State of Utah

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Governor

GREG BELL
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

August 28, 2013

DAQC-610A-13
Site ID 10142 (B1)

Sent Via Certified Mail No. 70042510000375528179

Larry Reeves
Stericycle, Incorporated
90 North Foxboro Drive
North Salt Lake, Utah 84054

Dear Mr. Reeves:

Re: Amended Notice of Violation and Order to Comply - Utah Administrative Code (UAC) R307-415 and Conditions I.B, I.C.1, I.L.1.c, I.S.2.a, I.S.2.c, II.B.3.b, II.B.3.c(a), II.B.3.c.1.A(d) and II.B.3.c.3(a)(6) of Title V Operating Permit 1100055002 issued February 19, 2009 – Davis County

Please see the enclosed Amended Notice of Violation, which is based on the findings documented. This letter incorporates by reference the May 28, 2013, cover letter accompanying the original Notice of Violation. The Order is effective immediately. Compliance with the Order is mandatory and will not relieve the company of liability for any past violations. To request a formal administrative hearing, the procedures detailed in the paragraph entitled "Compliance, Opportunity for a Hearing" must be followed.

The Order requires Stericycle to submit written notification of its intent to comply, outlining how, and when compliance will be achieved to the Utah Division of Air Quality in writing on or before the 15th day after receipt of this Order. Questions regarding this matter may be directed to Harold Burge at (801) 536-4129.

When responding, refer to the DAQC number in the upper right corner of this letter.

Sincerely,

Bryce C. Bird
Director

BCB:HAB:bp

Enclosure: Amended Notice of Violation and Order to Comply

cc: Amanda Smith, Executive Director, Department of Environmental Quality
Davis County Health Department

The Utah Division of Air Quality

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In the Matter of	:	Amended Notice of Violation
Stericycle, Incorporated	:	and Order to Comply
	:	
	:	No. A2013051501

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This Amended Notice of Violation and Order to Comply is issued by the Director of the Utah Division of Air Quality (UDAQ) pursuant to the Utah Air Conservation Act (Act) Section 19-2-101, et seq., Utah Code Annotated 1953, as amended. The Director is authorized to issue Notices of Violation pursuant to Section 19-2-110, and to amend such Notices pursuant to Section 19-1-301(3)(b)(iv) of Utah Code Annotated and Rule 15 of the Utah Rules of Civil Procedure. The Board has delegated to the Director authority to issue Orders in accordance with Section 19-2-107(2)(a)(xiii) and 19-2-110(1) of the Utah Code Annotated.

Findings:

1. Stericycle, Incorporated (Stericycle) operates a hospital/medical/infectious waste incinerator (HMIWI) at 90 North Foxboro Drive, North Salt Lake, Davis County, Utah.

2. Stericycle is required to comply with Utah Administrative Code (UAC) R307-415 and the conditions of Title V Operating Permit 1100055002 issued February 19, 2009 (Operating Permit).

3. Operating Permit Condition I.B states, "Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit."

4. Operating Permit Condition I.C.1 states, "The permittee must comply with all conditions of the operating permit."

5. Operating Permit Condition I.L states that the, "[p]ermittee shall submit to the [Director] an annual compliance certification...no later than the date shown under 'Enforceable Dates and Timelines' at the front of this permit, and that date each year, and that date each year

following..." The Enforceable Date and Timelines section of the permit identifies the annual compliance certification date as May 2nd each calendar year.

6. Operating Permit Condition I.L.1.c states that the annual compliance certification shall include, "[t]he status of compliance with the terms and conditions of the permit for the period covered by the certification...The certification shall identify each deviation and take it into account in the compliance certification..."

7. Operating Permit Condition I.S.2.a states, "Monitoring reports shall be submitted to the [Director] every six months...All instances of deviation from permit requirements shall be clearly identified in the reports."

8. Operating Permit Condition I.S.2.c states that, "[t]he [Director] shall be notified promptly of any deviations from permit requirements...Prompt, as used in this condition, shall be defined as written notification within the number of days shown under "Enforceable Dates and Timelines" at the front of this permit..." The Enforceable Date and Timelines section of the permit defines "prompt" as "written notification within 7 days."

9. Operating Permit Condition II.B.3.b states, "At all times...the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions..."

10. Operating Permit Condition II.B.3.c(a) states, "The permittee shall not cause to be discharged into the atmosphere for the affected emission unit any gases that contain stack emissions in excess of the limits presented in Table 1." Table 1 of the permit limits total dioxins/furans (PCDD/PCDF) to 125 nanograms per dry standard cubic meter at 7% oxygen (ng/dscm @ 7% O_2)/55 grains per billion dry standard cubic feet at 7% oxygen (gr/billion dscf @ 7% O_2) or 2.3 ng/dscm @ 7% O_2 TEQ/1.0 gr/billion dscf @ 7% O2 TEQ. Table 1 of the permit limits hydrogen chloride (HCl) emissions to 100 parts per million by volume at 7% oxygen, dry basis (ppmdv @ 7% O_2). Table 1 of the permit also limits emissions of nitrogen oxides (NO_X) to 250 ppmdv @ 7% O_2.

11. Operating Permit Condition II.B.3.c.1.A.(c) states, "At least 30 days prior to conducting any emission testing, the permittee shall notify the [Director] of the date, time and place of such testing and submit a test protocol..."

12. Operating Permit Condition II.B.3.c.1.A.(d) states, "All tests shall be conducted while the source is operating at the maximum production or combustion rate at which the source will be operated. During the tests, the source shall burn fuels or combustion of fuel, use raw materials and maintain process conditions representative of normal operations..."

13. Operating Permit Condition II.B.3.c.3(a)(6) states that a semi-annual report shall be submitted by September 4, 2002, and subsequent reports shall be submitted no more than 6 months following the previous report. All reports shall be signed by the facility's manager and the reports shall include, if a performance test was conducted during the reporting period, the results of that test.

14. On February 1, 2012, DAQ received two deviation reports from Stericycle. One stating that the stack test results "appear to be in error" and another stating the failure to provide "30 days' notice for emission testing." Neither of these reports was submitted within seven days, as required. Stericycle did not state in either report that it had exceeded the PCDD/PCDF or NO_X emission limits.

15. On February 21, 2012, Stericycle submitted to DAQ a Data Validation Report prepared by Data/Analysis Technologies which claimed that the December 27-28, 2011, PCDD/PCDF test results should be invalidated, because the laboratory analyzed the samples without first performing a carbon/celite rinse. The report argued that if the rinse had been performed, the test results would have been in compliance with the PCDD/PCDF limit. The report did not include the entire stack test report.

16. On February 24, 2012, after a request by DAQ, the actual test report for the December 27-28, 2011, stack test was submitted to DAQ. A review of that report found that in addition to the excessive PCDD/PCDF emissions (616.4 ng/dscm @ 7% O_2), Stericycle had also exceeded the NO_X emission limit. The summary of test results in the report indicated that NO_X emissions measured during test Runs 1-3 (188.1 ppmdv @ 7% O_2) were within the limit, but a review of the raw data in the report showed that NO_X measured during Runs 1-3 (336 ppmdv @ 7% O_2) actually exceeded the emission limit and that Stericycle had performed three additional test runs (Runs 4-6, incorrectly listed in the test report as Runs 1-3) that were within the NO_X limit. The average of all 6 runs (262 ppmdv @ 7% O_2) was above the limit. During Run 4, NO_X emissions began to drop and

remained lower during Runs 5 and 6. No explanation for this drop in NO_X was included in the test report.

17. On March 12, 2012, Stericycle submitted a semi-annual monitoring report for the period covering July 18, 2011, through January 15, 2012. That report failed to include the results of testing performed on December 27-28, 2011. The report also failed to include deviations of the PCDD/PCDF and NO_X emission limits measured during the December 27-28, 2011, stack test and the seven-day deviation reporting requirement. Stericycle did not submit a deviation report for failure to include these deviations in this semi-annual monitoring report.

18. On March 23, 2012, DAQ issued a Compliance Advisory (CA) to Stericycle which listed the following potential deficiencies:

> An inspector from the DAQ reviewed a stack test report and additional related information for testing conducted on December 27-28, 2011, at the Stericycle medical waste incinerator on 90 North [Foxboro Drive], North Salt Lake Utah. The test report indicates that at the time of testing dioxin/furan (PCDD/PCDF) emissions averaged 616.4 ng/dscm @ 7% O_2 or 269.9 gr/billion dscf @ 7% O_2. The test report also indicated that average NO_X emissions were 188.1 ppmdv @ 7% O_2. The test report incorrectly stated that the NO_X results were the average of Runs 1-3. The reported NO_X emissions were an average of Runs 4-6, not Runs 1-3. The DAQ-calculated dioxin/furan (PCDD/PCDF) emission results were 616 ng/dscm @ 7% O_2 or 269 gr/billion dscf @ 7% O_2. The DAQ-calculated NO_X emission results for all six test runs averaged 262 ppmdv @ 7% O_2. These emissions are potential violations of Condition II.B.3.c(a) of Title V Operating Permit 1100055002 dated February 19, 2009.

19. On May 11, 2012, DAQ received a revised annual compliance certification for the period covering January 17, 2011, through January 16, 2012. The annual certification indicated continuous compliance with all permit conditions during the January 17, 2011, through January 16, 2012, period. Stericycle did not submit a deviation report for failing to include all instances of deviation in this annual compliance certification.

20. On June 28, 2012, DAQ received from Stericycle production data which included handwritten charge logs. These logs indicate that during the December 27-28, 2011,

stack test, Stericycle deliberately operated the incinerator in a manner unrepresentative of normal operating conditions during NO_X test Runs 4-6, in order to achieve NO_X emissions which were within the NO_X limit. These unrepresentative runs were the only test runs reported in the test report summary and were incorrectly labeled as test Runs 1-3. The charge logs show that once Runs 4-6 were complete, Stericycle immediately resumed normal operations, operations which were not consistent with good air pollution control practice for minimizing emissions as indicated in Stericycle's Incinerator Operator Training Manual. Stericycle did not submit a deviation report to DAQ for operating the incinerator during Runs 4-6 in a manner that was unrepresentative of normal operating conditions.

21. On August 18, 2012, DAQ received an email from the stack test contractor that included revised lab results obtained by re-running the original December 27-28, 2011, PCDD/PCDF samples with the carbon/celite rinse procedure and a revised test report using the revised lab results. The revised results confirmed the validity of the original PCDD/PCDF test result and refuted the claims made in the Data Validation Report. The December 27-28, 2011, PCDD/PCDF emission limit exceedance was verified.

22. On August 22, 2012, a representative of the Director (inspector) performed a compliance inspection of Stericycle. The findings of that inspection, as described in the Stericycle inspection memo dated October 31, 2012, are as follows:

    A. Stericycle was not operating in compliance with all of the conditions of Title V Operating Permit 1100055002 issued February 19, 2009.

    B. Stericycle had failed to comply with all conditions of Title V Operating Permit 1100055002 issued February 19, 2009.

    C. Stericycle failed to report in its annual compliance certification submitted on May 11, 2012, non-compliance with the PCDD/PCDF and NO_X limits during the December 27-28, 2011, stack test.

    D. Stericycle semi-annual monitoring reports failed to include all instances of deviation from permit requirements.

    E. Stericycle failed to submit deviation reports within 7 days for exceedance of the PCDD/PCDF and NO_X emission limits during the December 27-28, 2011, stack test

and for failure to submit a deviation report for not providing 30-day notice prior to performing the December 27-28, 2011, stack test.

F. Stericycle has not followed the procedures outlined in its Incinerator Operator Training Manual, resulting in exceedance of the PCDD/PCDF and NO_X emission limits during the December 2011 test. The manual indicates that more consistent charge rates and compositions are required for good air pollution control practice. Charge sheets indicate that Stericycle followed this practice during the three passing runs (Runs 4-6) of the December 2011 stack test for NO_X by maintaining very little variation in charge weights (179-185 pounds per charge). However, prior to and following stack testing Runs 4-6, Stericycle discontinued that air pollution control practice and has recorded charge rates that vary by more than 100 pounds per charge. Stericycle letters dated September 14, 2012, and September 21, 2012, indicate that incinerator NO_X emissions were once again found to be over the limit during in-house testing on September 13, 2012, and that Stericycle operators needed to reduce the charge rate to 1,550 pounds per hour, maintain the secondary combustion temperature at 1,950 degrees Fahrenheit (F), and the length of a normal stroke during feeding. Based on its representations to UDAQ in the September 14 and 21, 2012 letters, Stericycle exceeded the NOx limit every day between December 27, 2011 and September 14, 2012 that Stericycle operated the incinerator outside of the operating practices specified in their September 14 and 21, 2012 letters.

G. Stericycle has submitted a Notice of Intent (NOI) to install Selective Non-catalytic Reduction (SNCR) in an attempt to better comply with the NO_X emission limit and be able to run at a higher, more variable charge rates in order to keep up with its contractual obligations.

H. During the December 27-28, 2011, stack test, Stericycle reported to DAQ by telephone that they were seeing NO_X values in excess of the limit and requested guidance on conducting additional test runs. Following that phone conversation, three more NO_X test runs were performed (Runs 4-6). These last three runs were reported in the summary of test report as Runs 1-3, with no mention of the first three runs that measured a NO_X limit exceedance. After conducting in-house NO_X testing on September 13, 2012, Stericycle submitted a September 14, 2012, deviation report indicating that NO_X emissions were in excess of the limit during the September 13,

2012, NO_X test. A follow-up letter by Stericycle dated September 21, 2012, claimed that Stericycle has taken steps to minimize NO_X emissions (lowered charged rate, more uniform feed composition, better ash removal, better secondary chamber temperatures, and better charging) until it could install selective non-catalytic reduction equipment (SNCR). The December 27-28, 2011, PCDD/PCDF exceedance that Stericycle wanted invalidated, because a carbon/celite rinse had not been performed by the lab prior to sample analysis, had been validated by re-running the original samples with a carbon/celite rinse. The samples re-run with the carbon/celite rinse once again demonstrated the PCDD/PCDF exceedance, but the May 23, 2012, Compliance Advisory had yet to be resolved.

23. On September 6, 2012, Stericycle submitted to DAQ a semi-annual report for the period covering January 16, 2012, through July 17, 2012. That report did not include the results of PCDD/PCDF test performed on February 14-15, 2012. Stericycle did not submit a deviation report for failure to include the February 14-15, 2012, PCDD/PCDF test results in this semi-annual monitoring report.

24. On December 17, 2012, Stericycle and DAQ entered into a tolling agreement with respect to potential violations as set forth in the Compliance Advisory dated May 23, 2012, and the inspection memo dated October 31, 2012. The tolling period commenced on December 26, 2012, and ended March 26, 2013. On March 21, 2013, Stericycle and DAQ agreed to extend the tolling agreement until May 27, 2013.

25. On March 14, 2013, Stericycle submitted a semi-annual monitoring report to DAQ for the period beginning July 28, 2012, and ending January 15, 2013. The report does not include the results of stack testing performed on November 8, 2012. Stericycle did not submit a deviation report for failure to include the results of the November 8, 2012, stack test in this semi-annual monitoring report.

26. On January 22–25, 2013, Stericycle performed stack testing of the incinerator, immediately following installation of the SNCR, to demonstrate compliance with all emission limits.

27. On March 1, 2013, Stericycle submitted a deviation report to DAQ which indicates that during stack testing on January 22, 2013, HCl emissions averaged 143.4 ppmdv @ 7% O_2.

28. On March 21, 2013, Stericycle submitted to DAQ a report for the January 22-25, 2013, stack test which indicated that HCl emissions averaged 143.4 ppmdv @ 7% O2.

29. On April 25, 2013, Stericycle submitted to DAQ a report for an HCl retest performed on April 10, 2013. The results indicate that Stericycle, as of April 10, 2013, had returned to compliance with all emission limits.

30. Stericycle did not submit to DAQ a deviation report for failure to operate the plant in a manner consistent with good air pollution control practice for minimizing emissions by not following the procedures outlined in its Incinerator Operator Training Manual.

31. On May 21, 2013, by mail to Stericycle and by email to Stericycle's attorneys, DAQ served notice of its termination of the Tolling Agreement. That same day, Stericycle's attorney acknowledged receipt of the notice. According to Paragraph Six of the Tolling Agreement, upon Stericycle's receipt of notice of termination from DAQ, DAQ will have fourteen (14) business days to issue a notice of violation to Stericycle. Accordingly, DAQ has until June 11, 2013, to issue a notice of violation.

32. On May 28, 2013, DAQ issued the notice of violation.

Violation(s):

Based on the foregoing Findings, Stericycle is in violation of the following conditions of Title V Operating Permit 1100055002 dated February 19, 2009:

1. Condition I.B for operating out of compliance with the permit.

2. Condition I.C.1 for failure to comply with all conditions of the permit.

3. Condition I.L.1.c for failure to report in its annual compliance certification submitted on May 11, 2012, exceedances of the PCDD/PCDF and NO_X limits which occurred during the December 27-28, 2011, stack test and for failure to report deviations within 7 days.

4. Condition I.S.2.a for failure to clearly identify all instances of deviation in the semi-annual monitoring reports covering the periods of July 18, 2011, through January 15,

2012, January 16, 2012, through July 17, 2012, and July 18, 2012, through January 15, 2013.

5. Condition I.S.2.c for failure to submit deviation reports within 7 days for the December 27-28, 2011, PCDD/PCDF and NO_X emission limit exceedances, for failure to provide 30-day pretest notification prior to the December 27-28, 2011, stack test, for failure to perform December 27-28, 2011, NO_X test Runs 4-6 under representative operating conditions, for failure to identify all instances of deviation in monitoring reports covering the periods of July 18, 2011, through January 15, 2012, January 16, 2012, through July 17, 2012, and, July 18, 2012, through January 15, 2013, for failure to report instances of non-compliance in the annual compliance certification covering the period of January 17, 2011, through January 16, 2012, for failure to include the results of the February 14-15, 2012, stack test in the monitoring report covering the period of January 16, 2012, through July 17, 2012, for failure to report the results of the November 8, 2012, stack test in the monitoring report covering the period of July 18, 2012 through January 15, 2013, and for failure to operate the plant in a manner consistent with good air pollution control practice for minimizing emissions by not following the procedures outlined in its Incinerator Operator Training Manual.

6. Condition II.B.3.b for failure to operate the plant in a manner consistent with good air pollution control practice for minimizing emissions by not following the procedures outlined in its Incinerator Operator Training Manual.

7. Condition II.B.3.c(a) for exceedance of the PCDD/PCDF emission limits during the December 27-28, 2011, stack test.

8. Condition II.B.3.c(a) for exceedance of the NO_X emission limit from the December 27-28, 2011, stack test through on or about September 14, 2012.

9. Condition II.B.3.c(a) for exceedance of the NO_X emission limit during in-house testing on September 13, 2012, as reported in the Stericycle deviation report dated September, 14, 2012.

10. Condition II.B.3.c(a) for exceedance of the HCl emission limit during the January 22-25, 2013, stack test.

11. Condition II.B.3.c.1.A(d) for failure to maintain process conditions representative of normal operations during NO_X stack test Runs 4-6 of the December 27-28, 2011, stack test.

12. Condition II.B.3.c.3(a)(6) for failure to include the results of stack testing performed on December 27-28, 2011, in its semi-annual monitoring report to DAQ for the period beginning July 18, 2011, and ending January 15, 2012.

13. Condition II.B.3.c.3(a)(6) for failure to include the results of stack testing performed on February 14-15, 2012, in its semi-annual monitoring report to DAQ for the period beginning January 16, 2012, and ending July 17, 2012.

14. Condition II.B.3.c.3(a)(6) for failure to include the results of stack testing performed on November 8, 2012, in its semi-annual monitoring report to DAQ for the period beginning July 28, 2012, and ending January 15, 2013.

Order:

Based on the foregoing Findings and Violations, Stericycle, pursuant to Section 19-2-107(2)(a)(xiii) and 19-2-110(1) of the Utah Code Annotated, is hereby ordered to:

1. Immediately initiate all actions necessary to achieve total compliance with all applicable provisions of the Act.

2. Notify this office in writing on or before the 15th day after receipt of this letter, of Stericycle's intent to comply with this Order and indicate how compliance is to be achieved.

Compliance, Opportunity for a Hearing:

This Order is effective immediately and shall become final unless Stericycle requests, in writing, a hearing within thirty (30) days after receipt of this Notice pursuant to Utah Code Annotated 19-1-301 and Utah Admin. Code R305-7, Part 3. Section 19-2-115 of the Utah Code Annotated provides that violators of the Utah Air Conservation Act and/or any Order issued thereunder may be subject to a civil penalty of up to $10,000.00 per day for each violation.

Dated _____ day of _____, 2013.

Bryce C. Bird, Director
Utah Division of Air Quality