

**Waldron, Sherry**

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**From:** Waldron, Sherry  
**Sent:** Tuesday, March 5, 2019 2:30 PM  
**To:** 'lhartman@sterigenics.com'  
**Subject:** Semiannual Subpart O and deviation report, Sterigenics, Atlanta, Georgia

The Division has reviewed the above referenced reports, received on February 5, 2019. The report met the reporting requirements of Georgia Air Permit No. 7389-067-0093-S-05-0, as amended, and 40 CFR 63 Subpart O. No deviations were reported.

Thank you for your timely and complete submittal.

Sherry Waldron  
Environmental Engineer  
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January 29, 2019

Georgia Department of Natural Resources  
Environmental Protection Division  
Stationary Source Compliance Program  
Air Protection Branch  
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4244 International Parkway  
Atlanta, Georgia 30354-3908

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Air Protection  
Branch

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Attention: Ms. Karen Hays, Unit Manager

Subject: Semiannual Synthetic Minor Deviation Report for Sterigenics, U.S., LLC, Atlanta, Georgia Facility Operating **Permit No. 7389-0670093-S-05-0** for the period of July 01, 2018 to December 31, 2018

This letter provides information for the semi-annual Synthetic Minor Permit Deviation Report for Sterigenics, US LLC Atlanta, Georgia facility covering the period from July 1, 2018 through December 31, 2018. This report is intended to satisfy the monitoring and reporting requirements of Condition 5.4, 7.4 and 7.7 in operating permit number 7389-067-0093-S-05-0. For ease of reference, this report is organized by permit condition.

#### Semiannual Deviation Reporting Requirements

Condition 5.4 requires:

The Permittee shall maintain and operate the AAT Scrubber System (EC2) to ensure a maximum emission level of 1 ppmv or a reduction of 99% for aeration room vents (AR-1) and a reduction efficiency of 99% for sterilization chamber vents (SEV-1, SEV-2, SEV-3, SEV-4, SEV-5, SEV-6, SEV-7 SEV-8, SEV-10, SEV-11):

a. Aeration room vents: AR-1 – Once per month the Permittee shall simultaneously collect and record the concentration of a 15-minute ethylene oxide bag sample from both the inlet and outlet of the dry bed absorbers:	
i. If the facility is complying with the 1ppmvd standard, as specified in condition No. 2.4, and the concentration of ethylene oxide in the outlet sample of the dry bed absorbers increases to 0.9 ppmv or greater, the Permittee shall replace the dry bed material within 30 days, prior to the next scheduled aeration room exhaust sampling event.	Dry Bed outlet concentration did not exceed 0.9 ppm during this reporting period.
ii. If the facility is complying with the 99% reduction efficiency standard, as specified in Condition No. 2.4, and the AAT Scrubber System reduction efficiency decreases to 99.1% or less, the Permittee shall replace the dry bed material within 30 days prior to the next scheduled aeration exhaust sampling event. The AAT Scrubber System reduction efficiency shall be calculated by comparing the ethylene oxide loading into the AAT Scrubber System to the ethylene oxide mass exiting the dry bed absorbers.	N/A
b. Aeration room vents (AR-1) and sterilization chamber vents (SEV-1	N/A

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through SEV-9, and SEV-10 through SEV-11) – any instance when sterilization chamber exhausts and aeration room exhausts are simultaneously vented through the AAT Scrubber System, the Permittee shall comply with the 99% reduction efficiency standard. During any such event, the Permittee shall collect and record the concentration of a 15-minute ethylene oxide bag sample from the outlet of the dry bed adsorbers within 96 hours of changeover. The AAT Scrubber System reduction efficiency shall be calculated by comparing the ethylene oxide loading into the AAT Scrubber System to the ethylene oxide mass exiting the dry bed adsorbers. If the reduction efficiency of the AAT Scrubber System is less than 99.1%, the Permittee shall not route any sterilization replaced. Bag testing shall continue at a sampling frequency of once per week during the changeover of the sterilization chamber vents from the Ceilcote Scrubber (EC3) to the AAT Scrubber System.	
c. When the Permittee is sampling in accordance with Condition Number 5.3a or 5.3b, the ethylene oxide loading to the AAT Scrubber System, the ethylene oxide mass out of the AAT dry adsorbers and the AAT Scrubber System reduction efficiency shall be recorded for each sampling event. These records shall be kept in a form suitable for inspection or submission to the Division. Methods of calculation for these measurements shall be submitted in the site-specific monitoring plan.	N/A
d. The dates of dry bed material placement shall be recorded and kept in a form suitable for inspection or submission to the Division.	Records are maintained. Dry bed material replaced on Dec 3, 2018

### Reporting Requirements

Condition 7.4 For each monthly sampling event conducted in accordance with conditions 5.4.a.i and 5.4.b, the Permittee shall include the following information in the semi-annual report required by Condition 7.8.

a. For AAT Scrubber (EC2), any occurrence when analysis of the dry bed adsorber outlet sample concentration exceeded 1 ppmv.	None
b. For the AAT Scrubber System (EC2), any occurrence when the AAT Scrubber reduction efficiency indicates that the efficiency is less than 99%.	N/A
c. For the acid-water scrubbers (AAT Scrubber System EC2 and Ceilcote Scrubber EC3), any occurrence when the ethylene glycol concentration in the acid-water scrubber liquor is in excess of the maximum ethylene glycol concentration established during initial performance testing.	N/A
d. For the acid-water scrubbers (AAT Scrubber System EC2 and Ceilcote Scrubber EC3), any occurrence when the liquor recirculation tank level of the acid-water scrubber is in excess of the maximum liquor tank level established during initial performance testing.	None
e. For the acid-water scrubbers (AAT Scrubber System EC2 and Ceilcote Scrubber EC3), any occurrence when the scrubbing liquor pH rises above	None

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the manufacturers recommended level of 2.	
f. For the AAT Scrubber System (EC2) list any occurrence when analysis of the dry bed adsorber outlet sample indicates the concentration exceeds 0.9 ppmv, but is less than or equal to 1 ppmv.	None
g. For the AAT Scrubber System (EC2), list any occurrence when AAT Scrubber System reduction efficiency indicates the efficiency is less than 99.1%, but is greater than or equal to 99%.	N/A
h. For the AAT Scrubber System, (EC2), list any instance when the AAT Scrubber System breaches a dry bed adsorber material replacement threshold, but the dry bed material is not replace within 30 days.	N/A

**Condition 7.7 requires:**

The Permittee shall submit a written report containing any excess emissions, exceedances, and/or excursions as described in this permit and any monitor malfunctions for each semiannual period ending January 1 and June 30 of each year. All reports shall be postmarked by the 30<sup>th</sup> day following the end of each reporting period, July 30 and January 30, respectively. In the event that there have not been any excess emissions, exceedances, excursions or malfunctions during a reporting period, the report should so state. Otherwise, the contents of each report shall be as specified by the Division's Procedures for Testing and Monitoring sources of Air Pollutants and shall contain the following: [391-3-1-.02(6)(b) 1 and 40 CFR 63.10 (e)]

- a. A Summary report of excess emissions, exceedances and excursions, and monitor downtime, deviations and monitor downtime in accordance with Section 1.5 (c) and (d) of the above referenced document, including any failure to follow required work practice procedures.

**There were no recordkeeping/ procedural deviations or excess emissions or excursions associated with section 7.7.**

- b. Total process operating time during each reporting period. Total processing time was:

**4,408 hours**

- c. The magnitude of all excess emissions, exceedances and excursions computed in accordance with the applicable definitions as determined by the Director, and any conversion factors used, and the date and time of the commencement and completion of each time period of such occurrence.

**There were no deviations during the period.**

- d. Specific identification of each period of such excess emissions, exceedances, and excursions that occur during startups, shutdowns, or malfunctions of the affected facility. Include the nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

**There were no deviations during the period.**

- e. The date and time identifying each period during which any required monitoring system or device was inoperative (including periods of malfunction) except for zero and span checks, and

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the nature of the repairs, adjustments, or replacement. When the monitoring system or device has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

**There were no breakdowns of the monitoring system or devices during the reporting period.**

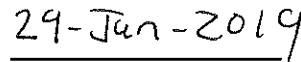
- f. Certification by a Responsible Official, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

***Required Statement***

Sterigenics U.S. LLC has reviewed all applicable provisions of the Atlanta Synthetic Minor operating permit. There have not been deviations from applicable limitations or standards or monitor malfunctions during the reporting period from July 01, 2018 through December 31, 2018.



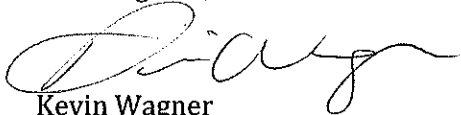
Kathleen Hoffman  
Senior VP, EH&S and Tech Services



Date

If you have any questions regarding this submittal, please call Laura Hartman at (630) 928-1724.

Kind Regards,



Kevin Wagner  
Director  
Environment, Health and Safety

cc: Air and EPCRA Enforcement Branch, U.S. EPA Region 4  
61 Forsyth Street  
Atlanta, Georgia 30303

Daryl Mosby – Atlanta General Manager  
Juan Segovia – VP of Operations