



**Compliance Monitoring Report**

**1. General Information**

Date of Inspection: January 11, 2018  
Date of Report Completed: January 12, 2018  
Compliance Monitoring Category: Unannounced Inspection  
Inspector Name: Sherry Waldron *SW*  
Reviewing Manager: Mike Odom *MO*

**2. Facility Information**

Facility Name: Sterilization Services of Georgia  
Facility AIRS No.: 121-00010  
Facility Location: 6005 Boatrock Boulevard  
Atlanta, Georgia 30336 (Fulton County)  
Facility Mailing Address: Same as above  
Facility Contact: Eric Welch, Plant Manager  
404-344-8423  
CMS Designation: Synthetic Minor Source

**Air Quality Permit No. 3841-121-0010-S-02-0** **Effective Date: July 24, 2006**

Issued for operation of an ethylene oxide sterilization facility.

**Air Quality Permit No. 3841-121-0010-S-02-1** **Effective Date: June 25, 2014**

Issued for Addition of one 15 pallet Ethylene Oxide gas sterilization chamber (Source Codes CH4); addition of two enclosed outgassing rooms with exhaust (Source Codes AR3 and AR4); addition of Scrubber (APCD ID No. 2SC).

*Permit(s) can be accessed at [epd.georgia.gov/air](http://epd.georgia.gov/air)*

**3. Inspection Summary / Recommended Actions:**

The facility appeared to be operating in compliance with Air Quality Permit No. 3841-121-0010-S-02-0, as amended, at the time of the inspection.

**4. Previous Enforcement Actions and Inspections:**

The most recent previous inspection was conducted on February 18, 2016. There have been no enforcement actions at this facility during the previous five years. See attached Full Compliance Evaluation (FCE) Report for details.

**5. Complaint Investigations since last Full Compliance Evaluation:**

There have been no complaints received for this facility.

**6. Applicable Requirements, Description of Regulated Emission Units, and Inspection Determinations:**

Emission Units		Corresponding Permit Conditions	Air Pollution Control Devices		Inspection	
ID No.	Description		ID No.	Description	Evaluated During Inspection?	Inspection Determination
SC1-SC4	Sterilization Chambers 1-4	1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.4, 2.5, 3.1, 4.1, 4.2, 4.3, 5.1, 5.4, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7.1, 7.2, 7.3, 7.4, 7.7, 7.8	APCD ID No. 1SC – Scrubber APCD ID No. 2SC - Scrubber		Yes	In compliance
AC1-AC4	Aeration Chamber	1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.3, 2.4, 2.5, 3.1, 4.1, 4.2, 4.3, 5.1, 5.2, 5.3, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8	APCD ID No. 1OX Catalytic Oxidizer		Yes	In compliance

### Updated Equipment List

Source Code	Description	Control Device	Description	Stack Code
CH1	13 Pallet Ethylene Oxide Gas Sterilization Chamber	---	---	EP1
CH2	8 Pallet Ethylene Oxide Gas Sterilization Chamber	---	---	EP2
CH3	13 Pallet Ethylene Oxide Gas Sterilization Chamber	---	---	EP3
CH1-CH3	---	1SC	Scrubber	EP4
AR1	Enclosed Outgassing Room with Exhaust	---	---	---
AR2	Enclosed Outgassing Room with Exhaust	---	---	---
AR3*	Enclosed Outgassing Room with Exhaust	---	---	---
AR4*	Enclosed Outgassing Room with Exhaust	---	---	---
AR1-AR4	---	1OX	Thermal Oxidizer	EP5
CH4*	15 Pallet Ethylene Oxide Gas Sterilization Chamber	---	---	EP6
CH4	---	2SC*	Scrubber	EP8

\* Amendment for Permit No. 3841-121-0010-S-02-1, Effective Date: June 25, 2014

Only 3 sterilization chambers are in service at this time.

#### 7. Compliance Monitoring Activities – Details not included in table above:

- a. Describe any deviation from compliance noted during the inspection listed on Table 6: Rolling 12-month totals of ethylene oxide usage are not maintained, but monthly usage information is. Totals are well below limits, however. This will be noted in acknowledging the inspection.
- b. Describe any compliance assistance provided during inspection: None.
- c. Describe any action taken by the facility to come back into compliance during the inspection: None.
- d. Deviations noted during the inspection, not previously listed. Include equipment ID or equipment description and condition number: See above.

#### 8. Additional Permit Requirements:

- a. Periodic Reports:  
Submitted as required. See attached Full Compliance Evaluation (FCE) Report for details.
- b. Permit Fees:  
Paid as required. See attached Full Compliance Evaluation (FCE) Report for details.
- c. Permit Renewal and Expiration:  
Not Applicable.
- d. For any overall emission/production/usage limit:

Table 8.d.		
Permit Condition	Permit Limit	Actual
2.2	Reduce ethylene oxide emissions from each sterilization chamber by at least 99%	Last tested in 2006. See attached performance test summary.
2.3	Reduce ethylene oxide emissions from each aeration chamber to 1ppmv or by at least 99% whichever is less stringent.	Last tested in 2006. See attached performance test summary.
2.5, 7.8	Limit use of ethylene oxide to no more than 168 tons during any 12 month period. Calculate and maintain total monthly and twelve month rolling total of ethylene oxide usage. Notify EPD if 12-month usage during any month exceeds 168 tons by 15 <sup>th</sup> day of month.	Monthly usage records for 2017 are attached, all showing compliance. The total shows 86,611 pounds, or about 43 tons, of ethylene oxide usage for 2017.
3.1	Minimize fugitive emissions.	No emissions were observed, and are unlikely at this facility.

9. **Attachments:**

- a. Inspection Observations:  
See attachment
- b. Performance Tests:  
See attachment
- c. Full Compliance Evaluation (FCE) Report:  
See attachment

# Attachment: Inspection Observations

Source Code	Equipment Description & Emissions	Control Equipment & Requirements	Observations	Records
ID No. 1SC	Sterilization Chambers 1 through 4 – Ethylene Oxide	<p>Scrubbers</p> <ul style="list-style-type: none"> <li>• Measure and record scrubber liquor level in the recirculation tanks weekly using liquid level indicator.</li> <li>• Maintain scrubber liquor recirculation tank levels below 9200 gallons.</li> </ul>	At the time of the inspection, the tank measurements indicated the levels were 8,582 gallons. The facility determines this daily. A copy of an example of the daily checklist is attached.	Previously: Scrubber levels recorded daily. No deviations reported.
ID No. 1OX	Aeration Chambers 1 through 4 – Ethylene Oxide	<p>Catalytic Oxidizer – EO</p> <ul style="list-style-type: none"> <li>• Compute and record daily oxidation temperature using 15-minute temperature values.</li> <li>• Temperature monitor to be accurate within <math>\pm 10^{\circ}\text{F}</math>.</li> <li>• Verify accuracy of temperature monitor <b>twice annually</b> using reference thermometer to NIST.</li> <li>• 24-hour oxidation temperature below tested levels or <math>269^{\circ}\text{F}</math>.</li> </ul>	The facility complies with this requirement. The facility's last calibration record dated December 6, 2017, is attached. The accuracy determination indicates the specification for accuracy maintained by the facility is $\pm 2^{\circ}\text{F}$ , as shown on the last record. The temperature at the time of the inspection was $251^{\circ}\text{F}$ .	No deviations reported.

**Note:**

Sterilization Chamber CH4, Aeration Chambers AR3 and AR4, and Scrubber No. 2SC have not been installed.

Permit Conditions		Inspection
<b>Process Requirement</b>		
4.1	Maintain records of routine maintenance.	Sample inspection checklists, including maintenance activities, were reviewed. Daily, weekly, monthly, semiannual and annual activities are covered.

Permit Conditions		Inspection
4.2	Maintain inventory of spare parts.	Although the facility does not maintain a formal list or database for this, the facility was able to demonstrate that spare parts are maintained. For instance, a spare thermocouple was demonstrated to be on site.
4.3	Conduct annual compliance test, or Change out catalyst every 5 years.	Catalyst was changed on February 27, 2016 according to a notification received on February 29, 2016.
5.1	All continuous monitors must be in continuous operation except for breakdowns and repairs.	No monitoring downtime reported.
5.2, 5.3, 7.5	<b>Continuously</b> monitor and record temperature at the outlet of the catalyst bed. Temperature must be accurate to within $\pm 10^{\circ}\text{F}$ . Verify accuracy of temperature monitor <b>twice annually</b> .	The facility maintains a strip as well as a chart recorder that is checked daily to ensure that they are working. The most recent calibration record is attached.
5.4	Measure and record scrubber liquor level for Scrubbers 1SC and 2SC <b>weekly</b> .	Scrubber 2SC has not been installed yet. The facility maintains these records daily for Scrubber 1SC.
Record Keeping		
7.1	Maintain records of start-up, shutdown or malfunctions of air pollution control equipment; periods when CMS or monitoring device is inoperative.	All records requested were available. No downtime reported for monitoring devices, which only includes the thermocouple. Scrubber liquor levels are obtained through manual means.

Permit Conditions		Inspection
7.2	Report malfunctions or breakdowns that result in increased emissions of more than 4 hours within 7 days.	Mr. Welch verified no malfunctions or breakdowns have occurred. Alarms shut down the process if there is a problem with the control devices.
7.4	Submit semi-annual reports, including any deviation of operating parameters: 1. Scrubber liquor level for each scrubber (1SC and 2SC) that is above 9200 gallons. 2. 24 hour oxidation temperature below 240°F.	Semi-annual reports submitted as required. No deviations reported.

Dawn Wu of the Stationary Source Permitting Program accompanied me during the inspection. Mr. Eric Welch, Plant Manager, accompanied us on the inspection, as well as the Production Manager, Mr. James Boland. Stacey Rakestraw, QA Supervisor, also assisted us with records.

The facility operates 24 hours a day, 7 days a week. The facility is actively constructing the operations to add the units permitted in the last permit amendment. All operations showed compliance. All records were available for review. Usage records were obtained, but these were only monthly usage records for the ethylene oxide. No 12-month rolling totals were available. These calculations will be requested to be instituted when acknowledging the inspection.

## Attachment: Performance Tests

Source Tested	Pollutant	Date of Test	Required Testing Frequency	Limit	Actual	Percent of Allowable
ID No. 10X	EO	N/A	Annually ---OR--- Replace catalyst every 5 years.	Removal efficiency of 99%. If removal efficiency is less than 99%, replace with new catalyst within 180 days ---OR--- Replace catalyst every 5 years.	Catalyst was changed on February 27, 2016 according to a notification received on February 29, 2016.	N/A
ID No. 1SC and 2SC	EO		Once to establish liquid level	Tested liquid level – Minimum 9200 gallons	Established during previous testing in 2001.	N/A



COPY

Sterilization Services of Georgia  
SEMI-ANNUAL OXIDIZER MAINTENANCE INSPECTION AND CALIBRATION

OXIDIZER THERMOCOUPLE CHECK: ACCEPTANCE CRITERIA +/- 2° F

Beta serial # 1678089 Beta calibration due date 10-30-18

Oxidizer recorder	As Found (Beta attached to TC)	Deviation	*As Left
245.2 °F	245.1 °F	+ .1 °F	245.2 °F
n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a

HONEYWELL OXIDIZER INSTRUMENTATION CALIBRATION:  
ACCEPTANCE CRITERIA +/- 2° F

Beta serial # 1678089 Beta calibration due date 10-30-18

Test temperature	200°F	250°F	300°F
Honeywell recorder as found reading	199.7 °F	249.8 °F	299.8 °F
Beta reading	200.0 °F	250.0 °F	300.0 °F
Deviation	- .3 °F	- .2 °F	- .2 °F
*As left reading	199.7 °F	249.8 °F	299.8 °F

YOKOGAWA INSTRUMENTATION CALIBRATION:  
ACCEPTANCE CRITERIA +/- 2° F

Beta serial # 1678089 Beta calibration due date 10-30-18

Test temperature	200°F	250°F	300°F
Yokogawa as found reading	200.3 °F	250.2 °F	300.4 °F
Beta reading	200.0 °F	250.0 °F	300.0 °F
Deviation	+ .3 °F	+ .2 °F	+ .4 °F
*As left reading	200.3 °F	250.2 °F	300.4 °F

\*If as found reading is within the acceptance criteria the as left reading is not required. As left reading is required when there is an adjustment.

Abnormal Operations: n/a

Performed by: James J. [Signature]

Plant Manager: Eric Welch Date: 12-6-17

Quality Assurance: Stacy R. Date: 12-6-17

# COPY

## Sterilization Services of Georgia Daily Inspection Compliance Level Checks

### LIQUID SCRUBBER INSPECTION

Scrubber pH: 0.7 (Should be less than 1.0, if greater than 1.0 add sulfuric acid and notify Plant Manager)

Control panel lamp test performed.  Yes  No

If any bulbs are out, replace bulbs. Are all alarm lights working properly?  Yes  No  N/A

Control panel alarm conditions (list alarms and actions taken for each):

NA

### COMPLIANCE LEVEL CHECKS

Flow Rate (70 ± 5 gpm) from Chemrox control panel	Tower Temp. (60-80 °F)	Storage Temp. (60-75 °F)	Storage Tank Level	Reactor Tank #1 Level	Reactor Tank #2 Level	MOV (9,200) Alert Level 8,500 Action Level 8,900
			Inches	Inches	Inches	
<u>71.1</u>	<u>60</u>	<u>60</u>	<u>95</u>	<u>118</u>	<u>24</u>	<u>NA</u>
			Gallons	Gallons	Gallons	
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>4433</u>	<u>3343</u>	<u>680</u>	<u>8456</u>

Scrubber recharge necessary (completed recharge form to be attached)  Yes  No

If yes, Plant Manager and QA/RA Manager must be notified. Date notified: 2/3/17 Initials: CAO

### OXIDIZER INSPECTION

The oxidizer may be turned on or off, depending on production needs.

Has the oxidizer been turned off since the last daily inspection?  Yes  No

For the periods of time that the oxidizer is turned on: is the temperature above 240°F?  Yes  No

Is there sufficient paper on both recorders?  Yes  No

Abnormal conditions: NA

Inspected by: [Signature] Date: 2/3/17

Plant Manager: Eric Welch Date: 2-9-17

QA Review: Stacy Kuchta Date: 2-9-17

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
EO	4045	7840	7888	7193	7819	7626	7087	7253	6669	6660	8309	8222
SSG												

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
N2	266	280	287.5	223.4	271.6	228	255	283	312	272	289	303
SSG												

COPY

<b>Totals</b>			
86611	pounds		

<b>Totals</b>			
3270.5	inches		

COPY



# GEORGIA

DEPARTMENT OF NATURAL RESOURCES

## ENVIRONMENTAL PROTECTION DIVISION

**Richard E. Dunn, Director**

### Air Protection Branch

4244 International Parkway, Suite 120  
Atlanta, Georgia 30354  
404-363-7000

### Full Compliance Evaluation Report

## Sterilization Services of Georgia, Atlanta

**121-00010**

Facility description: Ethylene-Oxide Sterilizer

6005 Boat Rock Blvd SW  
Atlanta, GA 30336

Fulton County  
Lat: 33.725, Long: -84.583

Operating status: Operational  
Classification: Synthetic minor  
CMS status: SM  
SIC code: 3841  
NAICS code:  
Air Programs: SIP, MACT  
Classifications: None

### Full Compliance Evaluation

FCE Year: 2018

FCE tracking number: 9216

Reviewed by: Waldron, Sherry

Date completed: 16-Jan-2018

On-site inspection conducted

Comments: N/A

Supporting compliance data for January 16, 2017 through January 16, 2018

### Inspections

Tracking #	Date	Inspector	Reason for inspection	Operating	Compliance status
71251	11-Jan-2018	Waldron, Sherry	Planned Unannounced	Yes	Compliant

### RMP Inspections

None

### Annual Compliance Certifications

None

### Reports

Tracking #	Report period	Date received	Reviewer	Deviations reported
------------	---------------	---------------	----------	---------------------

69348	First Semiannual 1-Jan-2017 – 30-Jun-2017	12-Jul-2017	Waldron, Sherry	No
65918	Second Semiannual 1-Jul-2016 – 31-Dec-2016	18-Jan-2017	Holder, Don	No

*Comments:* In compliance.

**Notifications**

---

None

**Source Tests**

---

None

**Fees Data**

---

<u>Fee year</u>	<u>Invoiced amount</u>	<u>Amount paid</u>	<u>Balance</u>	<u>Status</u>
2013	\$1,700.00	\$1,700.00	\$0	Paid in Full
2015	\$1,700.00	\$1,700.00	\$0	Paid in Full
2017				Added to the Annual Fee System
2014	\$1,700.00	\$1,700.00	\$0	Paid in Full
2016	\$1,700.00	\$1,700.00	\$0	Paid in Full

**Five-Year History of Enforcement Actions**

---

None