777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY
MANAGEMENT DISTRICT

PERMIT TO OPERATE

ISSUED TO: **THE JACKSON LABORATORY**

EQUIPMENT LOCATION: **1650 SANTA ANA AVE., SACRAMENTO, CA**

PERMIT NO.	EQUIPMENT DESCRIPTION
24569	ETHYLENE OXIDE STERILIZER MAKE: 3M STERI-VAC STERILIZER/AERATOR MODEL: 8XL S/N 450136
24570	CONTROL DEVICE FOR P/O 24569 MAKE: 3M EO ABATOR MODEL: 50AN S/N 300297

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. The permit holder agrees to indemnify and defend SMAQMD, its officers, agents, and employees if this permit or CEQA or NEPA is challenged in state or federal court. This indemnification includes attorney fees awarded against SMAQMD, as well as attorney fees, court costs, legal fees, and other expenses incurred in defending the challenge. The District will provide written notice to the permit holder within 5 days if it receives a petition, complaint or other legal notice by a third party challenging this Permit to Operate or CEQA or NEPA. The permit holder may, within 10 days of notification, request cancellation of the Permit to Operate. If the permit holder requests cancellation, SMAQMD will cancel the permit within 5 days, and will notify the plaintiffs of the cancellation and request dismissal of the litigation.
[Basis: SMAQMD Rule 201, Section 405]

2. The equipment must be properly maintained and operated in accordance with the information submitted with the application and the manufacturer's recommendations at all times.
[Basis: SMAQMD Rule 201, Section 405 and Rule 202, Section 408.1]

3. The Air Pollution Control Officer and/or authorized representatives must be permitted to do all of the following:
   A. Enter the source premises or any location which any records required by this Permit to Operate are kept.

DATE ISSUED: 01-12-2016
DATE EXPIRES: 10-02-2016 (UNLESS RENEWED)

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: _____

PERMIT NO.: 24569, 24570

REVOCABLE AND NON-TRANSFERABLE

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B. Access and copy any records required by this Permit to Operate.
C. Inspect or review any equipment, operation, or method required under this Permit to Operate.
D. Sample emissions from the source or require samples to be taken.
[Basis: SMAQMD Rule 201, Section 405]

4. This Permit to Operate does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the California Health and Safety Code or the SMAQMD Rules and Regulations.
[Basis: SMAQMD Rule 201, Sections 303.1, 405]

5. The facility may not discharge air contaminants or other materials that cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
[Basis: SMAQMD Rule 402, Section 301]

6. A legible copy of this Permit to Operate must be maintained on the premises with the equipment.
[Basis: SMAQMD Rule 201, Section 401]

EMISSIONS LIMITATIONS

7. The equipment must not discharge into the atmosphere any visible air contaminant other than uncombined water vapor for a period or periods aggregating more than three minutes in any one hour if the discharge is as dark or darker than Ringelmann No. 1 or is equal to or greater than 20% opacity.
[Basis: SMAQMD Rule 401, Section 301]

8. The emissions from the sterilizer after the abatement device may not exceed the following:
[Basis: SMAQMD Rule 201, Section 405 and Rule 202, Section 408.2]

Pollutant	Emission Factors (A) (g/cycle)	Emission Limits (B)		
		lb/day	lb/quarter	lb/year
VOC	1.7	0	0	1

(A) Emission factors for VOC is based on 170 grams of ethylene oxide used per cycle and a 99% control efficiency
(B) Emissions are based on 1 cycle per day, 92 cycles per quarter and 260 cycles per year.

EQUIPMENT OPERATION

9. The sterilizer shall not operate more than the following cycles:
[Basis: SMAQMD Rule 201, Section 405]

Cyles/day	Cycles/quarter	Cycles/year
1	92	260

10. The average concentration of ethylene oxide shall not exceed:

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A. 30 g/ml in any liquid discharge associated with the sterilization cycle
[Basis: SMAQMD Rule 201, Section 405 and Title 17 CCR, Section 93108 (e)(3)]

11. The exhaust systems and ethylene oxide supply system including, but not limited to, any piping, ducting, fittings, valves, or flanges, through which ethylene oxide-contaminated air is conveyed between the sterilizer, aerator and the control device shall be leak-free;
[Basis: SMAQMD Rule 201, Section 405 and Title 17 CCR, Section 93108 (e)(1)]

12. The control device shall be in operation at all times during operation of the sterilizer, as required by the manufacturer and maintain a control efficiency of at least 99.0% destruction by weight.
[Basis: SMAQMD Rule 201, Section 405 and Title 17 CCR, Section 93108 (e)(2)]

13. The exhaust stack of the sterilizer shall exit vertically and shall not be obstructed during operation. A flapper-type rain cap will comply with this condition provided it does not impede the vertical flow of exhaust.
[Basis: SMAQMD Rule 201, Section 405 and Rule 402, Section 301]

SOURCE TEST

14. A source test of the ethylene oxide sterilizer shall be conducted every other year to verify the control efficiency of the abatement device. The first source test was conducted on July 9, 2015. The source test shall be conducted using CARB test method 431.
    A. Submit a source test plan two weeks prior to source test date
    B. Submit the final source test report no later than 60 days after the completion of the source test.
    [Basis: SMAQMD Rule 201, Section 405 and Rule 402, Section 301]

RECORDKEEPING & REPORTING

15. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the Air Pollution Control Officer upon request. Monthly, quarterly, and annual records shall be made available within 30 days of the end of the reporting period.
[Basis: SMAQMD Rule 201, Section 405]

Frequency	Information to be Recorded
At all times	A. MSDS of the Ethylene Oxide canister. B. Documentation showing the quantity of Ethylene Oxide per canister.
Daily	C. Total number of cycles (cycles/day).
Quarterly	D. Total number of cycles (cycles/quarter).
Annually	E. Total number of cycles (cycles/year).

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16. The permit holder must, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.).
[Basis: SMAQMD Rule 201, Section 303.1]

Your application for this air quality Permit to Operate was evaluated for compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD), state and federal air quality rules. The following list identifies the rules that most commonly apply to the operation of your equipment. Other rules may also be applicable.

SMAQMD RULE NO.	RULE TITLE
201	GENERAL PERMIT REQUIREMENTS (8-24-06)
202	NEW SOURCE REVIEW (8-23-12)
401	RINGELMANN CHART (4-19-83)
402	NUISANCE (8-3-77)
STATE	REGULATION TITLE
TITLE 17 CCR SECTION 93801	CARB AIR TOXICS CONTROL MEASURES - ETHYLENE OXIDE AIRBORNE TOXIC CONTROL MEASURE (ATCM) FOR STERILIZERS AND AERATORS

The conditions on this Permit to Operate reflect some, but not all, of the requirements of these rules. Because other rule requirements may apply to the operation, the permit holder should be familiar with all of the rules and related requirements. In addition, because future changes in prohibitory rules may establish more stringent requirements that may supersede the conditions listed here, the permit holder should monitor proposed rules and rule adoption actions at SMAQMD.

For further information please consult your SMAQMD rulebook or contact the SMAQMD for assistance.