



**Richard E. Dunn, Director**

**Air Protection Branch**  
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**MEMORANDUM**

**TO:** William Fleming  
**THROUGH:** Daniel McCain  
**FROM:** Marie Miller  
**SUBJECT:** SOURCE TEST REPORT REVIEW

The following test has been reviewed and was conducted in an acceptable fashion for the purpose intended.

<b>COMPANY NAME</b>	Sterigenics U.S. LLC
<b>COMPANY ADDRESS</b>	Atlanta, GA
<b>SOURCE TESTED</b>	Aeration Vent Testing
<b>POLLUTANT DETERMINED</b>	Ethylene Oxide
<b>REPORT REVIEWED BY</b>	Marie Miller
<b>TEST WITNESSED BY</b>	Joshua Pittman, Marie Miller
<b>DATE(S) OF TEST</b>	June 30, 2022
<b>DATE RECEIVED BY APB</b>	August 29, 2022
<b>APPLICABLE REQUIREMENT</b>	Permit No. 7389-067-0093-S-06-0 Condition 2.7

<b>MEMORANDUM</b>	<p>Per Permit No. 7389-067-0093-S-06-0 Condition 2.7 the Permittee shall reduce ethylene oxide emissions to the atmosphere from the Aeration Vent (Source Code: AR-1) to a maximum concentration of 1 part per million, volume basis (ppmv), or by at least 99%, whichever is less stringent.</p> <p>The reduction efficiency of the AAT Scrubber System with Dry Bed Adsorbers (EC2), which controls the emissions from the Aeration Vent (AR-1), was determined in accordance with EPA ALT-142 and the following equation: <math>RE_{Ar} = [ ( E_{a/bv} + E_{oc} ) - E_{ps} ] / ( E_{a/bv} + E_{oc} )</math>. Some measurements were below the minimum detectable concentration (MDC#2). For those data points, the MDC was used in the calculations.</p> <p>Average EtO Concentration at the Process Stack = &lt; 0.01286 ppmv                  Average EtO Emissions at the Aeration/Backvent Outlet (<math>E_{a/bv}</math>) = 1.976 lb/hr                  Average EtO Emissions at the Ceilcote Outlet (<math>E_{oc}</math>) = 8.29E-3 lb/hr                  Average EtO Emissions at the Process Stack (<math>E_{ps}</math>) = &lt; 8.60E-4 lb/hr                  Average EtO Control Efficiency (<math>RE_{Ar}</math>) = 99.96%</p>
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cc: William Fleming  
 AIRS Number: 067-00093

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