 parts per million by volume (ppmv) carbon monoxide (CO), 9.3 nanograms per dry standard cubic meter (ng/dscm) dioxins/furans, 6.6 ppmv hydrogen chloride (HCl), 9.0 ppmv sulfur dioxide (SO₂), 140 ppmv nitrogen oxides (NO_x), 0.036 mg/dscm lead (Pb), 0.0092 mg/dscm cadmium (Cd), and 0.018 mg/dscm for mercury (Hg).

11. 40 C.F.R. § 62.14453 of the HMIWI Federal Plan states that if an HMIWI is equipped with a dry scrubber followed by a fabric filter, a wet scrubber, a dry scrubber followed by a fabric filter and wet scrubber, or a selective non-catalytic reduction (SCNR) system, the owner or operator of the HMIWI must establish the appropriate maximum and minimum operating values indicated in Table 3 of this subpart for the relevant control system during the initial performance test.

12. 40 C.F.R. § 62.14490 of the HMIWI Federal Plan defines a "bypass stack" as a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

13. 40 C.F.R. §§ 62.14455(c), (d), and (e) of the HMIWI Federal Plan state, "Use of a bypass stack at any time during operation of an HMIWI is a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits." This applies to HMIWIs equipped with either a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber respectively.

14. 40 C.F.R. § 62.14490 of the HMIWI Federal Plan defines a "malfunction" as any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions. During periods of malfunction the operator must operate within established parameters as much as possible, and monitoring of all

applicable operating parameters must continue until all waste has been combusted or until the malfunction ceases, whichever comes first.

15. Effective June 12, 2013, EPA amended the HMIWI Federal Plan to eliminate an exemption during startup, shutdown, and malfunction (SSM) periods from the requirement to comply with the HMIWI Federal Plan's standards at all times. Federal Plan Requirements for Hospital/Medical/Infectious Waste Incinerators Constructed On or Before December 1, 2008, and Standards of Performance for new Stationary Sources: Hospital/Medical/Infectious Waste Incinerators, 78 Fed. Reg. 28052 (May 13, 2013).

16. Per the reporting requirements under 40 C.F.R. § 62.14463(a)(11), sources subject to the HMIWI Federal Plan must report any use of the bypass stack, duration of such use, reason for malfunction and corrective actions taken to the EPA Administrator or delegated enforcement authority.

Relevant Factual Background

17. Stericycle owns and operates a hospital, medical, and infectious waste treatment facility located at 1901 Pine Avenue SE, Warren, Ohio 44483 ("the Facility").

18. Under the Facility's Title V permit (Permit Number P0128242), issued by OEPA on December 7, 2020, the Facility operates one HMIWI unit identified as N001.

19. Per the Facility's Title V permit, N001 is a large, continuous feed, HMIWI installed in 1989.

20. Per the Facility's Title V permit, N001 is equipped with a venturi wet scrubber, selective non-catalytic reduction (SNCR) system, and two carbon beds.

21. Per the Facility's Title V permit, N001 is complying with the HMIWI Federal Plan.

22. On December 3, 2024, EPA issued an Information Request (Request) to Stericycle pursuant to Section 114 of the CAA, 42 U.S.C. § 7414. The request sought information related to bypass events that occurred at the Facility between January 1, 2020, and the date the Request was sent.

23. Stericycle submitted a response to the Request on December 13, 2024 (Response).

24. Stericycle's Response included a table of parameters and conditions, including Primary Evaporative Cooler (PEC) and condensing absorber outlet temperature thresholds, that would trigger a bypass at the Facility. The Response stated that these parameters are monitored and recorded digitally. The Response did not include the requested records of these parameters.

25. Stericycle's Response included a summary table of bypass events and quarterly reports previously submitted to OEPA since January 1, 2020. In the Response, Stericycle also stated that during bypass events the unit feed is automatically locked out and is not resumed until normal operations are reestablished.

26. Prior to the automatic feed lockout, N001 receives up to 1,534.3 pounds of waste per hour as a 3-hour rolling average. During bypass events, active charge in the primary chamber of N001 continues to burn and produce emissions.

27. The Facility reported the following bypass events:

- a. On February 5, 2020, the Facility experienced an event with a duration of ten (10) minutes during which the bypass stack for N001 was opened due to positive pressure in the chamber of N001. Positive pressure occurred during the unit shakedown period following maintenance activities. Stericycle noted that operators took immediate action to reduce pressure in the primary chamber. Stericycle also noted that the cause of the positive pressure was unknown and was an isolated event that has been resolved.
- b. On July 12, 2020, the Facility experienced an event with a duration of five (5) minutes during which the bypass stack for N001 was opened due to thermocouple failure in the PEC. Stericycle noted that the thermocouple was replaced following the failure.
- c. On July 13, 2020, the Facility experienced an event with a duration of one (1) minute during which the bypass stack for N001 was opened due to a thermocouple failure in the PEC. Stericycle noted that the thermocouple was replaced and the alloy to the thermocouple sheath was upgraded.
- d. On September 24, 2020, the Facility experienced an event with a duration of two (2) hours during which the bypass stack for N001 was opened due to a direct current power supply failure created by a short ground issue on a limit switch. Stericycle noted that the switch was replaced, and the power supply was inspected to ensure full charge.
- e. On October 11, 2020, the Facility experienced an event with a duration of thirty-five (35) minutes during which the bypass stack for N001 was opened due to a utility power failure. The generator was not able to pick up after it had started and stopped. Stericycle noted that the circuit breaker was reset once the utility power was restored.
- f. On September 13, 2021, the Facility experienced an event with a duration of five (5) minutes during which the bypass stack for N001 was opened due to a check valve failure which created a low flow on a pump. This created a high temperature in the PEC. Stericycle noted that the valves were repaired after the failure.
- g. On September 20-21, 2021, the Facility experienced an event with a duration of three (3) hours and eight (8) minutes during which the bypass stack for N001 was opened due to a wiring failure in the variable fan drive of the induced draft (ID) fan. Stericycle noted that the stack was opened manually to prevent significant

injury to employees and significant damage to the facility. Stericycle also noted that the wiring in the ID fan was repaired after the failure.

- h. On November 20, 2022, the Facility experienced an event with a duration of thirteen (13) minutes, during which the bypass stack for N001 was opened due to a power loss that tripped the main breaker. The generator was not able to pick up after it had started and stopped. Stericycle noted that the breaker was reset after the power was restored.
- i. On March 25, 2023, the Facility experienced an event with a duration of one (1) hour forty (40) minutes during which the bypass stack for N001 was opened due power loss coupled with a faulty check valve in the generator which prevented the generator from starting. Stericycle noted that the check valve was replaced with a springless valve.
- j. On October 23, 2023, the Facility experienced an event with a duration of five (5) minutes during which the bypass stack was opened due to a faulty bypass blowdown valve in the PEC loop. This lowered the water level in the tank, which resulted in a high temperature in the PEC. Stericycle noted that the faulty valve was replaced and tested to ensure correct operation after the failure.

Violations

28. By using the bypass stack in ten instances, cumulating in 8.03 hours of usage, Stericycle has violated emission limits for PM, dioxins/furan, HCl, Pb, Cd, and Hg per 40 C.F.R. § 62.14455(d).

Michael D. Harris
Division Director
Enforcement and Compliance Assurance Division