UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

In the Matter of:	)	
	)	
Stericycle, Inc.	)	**FINDING OF VIOLATION**
Clinton, Illinois	)	
	)	**EPA-5-*25-IL-3***
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 is violating Clean Air Act (CAA) §§ 111 and 129, 42 U.S.C. §§ 7411 and 7429. Specifically, Stericycle is violating Title 35 of the Illinois Administrative Code (35 IAC) § 229.125(c), which is part of a federally enforceable State plan approved by EPA, as follows:

Relevant Statutory and 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. Illinois submitted its revised HMIWI State Plan to EPA on November 8, 2011. The enforceable mechanism for this revised State plan is 35 IAC Part 229. The Federal effective date of the Illinois State Plan for existing HMIWIs was June 25, 2012. EPA approved Illinois's revised State plan and made the plan Federally enforceable on its effective date.

4. 35 IAC Part 229 is based on 40 C.F.R Part 60 subpart Ce and the revised New Source Performance Standards (NSPS), 40 C.F.R. Part 60 subpart Ec.

5. 35 IAC § 229.102 and 40 C.F.R. § 60.51c define "HMIWI" as any device that combusts any amount of hospital waste and/or medical/infectious waste.

6. 35 IAC § 229.102 and 40 C.F.R. § 60.51c define "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.

7. 35 IAC § 229.110(a) states, "[35 IAC Part 229] applies to all HMIWIs for which: 1) Construction commenced either on or before June 20, 1996, or modification was commenced either on or before March 16, 1998; or 2) Construction commenced either after June 20, 1996 but no later than December 1, 2008, or for which modification is commenced after March 16, 1998, but no later than April 6, 2010."

8. 40 C.F.R. §§ 60.32e(h) and 60.50c(h) state that physical or operational changes made to an existing HMIWI solely for the purpose of complying with emission guidelines under 40 C.F.R. Part 60 subpart Ce are not considered a modification and do not result in an existing HMIWI becoming subject to 40 C.F.R. Part 60 subpart Ec.

9. 35 IAC § 229.125(c) states 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 (SO_2), 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).

10. 35 IAC § 229.142 states that if an HMIWI is equipped with a dry scrubber followed by a fabric filter, a wet scrubber, or 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 Appendix B of 35 IAC Part 229 for the relevant control system during the initial performance test.

11. 35 IAC § 229.102 and 40 C.F.R. § 60.51c define "bypass stack" as an alternative stack used for discharging combustion gases to the atmosphere primarily to avoid severe damage to an air pollution control device or other equipment.

12. 35 IAC §§ 229.154(e), 229.156(f), and 229.158(e) 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.

13. 35 IAC § 229.102 and 40 C.F.R. § 60.51c define "malfunction" as any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or of 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.

14. 35 IAC Part 229 used to stipulate that operation periods during startup, shutdown, or malfunction were exempt from emission limits (35 IAC § 229.130), but that was repealed at 35 Ill. Reg. 16615, effective September 29, 2011.

Relevant Factual Background

15. Stericycle owns and operates a biohazardous medical waste disposal facility located at 5815 Weldon Springs Road, Clinton, Illinois 61727 ("the Facility").

16. Under the Facility's Clean Air Act Permit Program (CAAPP) Permit (99110103), issued by the Illinois Environmental Protection Agency (IEPA) on June 23, 2020, the Facility operates two HMIWI units identified as HMIWI #1 and HMIWI #2.

17. Per the Facility's CAAPP permit, HMIWI #1 and HMIWI #2 are both continuous HMIWI units with a maximum charge rate of 1,500 pounds per hour.

18. Per the Facility's CAAPP permit, HMIWI #1 and HMIWI #2 were constructed in 1988 and 1990, respectively, and equipped with additional controls in 2013. The air pollution control devices associated with both units are a SNCR, a quench tower/condensing absorber, a venturi scrubber/demister, and a carbon bed. The Facility had established the maximum and minimum operating values for the relevant control units indicated in Appendix B of 35 IAC Part 229 based on both HMIWIs being equipped with a wet scrubber and a SNCR system.

19. Per the Facility's CAAPP permit, HMIWI #1 and HMIWI #2 are complying with 35 IAC Part 229.

20. On July 23, 2024, EPA inspected the Facility as part of a CAA compliance evaluation. During the closing conference of the inspection, EPA requested that the Facility provide copies of the semi-annual reports previously submitted to the IEPA from the past five years.

21. The Facility has reported the following in its semi-annual reports:

a. On April 4, 2020, the Facility experienced an event with a duration of eight (8) minutes during which the bypass stack for HMIWI #1 was opened due to the quench temperature registering 300 °F, which immediately opened the bypass stack cap. The alarm system did not indicate that there was a quench temperature problem;

b. On January 4, 2021, the Facility experienced an event with a duration of five (5) minutes during which the bypass stack for HMIWI #1 was opened due to failure of a cooling tower pump;

c. On February 19, 2021, the Facility experienced an event with a duration of fifteen (15) minutes during which the bypass stack for HMIWI #1 was opened due to a scrubber shutdown that occurred while swapping strainer baskets to address high quench temperatures. Both strainer baskets ended up closed at the same time causing the scrubber to shutdown and the bypass stack to open;

d. On April 30, 2021, the Facility experienced an event with a duration of six (6) minutes during which the bypass stack for HMIWI #1 was opened due to a power outage. The cooling tower pump tripped which shutdown the scrubber;

e. July 22, 2021, the Facility experienced an event with a duration of five (5) minutes during which the bypass stack for HMIWI #1 was opened due to the backup quench pump cavitating when starting up causing the quench temperature to rise;

f. On September 5, 2021, the Facility experienced an event with a duration of two (2) hours during which the bypass stack for HMIWI #1 was opened due to the failure of a variable frequency drive (VFD) of an induced draft (ID) fan. This caused a loss of power and a draft through the scrubber system causing the bypass;

g. On October 5, 2021, the Facility experienced an event with a duration of thirteen (13) minutes during which the bypass stack for HMIWI #1 was opened due to belt failures on the quench pump. Maintenance could not swap to the backup pump in time;

h. On April 10, 2022, the Facility experienced an event with a duration of fifteen (15) minutes during which the bypass stack for HMIWI #1 was opened due to high quench temperatures caused by a quench belt failure; and

i. On February 19, 2023, the Facility experienced an event with a duration of fifteen (15) minutes during which the bypass stack for HMIWI # 1 was opened due to high quench temperatures caused by a quench belt failure.

Violations

22. By using the bypass stack in nine instances, cumulating in 3.4 hours of usage, Stericycle has violated emission limits for PM, dioxin/furan, HCl, Pb, Cd, and Hg per 35 IAC § 229.156(f).

MICHAEL HARRIS

Digitally signed by MICHAEL HARRIS
Date: 2024.12.17 12:06:32 -06'00'

Michael D. Harris
Division Director
Enforcement and Compliance Assurance Division