



COMMONWEALTH OF  
PUERTO RICO  
 Environmental Quality Board

**TITLE V OPERATING PERMIT  
 AIR QUALITY AREA  
 ENVIRONMENTAL QUALITY BOARD**



<b>Permit Number:</b>	PFE-TV-3569-78-0907-0861
<b>Application Receipt Date:</b>	September 13, 2007
<b>Final or Effective Issue Date:</b>	June 30, 2016
<b>Expiration Date:</b>	June 30, 2021

In conformity with the provisions of Part VI of the Regulation for the Control of Atmospheric Pollution (RCAP) and the provisions of the Code of Federal Regulations (CFR), Volume 40, Part 70 we authorize:

**SARTORIUS STEDIM FILTERS, INC.  
 YAUCO, PUERTO RICO**

hereinafter the **permittee** or **Sartorius Stedim Filters, Inc.**, to operate a stationary source of air pollutants emissions consisting of the units described in this permit. Until this permit expires, is modified or revoked, the permittee shall be able to emit atmospheric pollutants as a result of those processes and activities directly related and associated with the sources of emission, in compliance with the requirements, limitations and conditions of this permit, until its expiration date or until such is modified or revoked.

The conditions of the permit shall be enforceable by the federal and state government. Those requirements that are enforceable only by the state government shall be identified as such in the permit. A copy of the permit shall be kept in the aforementioned facility at all times.

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## TABLE OF CONTENTS

Section I – General Information .....	1
Section II - Emission Units and Control Equipment Description.....	2
Section III - General Conditions of the Permit .....	4
Section IV - Allowable Emissions.....	16
Section V - Specific Permit Conditions.....	17
Section VI - Insignificant Emission Units .....	36
Section VII - Permit Shield.....	37
Section VIII - Permit Approval.....	39
Appendices.....	40
Appendix I - Definitions and Abbreviations.....	41

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**Section I - General Information**

**A. Facility Information**

Company Name: Sartorius Stedim Filters, Inc.  
Postal Address: P.O. Box 6  
Yauco, P.R. 00698  
Facility Location: PR-128 Intersection with PR-376  
Yauco, P.R.  
Responsible Officer: Sr. Marcos A. López  
Contact Person: Operations Manager  
Phone: 787-856-5020  
Fax: 787-856-1292  
SIC Primary Code: 3569

**B. Process Description**

Sartorius Stedim Filters, Inc. is located on Road PR-128 intersection with Road PR-376 in Yauco, Puerto Rico.

The facility manufactures cellulose acetate membrane filters. The pulverized cellulose is mixed with the corresponding solvents of methylene chloride and ethanol. The homogenized mix goes through a molding machine where the membrane is produced. In this stage the solvents are evaporated, which are recovered through a Recovery Unit when manufacturing cellulose acetate membranes. The emissions are mainly fugitive, result of the escapes from the membrane production (tanks and in the recovery unit).

The facility also has a boiler, internal combustion engines for two electricity generators and fire pumps.

Annual emissions of methylene chloride, a Hazardous Air Pollutant listed on Section 112(b) of the Federal Clean Air Act, is over the threshold for major source.

**Section II - Emission Units and Control Equipment Description**

The emission units regulated by this permit are the following:

Emission Units	Description	Control Equipment
EU#1	<p><u>Methylene Chloride Storage Tank (MeCl<sub>2</sub>):</u></p> <p>Type: Horizontal / Fixed Roof            Capacity: 10,568 gallons (40 m<sup>3</sup>)</p>	None
EU#2	<p><u>Ethanol Storage Tank (EtOH):</u></p> <p>Type: Horizontal / Fixed Roof            Capacity: 10,568 gallons (40 m<sup>3</sup>)</p>	None
EU#3	<p><u>Mixing Room:</u> The cellulose nitrate membrane is mixed with the ethanol and methylene chloride solvents in two mixing tanks.</p> <p>Tank No. 1            Capacity: 734 gallons (2.8 m<sup>3</sup>)            Stored Material: Ethanol</p> <p>Tank No. 2            Capacity: 734 gallons (2.8 m<sup>3</sup>)            Stored Material: Methylene Chloride</p>	None

*Cellulose nitrate membrane*

Emission Units	Description	Control Equipment
EU#4	<p><u>Molding Room:</u> Manufacturing of cellulose acetate membrane filters.</p> <p>The homogenized mix is sent to the molding machine to produce the membrane. The evaporated solvents are recovered by the EU#5 Carbon Adsorption Unit with efficiency of 96.45% for MeCl<sub>2</sub> and 96.45% for EtOH.</p> <p>Molding Area: 150' x 20'</p>	EU#5 Carbon Adsorption Unit
EU#5	<p><u>Recovery Unit:</u></p> <p>Consists of an activated carbon adsorption unit to recover 96.45% of methylene chloride (MeCl<sub>2</sub>) and 99.98% of ethanol (EtOH).</p> <p>Capacity: 1176 pcm</p>	-
EU#6	<p><u>Emergency Fugitive Emissions from the Recovery Unit:</u></p> <p>Operation: Fugitive emissions through this By-Pass unit will only occur in emergency cases in the Carbon Absorption Unit.</p>	None
EU#7	<p><u>Boiler (546 hp) – Nitrogen Heater:</u></p> <p>In this unit the nitrogen that is used to regenerate the carbon adsorption unit is heated.</p> <p>Fuel type: Diesel</p> <p>Maximum fuel consumption design rate: 12.0 gallons/hr.</p> <p>Model H-400.</p>	None

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Emission Units	Description	Control Equipment
EU#8	<u>Emergency Electricity Generator (500 hp):</u>  Internal combustion engine. Fuel type: Diesel Maximum fuel consumption design rate: 25.5 gallons/hr. Brand: Onan	None
EU#9	<u>Emergency Electricity Generator (402 hp):</u>  Internal combustion engine. Fuel type: Diesel Maximum fuel consumption design rate: 22.5 gallons/hr Brand: Onan, model 300	None
EU#10	<u>Emergency Fire Pump (99 hp):</u>  Internal combustion engine. Type of fuel: Diesel Maximum fuel consumption design rate: 25.0 gallons/hr. Brand: Detroit	None

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**Section III - General Conditions of the Permit**

1. **Sanctions and Penalties: Sartorius Stedim Filters, Inc.** is required to comply with all the terms, conditions, requirements, limitations and restrictions established in this permit. Any violation of the terms shall be subject to administrative, civil or criminal measures, as established in Article 16 of the Environmental Public Policy Law (Law Number 416 of September 22, 2004, as amended).

2. **Right of Entry:** As specified under Rules 103 and 603(c)(2) of the RCAP, **Sartorius Stedim Filters, Inc.** shall allow the entry of the EQB representatives to their facilities, after they identify themselves presenting their credentials, to perform the following activities:
- a) To enter or access any **Sartorius Stedim Filters, Inc.** location where a source of emissions is located or where activities related to air emissions are conducted, or where files are kept according to the conditions of the permit, the agreement with the RCAP or under the Federal Clean Air Act;
  - b) To have access and copy, during reasonable hours, to any file that shall be preserved according to the conditions of the permit, the agreement with the RCAP or under the Federal Clean Air Act;
  - c) Inspect and examine any facility, equipment (including sampling equipment and air pollutants control equipment), practices or operations (including methods used for quality control) regulated or required under the permit, as well as sampling emissions and fuel;
  - d) As authorized by the Law and the RCAP, sampling the substances or the parameters during reasonable hours in order to ensure compliance with the permit and other applicable requirements.
3. **Affidavit:** All the required reports in conformity with Rule 103(D) of the RCAP (that is, semiannual monitoring reports and annual compliance certification) shall be submitted with a sworn declaration or affidavit by the Responsible Officer or a duly authorized representative. The sworn declaration with attest to the veracity, correctness and accuracy of the records and reports presented.
4. **Data Availability:** As specified under Rule 104 of the RCAP, all the emission data obtained by or submitted to the EQB, including the data informed according to Rule 103 of the RCAP, as well as those obtained in any other way, shall be available for public inspection and shall also be made accessible to the public in any other way that the EQB considers appropriate.
5. **Emergency Plan:** As specified under Rule 107 of the RCAP, **Sartorius Stedim Filters Inc.** shall have available an Emergency Plan, which shall be consistent with adequate safety practices and shall provide for the reduction or retention of the facility emissions during periods classified by the EQB as warnings, watches or emergencies. These plans shall identify the sources of emission, include the reduction to be attained for each source and

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the way such reduction shall be accomplished. These plans shall be available at all times for the inspection of any authorized representative of the EQB.

6. **Control Equipment:** The permittee shall comply with Rule 108 of the RCAP in the following way:

- a) All the air pollution control equipment or measures shall provide the necessary control to ensure the continuous compliance with the applicable rules and regulations. Such equipment or measures shall be installed, preserved and operated according to the conditions imposed by this Title V permit within the operational limits specified by the manufacturer.
- b) The material gathered from the equipment for air pollution control shall be disposed according to the applicable rules and regulations. The removal, handling, transportation, storage, treatment or disposal shall be done in a way that shall not cause environmental degradation and in conformity with the applicable rules and regulations.
- c) The EQB could require, when considered appropriate to safeguard the health and welfare of human beings, the installation and maintenance of an additional, complete and separate air pollution control equipment with a capacity that could be even equal to the capacity of the primary control equipment. Furthermore, it could be required that such air pollution control equipment be operated continuously and along with the regularly required air pollution control equipment.
- d) All air pollution control equipment shall be operated at all times while the source of emission under control is operating.
- e) In case of a shutdown of the air pollution control equipment for the necessary scheduled maintenance, the intent to shutdown such equipment shall be reported to the Board at least three (3) days prior to the planned shutdown. The prior notice shall include, but will not be limited to the following:
  - (1) Identification of the specific source that will be out of service, as well as its location and permit number.
  - (2) The expected length of time that the air pollution control equipment will be out of service.
  - (3) The nature and quantity of emissions of air pollutants that will be probably emitted while the control equipment is out of service.



- (4) Those special measures that will be taken to shorten the disuse period of the control equipment, such as the use of irregular personnel and additional equipment.
- (5) The reasons why it would be impossible or impractical to shutdown the operating source during the maintenance period.
- f) It shall to the extent possible, maintain and operate all the time, including periods of start-up, shutdown and malfunction, any affected source, including associated air pollution control equipment, consistent with the design specifications of the original manufacturer and in compliance with applicable rules and regulations and permit conditions.
- g) The permittee shall keep copies of the calibration reports and monthly inspections of the control equipment. The records shall be available for the EQB personnel when requested.

7. **Compliance Certification:** According to Rule 602(c)(2)(ix)(C) of the RCAP, the permittee shall submit annually a compliance certification. This certification shall be submitted both to the Board and to the Environmental Protection Agency (EPA)<sup>1</sup>, no later than April 1<sup>st</sup> of each year, covering the previous natural year. The compliance certification shall include, but is not limited to, the information required under Rule 603(c) of the RCAP as follows:

- a) The identification of each term or condition of the permit that supports the certification; and
- b) The compliance status. Each deviation shall be identified and taken in consideration in the compliance certification; and
- c) If the compliance was continuous or intermittent; and
- d) The methods or other means used to determine the compliance status of the source in each term and condition, currently and throughout the report period, consistent with sections (a)(3) - (5) of Rule 603 of the RCAP; and

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<sup>1</sup> The certification for the EQB shall be sent by mail to: Manager, Air Quality Area, P.O. Box 11488, San Juan, PR, 00910. The certification for the EPA shall be sent by mail to: *U.S. Environmental Protection Agency, 48 Carr. 165 Suite 7000, Guaynabo, P.R. 00968-8073.*

- e) Identify the possible exceptions to compliance, any period during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (CAM) has occurred; and
- f) Any other facts the Board may require to determine the compliance status of the source.

8. **Regulatory Compliance:** As specified under Rule 115 of the RCAP, in case of infringements to the RCAP or any other applicable rule or regulation, EQB may suspend, modify or revoke any relevant permit, approval, waiver or any other authorization issued by the EQB.

9. **Location Approval:** As specified under Rule 201 of the RCAP, nothing in this permit shall be construed as authorizing the location or construction of a major stationary source or major modification of a major stationary source, without prior authorization from the EQB and without demonstrating compliance with the National Ambient Air Quality Standards (NAAQS). This permit does not authorize the construction of a new minor source without previously obtaining a construction permit as provided under Rule 203 of the RCAP.

10. **Objectionable Odors:** As specified under Rule 420 of the RCAP, **Sartorius Stedim Filters, Inc.** shall not cause or allow the emission to the atmosphere of matter that produces an objectionable or unpleasant odor that can be perceived in an area other than those that have been designated for industrial purposes. If objectionable odors are detected beyond the premises that have been designated for industrial purposes and complaints are received, **Sartorius Stedim Filters, Inc.** shall investigate and take actions to minimize or eliminate the objectionable odors if necessary. [This condition is enforceable only by the State].

11. **Permit Renewal Applications:** As specified in Rule 602(a)(1)(iv) of the RCAP, **Sartorius Stedim Filters, Inc.** shall submit its request for permit renewal to the EQB at least 12 months before its expiration date. The responsible official shall certify the forms required under paragraph (c)(3) of Rule 602 of the RCAP.

12. **Permit Duration:** As specified under Rule 603 of the RCAP, the following terms apply during the duration of this permit:

- a) **Effective date:** The permit shall be valid once signed by the government Board of the Environmental Quality Board, and once it has been ratified by the Environmental Protection Agency (EPA) and/or after 45 days elapsed from its presentation to the agency.

- b) Expiry: This authorization shall have a fixed term of five (5) years from its Effective Date. The expiration date shall be automatically extended until the EQB approves or denies a renewal application (Rule 605(c)(4)(ii) of the RCAP) but only in cases where **Sartorius Stedim Filters, Inc.** submits a complete renewal application at least twelve (12) months before the expiration date; [Rules 603 (a)(2), 605 (c)(2), 605 (c)(4) of the RCAP.]
  - c) Permit Shield: According to Rule 605(c)(4)(i) of the RCAP, the permit shield could be extended beyond the term of the original permit until its renewal, only if a complete and on-time renewal application is submitted.
  - d) In case the permit is questioned by a third party, the permit shall remain active until it is revoked by a justice court with jurisdiction over the questioned matter.
13. **Recordkeeping Requirements:** As specified in Rule 603(a)(4)(ii) of the RCAP, **Sartorius Stedim Filters, Inc.** shall retain records of all required sampling data and support information for a period of 5 years from the date of sampling, measurement, report or sampling application.
14. **Semiannual Monitoring/Sampling Reports Requirement:** According to Rule 603(a)(5)(i) of the RCAP, the permittee shall submit to the Board reports on all sampling, every six months or more frequently if required by the EQB or any other applicable requirement. These reports cover two major elements. The first element is the summary of all the periodical monitoring/sampling required in this permit. The second element requires all deviations of the conditions of the permit to be clearly identified, summarized and informed to the Board. All instances of deviations from permit requirements shall be clearly identified in such reports. All required reports shall be certified by the responsible official as provided in Rule 602(c)(3) of the RCAP. The report that covers the period from January to June shall be submitted no later than October 1<sup>st</sup> of the same year and the report covering the period from July to December shall be submitted no later than April 1<sup>st</sup> of next year. Once the guidelines are developed by the Board, they shall be used to complete these reports.
15. **Reporting Emergency-Related Deviations:** According to Rule 603(a)(5)(ii)(a) of the RCAP, any deviation resulting from a disruption (such as a sudden failure or breakdown) or emergency as defined under Rule 603(e) of the RCAP shall be reported within the next 2 working days from the time the emission limits were exceeded due to the emergency if **Sartorius Stedim Filters, Inc.** wants to use the affirmative defense authorized under Rule 603(e) of the RCAP. According to Rule 603(a)(5)(ii)(b) of the RCAP, the Board shall be notified by the permittee (via telephone to 787-767-8181 ext. 3267, fax to 787-756-5906, letter, or to the following email: [aire@jca.pr.gov](mailto:aire@jca.pr.gov)) within the next 24 hours if there is a

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deviation that results in the release of hazardous air pollutant emissions for more than an hour in excess of the applicable limit. If such emergency deviation lasts for more than 24 hours, the affected units shall be operated until the end of the cycle or for 48 hours, whichever occurs first. The Board may only extend the operation of an emission source in excess of 48 hours, if the source demonstrates to the satisfaction of the Board that the National Ambient Air Quality Standards shall not be exceeded and there will be no risk to the public health.

16. **Reporting Deviations (Hazardous Air Pollutants):** The source shall act as specified in its Emergency Response Plan (established in Rule 107(C) of the RCAP), where such a plan has shown there is no significant impact on the premises other than those that have been designated for industrial purposes or cease operations immediately if there is a significant impact on premises other than those that have been designated for industrial purposes (This condition is enforceable only by the State). According to Rule 603(a)(5)(ii)(b) of the RCAP, the Board shall be notified within the next 24 hours if there is a deviation that results in the release of hazardous air pollutant emissions for more than an hour in excess of the applicable limit. For the discharge of any regulated air pollutant that continues for more than two (2) hours in excess of the applicable limit, the Board shall be notified within 24 hours of the deviation. The permittee shall also submit to the EQB within 7 days of the deviation, a detailed written report, including the probable cause, time and duration of the deviation, remedial action taken and steps followed to prevent recurrence.
17. **Severability Clause:** According to Rule 603(a)(6) of the RCAP, the provisions of this permit are severable. In the event of a successful challenge to any part of the permit in an administrative or judicial forum, or if any clause of the permit is declared invalid, such determination shall not affect the remaining provisions contained herein, including those relating to emission limits, terms and conditions whether they are specific or general as well as the sampling, recordkeeping and reporting requirements.
18. **Permit Non-Compliance:** According to Rule 603(a)(7)(i) of the RCAP, **Sartorius Stedim Filters, Inc.** shall comply with all the permit conditions. Any permit non-compliance shall constitute a violation of the Regulation and shall be grounds for taking the appropriate enforcement action, impose sanctions, revoke, cancel, modify, reissue the permit or deny the permit renewal application.
19. **Disallowed Defense:** As specified under Rule 603 (a)(7)(ii) of the RCAP, **Sartorius Stedim Filters, Inc.** shall not use as a defense for an enforcement action, the statement that it would have been necessary to halt or reduce the allowed activity to be in compliance with the permit conditions.

20. **Permit Modification and Revocation:** As specified under Rule 603(a)(7)(iii), this permit may be modified, revoked, reopened, reissued or terminated for cause. The filing of a petition by **Sartorius Stedim Filters, Inc.** for modification, revocation and reissuance or termination of the permit, or of a notification of planned changes or anticipated non-compliance does not suspend any permit condition.
21. **Property Rights:** As specified under Rule 603(a)(7)(iv) of the RCAP, this permit does not create or convey any property rights of any sort or any exclusive rights.
22. **Obligation to Furnish Information:** As specified under Rule 603(a)(7)(v) of the RCAP, **Sartorius Stedim Filters, Inc.** shall furnish to the Board, within a reasonable period, any information that the EQB may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine whether the permit is being complied with. Upon request, **Sartorius Stedim Filters, Inc.** shall also furnish to the EQB copy of all the documents required by this permit.
23. **Prohibition on Default Issuance:** As specified under Rule 605(d) of the RCAP, it shall never be considered that a permit has been issued by default as a result of the failure of EQB to take final action on a permit application within 18 months. The fact that the EQB did not issue a final permit within 18 months should be treated as a final action solely for the purpose of obtaining a judicial review in state court.
24. **Administrative Permit Amendments and Modification:** As specified under Rule 606 of the RCAP, no amendments or changes to the permit are allowed unless **Sartorius Stedim Filters, Inc.** meets the requirements for administrative permit amendments and modifications established under the RCAP.
25. **Permit Reopening:** As specified under Rule 608(a)(1) of the RCAP, this permit shall be reopened and revised under the following circumstances:
- a) When additional requirements under any law or regulation become applicable to **Sartorius Stedim Filters, Inc.**, provided that the term of duration of the permit runs for 3 additional years or more. Such reopening shall be completed 18 months after the applicable requirement is promulgated. No such reopening is required if the effective date of the requirement is later than the date of expiry of the permit, unless the original permit or any of its terms and conditions have been extended pursuant to Rule 605(c)(4)(i) or 605(c)(4)(ii) of the RCAP.

- b) Whenever the EQB or EPA determines that the permit contains a material mistake or that inaccurate statements were made when establishing the emissions standards or other terms or conditions of the permit.
- c) Whenever the EQB or EPA determines that the permit shall be revised or revoked to assure compliance with applicable requirements.

26. **Change of Name or Responsible Officer:** This permit is issued to the **Sartorius Stedim Filters, Inc.** In the event that the company or facility name changes, the responsible official shall submit an administrative amendment to the permit to reflect the change in name. In case the responsible official changes, the new responsible official shall submit, no later than 30 days after the change, an administrative amendment including an affidavit in which he/she accepts and commits to comply with all the conditions established in this permit.
27. **Change of Name and/or Ownership:** This permit is issued to the **Sartorius Stedim Filters, Inc.** In the event that the company or facility is transferred to another owner or changes operational control and the EQB determines that no other change is necessary, the new responsible official shall submit an administrative amendment. The administrative amendment shall include an affidavit in which the new responsible official accepts and commits to comply with all the conditions established in this permit, and a written agreement containing the specific date for transfer of responsibility, coverage and permit responsibility between the current and new permit holder. This does not apply if the EQB determines that changes to the permit are necessary.
28. **Change in Operating Scenarios:** As specified under Rule 603(a)(10) of the RCAP, the permittee shall, contemporaneously with making a change from one scenario to another, record in a logbook the scenario under which it is operating. This log is kept onsite at all times.
29. **Final Action:** As specified under Rule 605(d) of the RCAP, it shall never be considered that a permit has been issued by default as a result of the failure of EQB to take final action on a permit application within 18 months. The fact that the EQB did not issue a final permit within 18 months should be treated as a final action solely for the purpose of obtaining a judicial review in state court.
30. **Renovation/Demolition Works:** **Sartorius Stedim Filters, Inc.** shall comply with the provisions published in the 40 CFR §61.145 and §61.150 and Rule 422 of the RCAP and Regulation for Processing General Permits (General Permit for Handling Asbestos-Containing Materials) when conducting any renovation work or demolition of materials containing asbestos in its facilities.

31. **Risk Management Plan:** If during the term of this permit **Sartorius Stedim Filters, Inc.** is subject to the 40 CFR part 68, it shall submit a Risk Management Plan according to the compliance schedule in 40 CFR part 68.10. If during the term of this permit, **Sartorius Stedim Filters, Inc.** is subject to 40 CFR part 68, as part of the annual compliance certification required under 40 CFR part 70, it shall include a compliance certification with the requirements of Part 68, including the registration and Risk Management Plan.

- a) Identify the risks that may result in accidental releases using the appropriate risk assessment techniques.
- b) Design, maintain and operate a safe facility.
- c) Minimize the consequences of accidental releases if they occur.

32. **General Obligation:** **Sartorius Stedim Filters, Inc.** shall have the general obligation to identify hazards that may result from accidental releases of a controlled substance under Section 112(r) of the Federal Clean Air Act or any other extremely hazardous substance in a process, using generally accepted analysis techniques, designing, maintaining and operating a safe facility, and minimize the consequences of accidental releases if they occur, as required under Section 112(r)(1) of the Federal Clean Air Act and Rule 107(D) of the RCAP.

33. **Refrigerant Requirements (Climatology Protection and Stratospheric Ozone):**

- a) If there are refrigeration equipment or appliances in its facilities, including air conditioners using refrigerants classified as Class I or II under 40 CFR Part 82, Subpart A, Appendices A and B, **Sartorius Stedim Filters, Inc.** shall provide maintenance, service or repair according with the practices, personnel certification requirements, disposal requirements, and certification requirements for recycling and recovery equipment pursuant to 40 CFR Part 82, Subpart F.
- b) Owners or operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchases and refrigerant added to such equipment pursuant to 40 CFR §82.166.
- c) **Repair of Motor Vehicles:** **Sartorius Stedim Filters, Inc.** shall comply with all applicable requirements in 40 CFR 82 Subpart B, Servicing of Motor Vehicle Air Conditioners, if **Sartorius Stedim Filters, Inc.** makes repairs to motor vehicles air conditioners involving cooling/refrigerant substances (or substitute regulated substances) affecting the ozone layer. The term motor vehicle, as used in Subpart B

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does not include cooling systems for compressed air used as refrigerated cargo or systems with refrigerant HCFC-22 used on passenger buses.

34. **Labeling of Products that use ozone-depleting substances: Sartorius Stedim Filters, Inc.** shall comply with the standards for labeling products that use ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E.

- a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance and all products directly manufactured with a class I substance shall bear the required warning statement if it is being introduced into interstate commerce according to 40 CFR §82.106.
- b) The placement of the required warning statement shall comply with the requirements under 40 CFR §82.108.
- c) The shape of the label bearing the required warning statement shall comply with the requirements under 40 CFR §82.110.
- d) No person may modify, remove or interfere with the required warning statement except as described in 40 CFR §82.112.

35. **Waterproofing Roof Surfaces: Sartorius Stedim Filters, Inc.** shall not cause or allow the application of hot tar or any other coating material containing organic compounds without prior approval of the EQB. The use of used oil or hazardous waste for waterproofing is prohibited. [This is a state-only enforceable requirement.]

36. **Open Field Burning:** As specified under Rule 402 of the RCAP, **Sartorius Stedim Filters, Inc.** shall not cause or allow open field burning of waste at the location of the facility except as provided in item (E) of that rule which authorizes to perform fire control training and research fire control techniques with prior approval of the Board.

37. **Fugitive Emissions:** Compliance with Rule 404 of the RCAP:

- a) **Sartorius Stedim Filters, Inc.** shall use, as much as possible, water or chemical compounds for chemical stabilization and to control the dust in the demolition of buildings and structures, in construction works, in roads gradation and land deforestation.
- b) **Sartorius Stedim Filters, Inc.** shall not cause or allow visible emissions of fugitive dust beyond the boundary line of the property on which the emissions originated.

- c) When air pollutants escape from a building or equipment causing disturbance or infringing any regulation, the Board could order the building or the equipment used in the process, handling and storage to be enclosed and ventilated in way that all the emissions be controlled by removing or destroying such air pollutants before their emission. The implementation of this measure should not create occupational health danger.
38. **Compliance Clause:** The compliance with this permit in no way relieves **Sartorius Stedim Filters, Inc.** to comply with other state and federal laws, regulations, permits, administrative orders or applicable court orders.
39. **Emissions Calculation:** **Sartorius Stedim Filters, Inc.** shall submit on **April 1<sup>st</sup> of each year**, the calculation of current or allowable emissions of the previous calendar year. The emissions calculation shall be submitted on the forms prepared by the EQB for this purpose and the responsible official shall certify that all information is true, correct and representative of the activity included in the permit.
40. **Annual Fee:** According to Rule 610 of the RCAP, **Sartorius Stedim Filters, Inc.** shall submit an annual payment based on the emissions calculations for each regulated pollutant. Payment shall be based on current emissions at the rate of \$37.00 per ton, unless the Board decides otherwise pursuant to Rule 610(b)(2)(iv) of the RCAP. This payment for the previous calendar year shall be made on or before **June 30 of each year**.
41. **Amendments or New Regulations:** In case a regulation is established or an existing (state or federal) regulation is amended that applies to the facility, the provisions of this regulation or amendment shall be complied with when it becomes effective.
42. **Reports:** Unless the condition specifies otherwise, any requirement related to sending information to the Board should be addressed to: Manager, Air Quality Area, PO Box 11488, San Juan, P.R. 00910.
43. **Reservation of Rights or Rights Reserved:** Except as expressly provided in this Title V permit:
- a) Nothing contained herein shall prevent the Board or EPA to take administrative enforcement measures or legal action to enforce the terms of the Title V permit, including but not limited to the right to seek an injunction and impose statutory penalties and/or fines.
- b) Nothing herein shall be construed to limit the rights of the Board or EPA to undertake any criminal enforcement activity against **Sartorius Stedim Filters, Inc.** or anyone.

- c) Nothing herein shall be construed to limit the authority of the Board or EPA to undertake any action in response to conditions that present an imminent and substantial health, welfare or environmental hazard.
- d) Nothing herein shall be construed to limit the rights of **Sartorius Stedim Filters, Inc.** to an administrative hearing and judicial review of a termination/revocation/denial action according to the Regulations and the Environmental Public Policy Law.

**Section IV - Allowable Emissions**

A. The emissions described in the following table represent the allowable emissions at the time of the permit application and shall be used for payment purposes only. According to the EQB Resolution RI-06-02<sup>2</sup>, the emissions calculations shall be based on the current emissions of the **Sartorius Stedim Filters, Inc.** However, calculations based on the emissions cap of the facility shall be accepted. If **Sartorius Stedim Filters, Inc.** decides to make the calculations based on the allowable emissions, **Sartorius Stedim Filters, Inc.** shall pay the same charge per ton as the sources that decide to make the calculations based on current emissions. Also, when the **Sartorius Stedim Filters, Inc.** requests a modification, administrative change or minor modification to its Title V permit, the source shall only pay those charges related with any emissions increase (if any) per ton, based on the change and not based on the previously paid total charges in conformity with Rule 610(a) of the RCAP.

Pollutants	Allowable Emissions (Tons/year)
PM	0.655
SO <sub>2</sub>	4.296
NO <sub>x</sub>	8.808
CO	1.930
VOC	51.924
Pb	2.102x10 <sup>-5</sup>
CO <sub>2e</sub>	1,598.69
<b>CAP (Combustion)</b>	0.1188
<b>CAP (MeCl<sub>2</sub>)</b>	127.42

<sup>2</sup> EQB Resolution - Payment procedure for Title V operating charges and Title V permit renewal charges, issued on March 20, 2006.

**Section V - Specific Permit Conditions**

**A. EU #1 and EU #2: Methylene Chloride (MeCl<sub>2</sub>) and Ethanol (EtOH) Storage Tanks respectively:**

The following table includes the summary of the applicable requirements, as well as the test methods.

Condition	Parameter	Value	Units	Test Methods	Method Frequency	Recordkeeping Requirements	Reports Frequency
VOC Emission Limit for EU#2	VOC Emission Rate	3	lb/h	Emission calculations or documents supporting exemption	Annual	Emission calculations or documents supporting exemption	180 days after the approval of this permit.
		15	lb/day				Semiannual (See General Condition 14)
Storage limit	EU#1 (MeCl <sub>2</sub> )	26,866	Gallons per year	Log	Monthly	Log	Semiannual (See General Condition 14)
	EU#2 (Ethanol)	31,958					
Capacity of EU#1 and EU#2:	EU#1 (MeCl <sub>2</sub> )	10,568	Gallons	Documentation showing the dimension and capacity of the tanks	During the permit duration:	Documentation showing the dimension and capacity of the tanks	Semiannual (See General Condition 14)
	EU#2 (Ethanol)	10,568					

**1. COV Emission Cap for EU#2:**

- a) In conformity with Rule 419 of the RCAP, the permittee shall not allow the emission of more than 3 pounds of volatile organic compounds in any period of one hour, or more than 15 pounds per day from any item, machine, equipment or any other artifact without having an acceptable control system, a program or mechanism for the reduction and control of emissions or both, as approved or required by the Board. In this case, the permittee shall submit, for the approval of the Board, an acceptable control system for the unit or establish a program for the prevention and reduction of emissions no later than 180 days after the date of approval of the permit. **[Condition enforceable only by the state]**

- b) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall keep records of all the required sampling data and support information for a period of 5 years from the date of the sampling, measurement, report or sampling application.

**2. Storage Limits for EU#1 and EU#2:**

- a) The EU#1 tank with a capacity of 10,568 gallons shall only be used for storing methylene chloride. The maximum amount allowed for methylene chloride storage will be 26,888 gallons per year. [Cumulative Increase]
- b) The EU#2 tank with a capacity of 10,568 gallons shall only be used for storing ethanol. The maximum amount allowed for ethanol storage will be 31,958 gallons per year. [Cumulative Increase]
- c) The permittee shall keep a monthly record in which the loads for each tank will be noted. This shall be available at all times to be inspected.
- d) The permittee shall submit a semiannual summary of the loads to each tank along with the semiannual report required under condition III.14 of this permit.
- e) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall keep records of all the required sampling data and support information for a period of 5 years from the date of the sampling, measurement, report or sampling application.

**3. Storage Limits for EU#1 and EU#2 tanks:**

- a) To demonstrate the tanks are exempt from the 40 CFR, Part 60, Subpart Kb provisions, the shall keep accessible, during the life of the source, the records showing the dimensions of each tank and an analysis showing their capacities, as specified under Section 60.116b, paragraph (b). According to 40 CFR 60.110b, paragraph (b), the storage tanks with a design capacity less than 75 m<sup>3</sup> are exempt of the General Provisions (Part 60, Subpart A) and the provisions of Subpart K of the same Part.

**B. EU#3, EU#4, EU#5, and EU#6: Mixing Room, Molding Room, Recovery Unit and Fugitive Emissions Emergency of the Recovery Unit, respectively.**

The following table includes the summary of the applicable requirements, as well as the test methods.

Condition	Parameter	Value	Units	Test Methods	Method Frequency	Recordkeeping Requirements	Reports Frequency
Membrane production	Cellulose acetate membrane produced area	480,000	m <sup>2</sup> /year	Production logs and material purchases receipts	Annual	Production records and material purchases receipts	Semiannual (See General Condition 14)
COV Emission Limit	COV Emission Rate	3	lb/hr	Emission calculations or documents supporting exemption	No later than 180 days after the approval date of this permit.	Emission calculations or documents supporting exemption	Semiannual (See General Condition 14)
		15	lb/day				

**1. Membrane Production Limit:**

- a) The permittee shall not exceed the production of cellulose acetate membranes of 480,000 m<sup>2</sup> per year.
- b) According to Rule 603(a)(4)(ii) of the RCAP, the permittee shall keep accessible, for a period of five years, logs including the following information:
  - (1) Amount of lots produced per month and the cellulose membrane area (m<sup>2</sup>) per lot,
  - (2) Total membrane area produced per month (m<sup>2</sup>),
  - (3) Amount of each solvent (gallons) used each month,
  - (4) The monthly emissions and the emissions in each period of twelve (12) consecutive months. The emissions of any twelve (12) month period shall be calculated through the sum of the monthly emissions limit and the emissions during the previous eleven (11) months.
- c) The permittee shall submit a semiannual summary of the acetate membrane production in square meters along with the semiannual report required under condition III.14 of this permit.
- d) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall keep records of all the required sampling data and support information for a period of 5 years from the date of the sampling, measurement, report or sampling application.

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**2. VOC Emissions Limits:**

- a) In conformity with Rule 419 of the RCAP, the permittee shall not allow the emission of more than 3 pounds of volatile organic compounds in any period of one hour, or more than 15 pounds per day from any item, machine, equipment or any other artifact without having an acceptable control system, a program or mechanism for the reduction and control of emissions or both, as approved or required by the Board. For emission units EU#3, EU#4, and EU#6, the permittee shall submit for the approval of the Board, an acceptable control system for the units or establish a program for the prevention and reduction of emissions no later than 180 days after the date of approval of this permit. [**Condition enforceable only by the state**]
- b) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall keep records of all the required sampling data and support information for a period of 5 years from the date of the sampling, measurement, report or sampling application.

**3. EU#5 equipment control performance, Carbon Adsorption Unit:**

- a) The permittee shall perform a performance test during the first year of the permit to demonstrate the control efficiency of the unit and establish under the worst scenario conditions the characteristics of the carbon adsorption unit regeneration cycle specified below; [Rule 603 (a)(3) of the RCAP]
  1. Minimum regeneration frequency (for example, operation time since the last regeneration process).
  2. Minimum temperature at which the bed is heated during regeneration.
  3. Maximum temperature at which the bed is cooled, measured within 15 minutes after completion of the cooling phase.
  4. Minimum regeneration nitrogen flow.
- b) During the test, the source shall operate at full capacity or based on a representative performance of the affected facility when sampling; meaning that after demonstrating compliance with any applicable emission limit, the Board can restrict the operation of the source to the capacity reached during the performance tests. [Rule 106 (F) of the RCAP]
- c) The permittee shall submit to the EQB, 30 days before the test start date, a detailed sampling protocol that describes all the test equipment, procedures and quality

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assurance measures used. The protocol shall be specific for the test, facility, operational conditions and parameters that will be measured. [Rule 106 (C) of the RCAP]

- d) The permittee shall submit a written notification indicating the sampling date, 15 days before the sampling, so the EQB may appoint an observer. [Rule 106 (D) of the RCAP]
- e) The permittee shall submit two copies of the sampling results report within 60 days after the tests. This report shall contain the information required under Rule 106(E) of the RCAP.
- f) The permittee shall establish the sampling parameter levels based on the performance test supplemented by engineering assessments and manufacturer's recommendations.
- g) The permittee shall provide a temperature indicator to monitor the temperatures of the emission unit.
- h) The permittee shall provide a regeneration flow meter in the unit capable of registering the total regeneration flow.
- i) The temperature indicator and the flow meter of the unit shall be calibrated yearly (every twelve months) and the records or documents of the available calibrations shall be kept at all times in the facility to be reviewed by the personnel of the Board.
- j) The permittee shall verify the carbon bed of the unit (every twelve months) for poisoning (carbon pollution) according to the manufacturer's specifications. Shall keep the records or documents of this verification available at all times in the facility to be reviewed by the personnel of the Board.
- k) The permittee shall prepare and keep a record, where the regeneration cycle characteristics of the unit specified in the test results approved by the Board are annotated for each regeneration cycle, as follows;
  1. Minimum Regeneration frequency (operation time since the end of the last regeneration).
  2. Minimum temperature at which the bed is heated during regeneration.
  3. Maximum temperature at which the bed is cooled, measured within 15 minutes after completion of the cooling phase.

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4. Minimum regeneration flow.

- l) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall keep records of all the required sampling data and support information for a period of 5 years from the date of the sampling, measurement, report or sampling application.

4. Emergency Report for unit EU#6:

- a) For emission unit EU#6, the permittee shall notify the Board (via telephone to 787-767-8181 ext. 3267, fax to 787-756-5906, letter, or to the following email: [aire@jca.pr.gov](mailto:aire@jca.pr.gov)) within the next 24 hours if there is an emergency in this unit that results in the release of hazardous air pollutant emissions for more than an hour. For the discharge of any air pollutant that continues for more than two hours in this unit, the Board shall be notified within 24 hours of the emergency. The permittee shall also submit to the EQB within 7 days of the emergency, a detailed written report, including the probable cause, time and duration of the emergency, remedial action taken and steps followed to prevent recurrence.
- b) The permittee shall submit a semiannual summary of the emergencies in this unit along with the semiannual report required under condition III.14 of this permit.
- c) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall keep records of all the required sampling data and support information for a period of 5 years from the date of the sampling, measurement, report or sampling application.

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C. External Combustion Unit: EU#7: Boiler (546 hp)

The following table includes the summary of the applicable state requirements, as well as the test methods.

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping Requirements	Reports Frequency
Particulate Matter Emission Limit	Particulate matter	0.3	Lb/MMBtu	Method 5	During the first year of duration of the permit.	Sampling protocol logs, support information and final report.	Final Report: no later than 60 days after the test. Semiannual (See General Condition 14)

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping Requirements	Reports Frequency
Visible Emissions Limit	Opacity	20%	Percentage (6 minutes average)	Method 9  Visible emissions inspection	Once during the first year of duration of the permit.  Every 14 days	Test results  Date and hour of inspections, results and any corrective action taken.	<u>Final Report:</u> no later than 60 days after the test.  Semiannual (See General Condition 14)
SO <sub>2</sub> Emission Limit	Sulfur content	0.5	Percentage per weight	Fuel analysis supplier certification	Daily with each fuel (purchase) receipt	Log with each receipt of the fuel sulfur content provided by the supplier	Monthly and Semiannual (See General Condition 14)
Fuel Consumption Limit	Diesel Fuel	105,120	Gallons per year	Consumption through flow meter	Monthly	Consumption log and purchase receipts	Semiannual (See General Condition 14)

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1. **Particulate Matter Emission Limit (PM):**

- a) The permittee shall not cause or allow the emission of particulate matter in excess of 0.3 lb/MMBtu of heat input from any equipment burning solid or liquid fuel. [Rule 406 of the RCAP]
- b) The permittee shall perform a performance test during the first year using Method 5, which appears under 40 CFR Part 60, Appendix A, in order to verify that the norm is complied with. [Rule 603 (a)(3) of the RCAP]
- c) The permittee shall submit to the EQB, 30 days before the test start date, a detailed sampling protocol that describes all the test equipment, procedures and quality assurance measures used. The protocol shall be specific for the test, facility, operational conditions and parameters that shall be measured. [Rule 106 (C) of the RCAP]
- d) The permittee shall submit a written notification indicating the sampling date, 15 days before the sampling, so the Board may appoint an observer. [Rule 106(D) of the RCAP]
- e) The permittee shall submit two copies of the sampling results report within 60 days after the tests. This report shall contain the information required under Rule 106(E) of the RCAP.

- f) During the test the source shall operate at full capacity or based on a representative performance of the affected facility when sampling; meaning that after demonstrating compliance with any applicable emission limit, the Board can restrict the operation of the source to the capacity reached during the performance tests. [Rule 106 (F) of the RCAP]
- g) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall keep records of all the required sampling data and support information for a period of 5 years from the date of the sampling, measurement, report or sampling application.

**2 Visible Emissions Limits (Opacity):**

- a) The permittee shall not exceed the opacity limit of 20% in a 6-minutes average for unit EU#7. However, the permittee shall be able to release to the atmosphere visible emissions with an opacity up to 60% for a period no greater than 4 minutes within any consecutive interval of 30 minutes. [Rule 403(A) of the RCAP]
- b) The permittee shall hire an independent opacity reader, certified by a school approved or endorsed by the EPA or the Board to perform an opacity reading on each stack/chimney of unit EU#7 during the first year of the permit duration using Method 9 described in Appendix A of 40 CFR Part 60. The corresponding boiler shall be operating when making the opacity readings.
  - 1. The permittee shall submit to the Board, at least 30 days prior to the opacity reading, a copy of the format to be used to record the visible emissions readings.
  - 2. The permittee shall notify in writing to the Board at least 15 days before the initial sampling using Method 9, to allow the Board the opportunity to appoint an observer present. [Rule 106(D) of the RCAP]
  - 3. The permittee shall submit two copies of the initial sampling results report using Method 9 within 60 days after the tests. This report shall contain the information required under Rule 106(E) of the RCAP. The requirements of the subsequent readings shall be submitted in the readings summary that shall be ratified with the semiannual report required in this permit.
  - 4. The Board reserves the right to require additional visible emissions readings in order to demonstrate compliance with the opacity limit.

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**3. Sulfur Content Limits (SO<sub>2</sub>):**

- a) The permittee shall not burn or allow the use of any distilled fuel No. 2 (Diesel) with a sulfur content exceeding 0.5% per weight in unit EU#7. [PFE-03-78-0401-0046-II-C]
- b) The permittee shall submit a monthly report indicating on a daily basis the sulfur content (percentage per weight) in the burnt fuel and the amount of fuel burned in unit EU#7. This report shall be submitted to the Board to the attention of the Data Validation and Mathematical Modeling Division Chief no later than the next 15 days of the following month for which the report is presented and shall be available at all times in the facility for review by the Board or EPA.
- c) The permittee shall retain a copy of the certification from the fuel supplier in which the sulfur content is indicated to demonstrate compliance with the requirement to keep a daily log of the sulfur content in the diesel.
- d) The permittee shall submit each year, along with the annual compliance certification, a copy of the reports for that year indicating the sulfur content in the burnt fuel as a percentage per weight. It should submit as well sampling reports, which shall include the following:
- (1) sampling date, place (as defined in the permit) and hour;
  - (2) analysis date;
  - (3) company or entity that performed the analysis;
  - (4) methods or techniques employed;
  - (5) results of such analysis; and
  - (6) operation conditions when sampling.
- e) The permittee shall submit, with each semiannual report and annual compliance certification, a summary of reports indicating the sulfur content in the boiler in monthly and annual terms. This report shall be sent along with the semiannual report required under condition III.14 of this permit.
- f) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall keep records of all the required sampling data and support information for a period of 5 years from the

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date of the sample, measurement, report or sampling application. This includes a record of the monthly reports of fuel consumption and sulfur content of the fuel burned.

**4. Fuel Consumption Limit:**

- a) The permittee shall not exceed the total consumption limit for distilled fuel No. 2 (Diesel) of **105,120 gallons** during any 12 months consecutive period for boiler EU#7. The fuel consumption for any consecutive period of 12 months shall be calculated by adding the monthly consumption hours of the unit to the total fuel of the unit for the previous 11 months. [PFE-03-78-0401-0046-II-C]
- b) The permittee shall operate and keep a fuel flow meter at the entrance of the boiler. The permittee shall calibrate the flow meters every six months and keep a log with the calibration date and results. These files shall be accessible and available for the review of the technical personnel of the Board.
- c) The permittee shall maintain monthly logs where the monthly fuel consumption for unit EU#7 is indicated. These files shall be accessible and available for the review of the technical personnel of the Board.
- d) The permittee shall submit, with each semiannual report and annual compliance certification, a summary of the annual reports indicating the fuel consumption of the boiler in monthly and annual terms. This report shall be sent along with the semiannual report required under condition III.14 of this permit.
- e) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall keep records of all the required sampling data and support information for a period of five (5) years from the date of the sample, measurement, report or sampling application. This includes a record of the monthly reports of fuel consumption and sulfur content of the fuel burned.

**5. Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60 Subpart Dc)**

- a) The 546 hp boiler (EU#7) is affected by 40 CFR Part 60, Subpart Dc and the general provisions of Subpart A. It shall operate in compliance with the applicable requirements of this regulation.
- b) According to Section 60.42c(h) of 40 CFR, the sulfur content limit in the fuel for the 546 hp boiler shall be determined based on a certification from the fuel supplier. The certification shall comply with the requirements under Section 60.48c(f) of 40 CFR, as applicable.

- c) According to Section 60.42c(g) and (h) of 40 CFR, the initial performance test for the 546 hp boiler shall consist of a certification from the fuel supplier.
- d) A certification from the fuel supplier shall be submitted for the diesel burnt in the 546 hp boiler. In order to show the sulfur content in the fuel does not exceeds 0.5% per weight (sections 60.42c(d) or (h) and 60.44c(g) and (h) of 40 CFR, as applicable). The certification shall be obtained every time fuel is received by the facility. This will accompany periodically the monthly report, required under condition V(C)(3)(c) of this permit, as fuel is received by the facility. The certification shall correspond to the report period and shall include the following information: [section 60.48c(f)(1) of 40 CFR]
- (1) The name of the fuel supplier.
  - (2) A statement from the fuel supplier indicating the fuel meets the distilled fuel specifications of section 60.41c of 40 CFR, and
  - (3) The sulfur content or the maximum sulfur content of the fuel.
- e) According to section 60.46c(d)(2) of 40 CFR, an alternate procedure to determine the sulfur content in the fuel is taking samples of the fuel from the storage tank after it is filled, but before it is used. The owner or operator of the facility shall analyze the fuel sample to determine its sulfur content. If a partially empty fuel tank is filled again, a new fuel sample and analysis is required. The analysis results of the fuel taken after it is received shall be used as a daily value in the calculation of the rolling average of 30 days until fuel is received again. If the fuel analysis shows that the sulfur content is greater than 0.5% per weight, the owner or operator shall ensure that the sulfur content of the later fuel deliveries is sufficiently low to make the rolling average of 30 days be 0.5% per weight or less.
- f) In terms of the 546 hp boiler, the facility shall meet the following maintenance and recordkeeping requirements related to the sulfur oxide (SO<sub>2</sub>) emission and the sulfur content in the fuel: [40 CFR 60.48c]
- (1) Calendar dates covered in the report period.
  - (2) The 30 days average ratio of the SO<sub>2</sub> (nj/J or lb/MMBtu), or the 30 days sulfur content average (percentage per weight) calculated during the report period, ending with the last 30 days period, the reasons for non-compliance with the emission standards, and a description of the corrective actions taken.

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- (3) Average percentage of the ratio of SO<sub>2</sub> potential emissions for periods of 30 days.
- (4) Identify the design capacity of the units and the fuel types used.
- (5) If certifications of the sulfur content in the fuel are used, provided by the supplier, to show compliance with the sulfur content limit in the fuel, the permittee shall meet the requirements of Section 60.48c(f) of the 40CFR. The report shall include a signed certification by the owner or operator of the facility stating that the record of the certifications is representative of all the fuel burnt during the report period.
- (6) The permittee shall record and keep the records of the amount of each fuel burnt during each day of operation. In the alternative, the procedures established under Section 60.48c(g)(2) or (3) of 40 CFR will be used.
- (7) The permittee shall calculate the annual capacity factor which the owner or operator anticipates to operate based on all the burnt fuels and based on each burnt fuel individually. [Section 60.48c(a)(3) of 40 CFR]
- (8) As a requirement of the Board, the reports shall be kept in the facility for a minimum period of five years.
- (9) The reports required by the 40 CFR Part 60, Subpart Dc shall be submitted to the Environmental Protection Agency (EPA) every six months with a copy to the Board.

6. **National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial-Commercial-Institutional Boilers and Process Heaters (40 CFR Part 63 Subpart DDDDD)**

- a) The 546 hp boiler (EU#7) is affected by the applicable requirements of the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial-Commercial-Institutional Boilers and Process Heaters under 40 CFR Part 63 Subpart DDDDD. The affected unit shall demonstrate compliance with the applicable requirements under this regulation on or before **January 31, 2016**, or on the date specified in the extension or extensions for compliance granted by the Environmental Quality Board and the Federal Environmental Protection Agency pursuant to 40 CFR §63.6(i).

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- b) According to Section 63.7500(a)(1) of 40 CFR, the permittee shall comply with each applicable emission limit and each work practice standard specified under items 14 and 17 of Table 2 of 40 CFR Part 63 Subpart DDDDD for the emission unit EU#7. The permittee shall not exceed the following emission limits applicable to this unit, except during the startup and shutdown of operations:
- (1) Hydrochloric acid (HCl):
    - (i) 0.0011 lb/MMBtu heat input or
    - (ii) 0.0014 lb/MMBtu steam output or 0.016 lb/MWh (alternative limits based on the output)
  - (2) Mercury (Hg):
    - (i) 0.000002 lb/MMBtu heat input or
    - (ii) 0.0000025 lb/MMBtu steam output or 0.000028 lb/MWh (alternative limits based on the output)
  - (3) Carbon Monoxide (CO):
    - (i) 130 ppm per volume on dry base corrected at 3% of oxygen, three runs average based on the chimney test, or
    - (ii) 0.13 lb/MMBtu steam output or 1.4 lb/MWh; three runs average (alternative limits based on the output)
  - (4) Total Filterable Matter (PM or TSM):
    - (i) 0.27 lb/MMBtu heat input or 0.00086 lb/MMBtu heat input or
    - (ii) 0.33 lb/MMBtu steam output or 3.8 lb/MWh; or 0.0011 lb/MMBtu steam output or 0.012 lb/MWh (alternative limits based on the output)
- c) Emission unit EU#7 shall be subject to the work practices requirements established under items 3, 4, 5 and 6 from Table 3 to 40 CFR Part 63 Subpart DDDDD.
- (1) An initial *tune-up* of emission unit EU#7 shall be performed as specified under section 63.7540 of 40 CFR. [Item 3 of Table 3 to Subpart DDDDD of Part 63 of 40 CFR]

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- (2) The emission unit EU#7, shall have a one-time energy assessment for the boiler made by a qualified evaluator. A one-time energy assessment completed by January 1, 2008 or after complying or amending to comply with the energy assessment requirements of Table 3 to Subpart DDDDD of 40 CFR satisfies this requirement. A facility operating under an energy management program established through energy management systems compatible with ISO 50001 including the affected unit, also satisfies the energy assessment requirement. The energy assessment shall include the elements listed under section 63.7575 and item 4 of Table 4 to Subpart DDDDD of 40 CFR. [Item 4 of Table 3 of 40 CFR Part 63 Subpart DDDDD]
- (3) Shall operate all the Continuous Monitoring Systems during the startup and shutdown periods of the unit. [Items 5 and 6 from Table 3 of 40 CFR Part 63 Subpart DDDDD]
- (4) According to items 5 and 6 from Table 3 of 40 CFR Part 63 Subpart DDDDD of, during the startup and shutdown periods of unit EU#7:
  - (a) The permittee shall collect data following the specifications on section 63.7535(b) of 40 CFR.
  - (b) The facility shall keep a file of the data obtained during these periods and submit the reports corresponding to these startup and shutdown activities pursuant the specifications under section 63.7555 of 40 CFR.
- d) Emission unit EU#7 shall be subject to the applicable **operating limits** established under items 7 and 8 from Table 4 to Subpart DDDDD of Part 63 of 40 CFR. [Section 63.7500(a)(2) of 40 CFR]
- e) The permittee shall comply with the applicable **general requirements** as described under section 63.7505 of 40 CFR.
- f) The permittee shall comply with the applicable initial **compliance requirements** as specified under section 63.7510 of 40 CFR.
- g) The permittee shall comply with the applicable **initial compliance requirements** for emissions limits, fuel specifications and work practices as specified under section 63.7530 of 40 CFR.

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- h) The **continuous compliance** shall be demonstrated as applicable and as specified under sections 63.7515, 63.7520, 63.7521, 63.7522, 63.7525, 63.7530, 63.7535, 63.7540 and 63.7541 of 40 CFR.
- i) The permittee shall comply with the **notifications** and the applicable **reports** as specified under sections 63.7545, 63.7550, 63.7555 and 63.7560 of 40 CFR.
- j) The permittee shall comply with the applicable **General Provisions** under sections 63.1 to 63.15, these are included in Table 10 to Subpart DDDDD of 40 CFR. [Section 63.7565 of 40 CFR]

**D. Internal Combustion Engines: EU#8 Emergency Electricity Generator (500 HP), EU#9 Emergency Electricity Generator (402 HP) and Fire-Fighting Pump (99 HP):**

The following table includes the summary of the applicable state requirements, as well as the test methods.

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping Requirements	Reports Frequency
Visible Emissions Limits	Opacity	20%	Percentage (6 minutes average)	Method 9	Once during the first year of duration of the permit.	Test results	Within 60 days from performing the test
SO <sub>2</sub> Emissions Limits	Sulfur content	0.5	Percentage per weight	Fuel analysis supplier certification	With each fuel (purchase) receipt	Log with each receipt of the fuel sulfur content provided by the supplier	Semiannual (See General Condition 14)
Fuel Consumption Limit	Diesel Fuel						
	EU#8	12,750	gallons/year	Consumption through flow meter	Monthly	Consumption log and purchase receipts	Semiannual (See General Condition 14)
	EU#9	11,250	gallons/year		Monthly		
EU#10	12,500	gallons/year		Monthly			

**1. Visible Emissions Limits (Opacity):**

- a) The permittee shall not exceed the opacity limit of 20% in a 6-minutes average for the unit. However, the permittee shall be able to release to the atmosphere visible

emissions with an opacity up to 60% for a period no greater than 4 minutes within any consecutive interval of 30 minutes. [Rule 403(A) of the RCAP]

- b) The permittee shall hire an independent opacity reader, certified by a school approved or endorsed by the EPA or the Board to perform an opacity reading on each stack of the internal combustion equipment herein approved during the first year of the permit duration using Method 9 described in Appendix A of 40 CFR Part 60. The applicable internal combustion equipment must be operating when the opacity readings are made.
- c) The permittee shall submit to the Board, at least thirty (30) days prior to the opacity reading, a copy of the format to be used to record the visible emissions readings.
- d) Notify in writing to the Board at least 15 days before the initial sampling using Method 9, to allow the Board the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- e) Submit two copies of the initial sampling results report using Method 9 within 60 days after the tests. This report shall contain the information required under Rule 106(E) of the RCAP.
- f) The Board reserves the right to require additional visible emissions readings in order to demonstrate compliance with the opacity limit.

 **2. Sulfur Content Limits (SO<sub>2</sub>):**

- a) The permittee shall not burn or allow the use of any No. 2 distilled fuel (Diesel) with a sulfur content exceeding 0.5% per weight in units EU #8, EU#9 and EU#10. [PFE-LC-03-78-1294-0090-I-O]
- b) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall keep records of all the required sampling data and support information for a period of five (5) years from the date of the sample, measurement, report or sampling application. This includes a record of the monthly reports of fuel consumption and sulfur content of the fuel burned.
- c) The permittee shall submit a monthly report indicating on a daily basis the sulfur content (percentage per weight) in the burnt fuel and the amount of fuel burned in **units EU#8, EU#9 and EU#10**. This report shall be submitted to the Board to the attention of the Data Validation and Mathematical Modeling Division Chief no later than the next 15 days of the following month for which the report is presented and shall be available at all times in the facility for review by the Board or EPA.

- d) The permittee shall retain a copy of the certification from the fuel supplier in which the sulfur content is indicated to demonstrate compliance with the requirement to keep a daily log of the sulfur content in the fuel.
- e) The permittee shall ratify, along with the semiannual reports required under condition III.14 and the annual compliance certification, a copy of the reports for that year including a summary of the sulfur content in the burnt fuel as a percentage per weight. It should ratify as well sampling reports, which shall include the following:
  - (1) sampling date, place (as defined in the permit) and hour;
  - (2) analysis date;
  - (3) company or entity that performed the analysis;
  - (4) methods or techniques employed;
  - (5) results of such analysis; and
  - (6) operation conditions when sampling.

  
 **3. Fuel Consumption Limits:**

- a) The permittee shall not exceed the total consumption limit for No. 2 distilled fuel (Diesel) of **12,750, 11,250 and 12,500 (gallons)** during any 12 consecutive months period for units EU#8, EU#9 and EU#10, respectively. The hours of operation for any period of 12 consecutive months shall be calculated by adding the monthly consumption hours of the unit to the total fuel of the unit for the previous 11 months. [PFE-LC-03-78-1294-0090-I-O]
- b) The permittee shall operate and keep a fuel flow meter at the entrance of the internal combustion equipment within the first 90 days after the permit effective date. The permittee shall calibrate the flow meters every six months and keep a log with the calibration date and results. These files shall be accessible and available for the review of the technical personnel of the Board.
- c) The permittee shall maintain monthly logs where the daily fuel consumption for each engine in the emission units EU#8, EU#9 and EU#10 is indicated. These files shall be accessible and available for the review of the technical personnel of the Board.

- d) The permittee shall submit, with each semiannual report required under condition III.14 and the annual compliance certification, an annual summary of the logs indicating the internal combustion equipment fuel consumption in monthly and annual terms.

**National Emission Standards for Hazardous Atmospheric Pollutants for Reciprocal Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ)**

- a) The existing stationary internal combustion engines of the emission units EU#8, EU#9 and EU#10 are affected by the regulation described under 40 CFR, Part 63, Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP), as defined under section 63.6585(a) of 40 CFR, hence it must comply with all applicable requirements of these regulations on or before **May 3, 2013**.
- b) According to Table 2d to Subpart ZZZZ the permittee shall:
- (1) change the engine oil and filter every 500 hours of operation or annually, whichever occurs first;
    - a. The permittee shall have the option to use an oil analysis program as described in section 63.6625(i) of 40 CFR to extend the oil change requirement specified in Table 2d to Subpart ZZZZ.
  - (2) inspect the air filter every 1,000 hours of operation or annually, whichever occurs first, and replace as necessary; and
  - (3) inspect all the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- c) According to 40 CFR §63.6625, the permittee shall:
- (1) operate and maintain the engine and control equipment (if any) according to the written instructions of the manufacturer related to the emissions or develop its own maintenance plan which shall provide to the extent possible for the maintenance and operation of the engine consistently with good pollution control practices to minimize emissions.
  - (2) install a non-resettable hour meter, if it is not already present.

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- (3) minimize the engine idle time during startup and minimize the engine start time to the necessary period for the appropriate and safe charge of the engine, not to exceed 30 minutes.
- d) According to 40 CFR §63.6605, shall operate the engine in order to minimize emissions.
- e) According to 40 CFR §63.6640, shall operate and demonstrate compliance with Management and Work Practices contained in Table 6 of the Subpart.
- f) To maintain the emergency engine category, it shall comply with the use and operating limitations contained in 40 CFR §63.6640(f); each engine is authorized to operate for a maximum of 100 hours per calendar year for any of the combination of the purposes specified in 40 CFR §63.6640(f)(2)(i) through (iii), and up to 50 hours of operation in non-emergency situations, as specified in 40 CFR 63.6640(f)(4). The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in section 63.6640(f)(2) of the 40 CFR, whereas these 100 hours of operation shall be counted as part of the consumption limit for each. For any engine operation that does not meet these requirements, the engine shall not be considered as an emergency one under this Subpart and it shall comply with all requirements of the non-emergency engines.
- g) The permittee shall keep all applicable logs in conformity with 40 CFR §63.6655(f).
- (1) The permittee shall keep a log of the hours of operation of the engine as recorded in the non-resettable hour meter.
- (2) The permittee shall document the hours used for emergency operation, including what qualified the operation as an emergency and how many hours the engine was operated in non-emergency situations.
- (3) If the engine is used for the purposes specified under 40 CFR §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), a log of the emergency situation, date and operation startup and shutdown times shall be kept for these purposes.
- h) The permittee shall comply with the **General Provisions** under sections 63.1 to 63.15 as applicable, these are included in Table 8 of Subpart ZZZZ of 40 CFR.

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**Section VI - Insignificant Emission Units**

**B. Sartorius Stedim Filters, Inc.** provided the following list of insignificant activities for a better understanding of its operations and the equipment distribution. Since there is no requirement to keep this list updated, the activities may have changed since the moment it was submitted, nonetheless **Sartorius Stedim Filters, Inc.** shall include the list of insignificant activities that are exempt due to size and production rate. Only exempt activities and those emission sources that require and have a construction permit under Rule 203 of the RCAP are included. The following activities shall be considered insignificant provided that **Sartorius Stedim Filters, Inc.** meets the descriptions indicated below.

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Emission Unit Identification	Capacity/ Amount	Description (Exemption basis)
A diesel fuel storage tank	1,000 gallons	Appendix B(3)(xi) of the RCAP – Tanks for gasoline, diesel and kerosene storage with a capacity of less than 10,000 gallons.
A diesel fuel storage tank	500 gallons	Appendix B(3)(xi) of the RCAP – Tanks for gasoline, diesel and kerosene storage with a capacity of less than 10,000 gallons.
A diesel fuel storage tank	150 gallons	Appendix B(3)(xi) of the RCAP – Tanks above ground level for gasoline, diesel and kerosene storage with a capacity of less than 10,000 gallons.
Steam vents and leaks from boilers and steam distribution systems.	-	Appendix B(3)(xxxv) of the RCAP
Pilot plants and laboratories in charge of research development and quality control activities.	-	Appendix B(3)(ii)(M) of the RCAP

**Section VII - Permit Shield**

A. According to Rule 603(D) of the RCAP, compliance with the conditions of the permit shall be deemed as the compliance with any applicable requirement to the date of issuance, provided that the requirement is specifically identified in the permit. Similarly, it is considered in compliance with any requirement specifically identified as "Non Applicable" in the permit.

**Non Applicable Requirements**

1. EU#1 and EU#2: Methylene Chloride (MeCl<sub>2</sub>) and Ethanol (EtOH) Storage Tanks, respectively:

Non Applicable Requirements		
State	Federal	Reason
-	Standards of Performance for Volatile Organic Liquid Storage Vessels (40 CFR, Part 60, Subpart Kb), except section 60.116b, paragraph (b).	Capacity of the tank is less than 75 m <sup>3</sup> [Section 110 b, paragraph (a)].
-	National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks (40 CFR Part 63 Subpart H)	The source is not subject to the provisions of a specific subpart in Part 63 that refers to Subpart H. [Section. 63.160, paragraph (a)]
-	National Emission Standards for Equipment Leaks (40 CFR, Part 61, Subpart V)	MeCl <sub>2</sub> and EtOH do not meet the definition of volatile hazardous air pollutant (VHAP) of Section 61.241 because these are not regulated under Part 61 and a standard for the detection of leakages of this substances has not been published [Section 61.240, paragraph (a)]
Rule 417 of the RCAP	-	Capacity of the tank is not greater than 40 m <sup>3</sup> [Rule 417 of the RCAP].

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**2. EU#3, EU#4, EU#5, and EU#6: Mixing Room, Molding Room, Recovery Unit and Fugitive Emissions Emergency of the Recovery Unit, respectively**

Non Applicable Requirements		
State	Federal	Reason
-	National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks (40 CFR Part 63 Subpart H)	The source is not subject to the provisions of a specific subpart in Part 63 that refers to Subpart H. [Section. 63.160, paragraph (a)]
-	National Emission Standards for Equipment Leaks (40 CFR, Part 61, Subpart V)	The substances used in this source do not meet the definition of volatile hazardous air pollutant (VHAP) of Section 61.241 because these are not regulated under Part 61 and a standard for the detection of leakages of this substances has not been published [Section 61.240, paragraph (a)]

**3. EU#8, EU#9 and EU#10: Emergency Electricity Generator (500 hp), Emergency Electricity Generator (402 hp) and Fire-Fighting Pump (99 hp)**

Non Applicable Requirements		
State	Federal	Reason
-	<i>Standards of Performance for Stationary Compression Ignition Internal Combustion Engines</i> (40 CFR Part 60 Subpart IIII).	Not applicable to internal combustion units, since they (CI ICE) were built on or before July 11, 2005 and the Fire-Fighting Pump before July 1, 2006.  Not applicable to the emission units identified as EU#8, EU#9 and EU#10, because they were built on 2000, 1987, 1983 respectively.
Rule 406 of the RCAP	-	The internal combustion engines included in the permit do not meet the definition of Fuel-Burning Equipment from Rule 102 of the RCAP, since they do not produce power through internal conduction of heat.

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SARTORIUS STEDIM FILTERS, INC.  
YAUCO, PUERTO RICO  
PFE-TV-3569-78-0907-0861  
PAGE 39 OF 43

**Section VIII - Permit Approval**

By virtue of the powers vested in the Environmental Quality Board by the Environmental Public Policy Law, Law No. 416 of September 22, 2004, as amended, and after verifying the administrative file and compliance with the Uniform Administrative Procedure Law, Law No. 170 of August 12, 1988, as amended, the Federal Clean Air Act, Environmental Public Policy Law and the Regulation for the Control of Atmospheric Pollution of Puerto Rico, the Environmental Quality Board approves the permit subject to the terms and conditions therein expressed.

In San Juan, Puerto Rico, June 24, 2016.

**ENVIRONMENTAL QUALITY BOARD**

  
Suzette M. Meléndez Colón  
Vice President

  
Rebeca Acosta Pérez  
Associate Member

  
Weldin F. Ortiz Franco  
President

SARTORIUS STEDIM FILTERS, INC.  
YAUCO, PUERTO RICO  
PFE-TV-3569-78-0907-0861  
PAGE 40 OF 43

**APPENDICES**

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## Appendix I - Definitions and Abbreviations

### A. Definitions:

1. Administrator - Refers to the Administrator of the Federal Environmental Protection Agency and its authorized representative or the Administrator of a State Agency for Air Pollution Control.
2. Law - Federal Clean Air Act, as amended, 42 U.S.7401, et seq.
3. Responsible Officer - See the definition of Responsible Officer as established under the Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board (1995).
4. Regulation - Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board.
5. Permittee - Person and entity to which the Environmental Quality Board of Puerto Rico issues an Operation Permit for a Covered Emission Source under Title V.
6. Title V - Title V of the Federal Clean Air Act (42 U.S.C. 7661).

### C. Abbreviations:

EPA	Environmental Protection Agency
AP-42	Compilation of Air Pollutant Emission Factors
Btu	British thermal unit
HAP	Hazardous Air Pollutants
CFR	CFR-United States Code of Federal Regulations
CO	Carbon Monoxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
VOC	Volatile Organic Compounds

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EtOH	Ethanol
GHGs	Greenhouse Gases
HCl	Hydrochloric Acid
HF	Hydrofluoric Acid
HP	Horsepower
EQB	Environmental Quality Board of Puerto Rico
Lbs	Pounds
MeCl <sub>2</sub>	Methylene Chloride
MMBtu	Million Btu
MWh	Mega Watt-hour
NESHAP	National Emission Standards for Hazardous Air Pollutants
NAAQS	National Ambient Air Quality Standards
NSPS	New Source Performance Standards
NO <sub>x</sub>	Nitrogen Oxides
Pb	Lead
PM	Particulate matter
PM <sub>10</sub>	Particulate matter with a particle which diameter has an aerodynamic mass size equal to or less than (10) microns
RCAP	Environmental Quality Board - Regulation for the Control of Atmospheric Pollution
RICE	Reciprocating Internal Combustion Engine

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RMP	Risk Management Plan
SIC	Standard Industrial Classification
SO <sub>x</sub>	Sulfur Oxide
SO <sub>2</sub>	Sulfur Dioxide

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**STATEMENT OF BASIS - TITLE V OPERATING PERMIT RENEWAL  
SARTORIUS STEDIM FILTERS, INC.  
YAUCO, PUERTO RICO  
PFE-TV-3569-78-0907-0861**

The Environmental Quality Board (EQB) is issuing a Title V permit in conformity with Title 40 of the Code of Federal Regulations (40 CFR), Part 70 and with Part VI of the Regulation for Air Pollution Control (RCAP) for Sartorius Stedim Filters, Inc. The facility is located at the intersection of State Road PR-128 and State Road PR-376 of the municipality of Yauco. The EQB received a renewal application for Title V permit on September 13, 2007.

Sartorius Stedim Filters, Inc. manufactures cellulose acetate membrane filters. The pulverized cellulose is mixed with the solvents; methylene chloride ( $\text{MeCl}_2$ ) and ethanol ( $\text{EtOH}$ ). The main emission units related to the installation process are a storage tank of  $\text{MeCl}_2$ , a storage tank of  $\text{EtOH}$ , a mixing room with two mixing tanks, a molding room, a recovery unit, fugitive emissions in case of emergencies in the recovery unit, a steam boiler, two emergency electricity generators and a fire pump. Sartorius Stedim Filters, Inc. is a major source of hazardous air pollutants (HAP's) because it has the potential to emit more than 10 tons of  $\text{MeCl}_2$  per year, which is a hazardous air pollutant listed on Section 112(b) of the federal Clean Air Act. The facility is required to operate under the Title V operating permit program because it is a major source of hazardous air pollutants.

The allowable emissions authorized under this permit are mentioned in the table below. The source shall annually certify that its actual emissions do not exceed the allowable limits. According to the EQB Resolution RI-06-02<sup>1</sup>, the emissions calculations shall be based on the actual emissions of the facility, but calculations based on the allowable emissions of the facility shall be accepted. If Sartorius Stedim Filters, Inc. decides to make the calculations based on the allowable emissions, it shall pay the same charge per ton as the sources that decides to make the calculations based on actual emissions. The facility is a minor source of emissions of criteria pollutants and greenhouse gases expressed as  $\text{CO}_2\text{e}$ .

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<sup>1</sup> Resolution about the Payment Procedure for Title V Operating Charges and Title V Permit Renewal Charges, issued on March 20, 2006.

Pollutant	Allowable Emission (tons/yr)
PM <sub>10</sub>	0.655
SO <sub>2</sub>	4.296
NO <sub>x</sub>	8.808
VOC	51.924
CO	1.930
Pb	2.102x10 <sup>-5</sup>
CO <sub>2</sub> e	1,598.69
CAP (Combustion)	0.1188
CAP (MeCl <sub>2</sub> )	127.42

Following there is a summary of the emission units, the applicable and non-applicable requirements, and the fundamental reasons for the applicable and non-applicable requirements.

**EU#1 and EU#2: Storage Tanks for MeCl<sub>2</sub> and EtOH, respectively:** These emission units consist of two storage tanks that contain methylene chloride and ethanol. Each has a capacity of 10,568 gallons of liquid storage. These are not affected by the Standards of Performance for Volatile Organic Liquid Storage Vessels included in the 40 CFR Part 60, Subpart Kb, because the capacity of the tanks is less than 73 m<sup>3</sup> [40 CFR §60.110b]. This unit is not affected by the National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks in Sources with Fugitive Emission included in the 40 CFR, Part 63, Subpart H, because the source is not subject to the provisions of paragraph (a) of this Subpart H [40 CFR §63.160 (a)]. The storage tanks mentioned above are not affected by the National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks in Sources with Fugitive Emission included in the 40 CFR, Part 61, Subpart V, because the stored substances (MeCl<sub>2</sub> and EtOH) do not meet the definition of Volatile Hazardous Air Pollutant (VHAP), are not regulated in Part 61 of the 40 CFR and no standard for leak detection of these substances has been published [40 CFR §63.240 (a)].

**EU#3, EU#4, EU#5, and EU#6: A Mixing Room, a Molding Room, a Recovery Unit and Emergency Fugitive Emissions of the Recovery Unit, respectively:** These units consist of a mixing room (EU#3) that is composed of two mixing tanks, each one with a storage capacity of 734 gal (2.8 m<sup>3</sup>). The material stored in the tanks is described next; tank #1 ethanol (EtOH) and the other one contains methylene chloride (MeCl<sub>2</sub>).

The emission unit EU#4 consists of a molding room with a molding area of 3,000 ft<sup>2</sup> with a membrane/year capacity of 480,000 m<sup>2</sup>. The emission unit EU#5 consists of a recovery unit. This unit has an Activated Carbon Adsorption Unit with efficiency of 96.45% for methylene chloride (MeCl<sub>2</sub>) and 99.98% for ethanol (EtOH); this is used during the manufacturing of cellulose acetate membranes in the molding room. According to the submitted application in this emission unit 122,598 and 90,768 pounds of MeCl<sub>2</sub> and EtOH, respectively, are recovered annually.

The emission unit EU#6 consists of fugitive emissions for emergency events in the recovery unit. According to the submitted application it shall only be used in emergency cases. This emission units are not affected by the National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks in Sources with Fugitive Emission included in the 40 CFR, Part 63, Subpart H, because the source is not subject to the provisions of paragraph (a) of this Subpart H [40 CFR §63.160(a)]. The above mentioned emission units are not affected neither by the National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks in Sources with Fugitive Emission included in the 40 CFR, Part 61, Subpart V, because the stored substances (MeCl<sub>2</sub> and EtOH) do not meet the definition of volatile hazardous air pollutant (VHAP), are not regulated in Part 61 of the 40 CFR and no standard for leak detection of these substances has been published [40 CFR §63.240 (a)].

The emission unit EU#7 is a boiler of 546 hp (existing). This unit consists of an external combustion steam boiler type of equipment for continuous use, which capacity is of 546 hp and consumes diesel fuel with a sulfur content per weight of 0.5% at a consumption rate of 12.0 gal/hr. In this unit the nitrogen used is heated to regenerate the carbon adsorption unit.

- The boiler is not affected by the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial and Institutional Boilers located in Area Sources included in the 40 CFR Part 63, Subpart JJJJJ, because this boiler is located in a Major Source of Hazardous Air Pollutants (HAP's) and not in an Area Source.
- However, the boiler is affected by the New Sources Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units, included in the 40 CFR Part 60, Subpart Dc, because the boiler was built after June 9, 1989 and has maximum design of heat input greater than 2.9 MW (10 MMBtu/hr).

- The boiler is also affected by the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial and Institutional Boilers and Steamers included in the 40 CFR Part 63, Subpart DDDDD, because this boiler is located in a Major Source of Hazardous Air Pollutants (HAP's) [40 CFR §63.7490], and because the boiler is an existing one built before May 20, 2011, which compliance date shall be before March 21, 2014 [40 CFR §63.7500].

The emissions units EU#8 and EU#9 are two emergency electricity generators with capacities of 500 and 402 h p , respectively (existing): These units consist of two generators. Although 40 CFR Part 63 Subpart ZZZZ does not limit the yearly operating hours in an emergency, the PREQB construction permit limit yearly consumption for these units. The generators are not affected by the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (NSPS) included in the 40 CFR, Part 60, Subpart IIII, because the engines were not built, modified nor reconstructed after July 11, 2005. Nonetheless, the generators are affected by the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocal Internal Combustion Engines (NESHAP) included in the 40 CFR, Part 63, Subpart ZZZZ (RICE), because the internal combustion engines were constructed before July 12, 2006.

The emission unit EU#10 is a fire pump of 99 hp (existing): This emission unit consists of an engine for the water pump of the fire prevention system. Although 40 CFR Part 63 Subpart ZZZZ does not limit the yearly operating hours in an emergency, the PREQB construction permit limit yearly consumption for this unit. The above mentioned combustion equipment is not affected by the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (NSPS) included in the 40 CFR, Part 60, Subpart IIII, because the equipment was constructed or installed in the facility before July 1, 2006. However, the water pump engine of the fire prevention system is affected by the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocal Internal Combustion Engines (NESHAP) included in the 40 CFR, Part 63, Subpart ZZZZ (RICE), because the internal combustion engine was constructed or installed in the facility before July 12, 2006. All the applicable requirements of Subpart ZZZZ, Part 63 of 40 CFR were cited in the permit.

The following units are subject to the following limitations under the RCAP:

- EU#1 and EU#2, EU#3, EU#4 and EU#6:

- VOC Emission Limit: In conformity with Rule 419 of the RCAP, the permittee shall not allow the emission of more than 3 pounds of volatile organic compounds in any period of one hour, or more than 15 pounds per day from any item, machine, equipment or any other artifact without having an acceptable control system, a program or mechanism for the reduction and control of emissions or both, as approved or required by the Board. The permittee shall provide an acceptable control system for the units or establish a program for the prevention and reduction of emissions no later than 180 days after the approval date of the permit.
- EU#7, EU#8, EU#9 and EU#10:
  - Visible emissions limits (opacity): As established by Rule 403 of the RCAP, the units shall not discharge visible emissions of an opacity greater than 20% in a 6 minutes average. However, one person shall be able to emit from a stack, visible emissions with an opacity up to 60% for a period no greater than four minutes within any consecutive interval of 30 minutes. The compliance with the visible emission limits shall be determined through the test methods of Rule 106.
  - Limit of sulfur content in the fuel (SO<sub>2</sub>): Rule 410 of the RCAP establishes that no person shall burn or allow the use, in any type of fuel combustion equipment which construction commenced after the effective date of this Rule, of any fuel with a sulfur percentage per weight exceeding 2.5% provided that it does not exceed the National Ambient Air Quality Standards (NAAQS). The permit requires the sulfur content to be monitored daily and reported to the EQB monthly. However, the limit for all the combustion equipment was established at 0.5% per weight according to its construction permits and applicable federal regulations.

According to Appendix B of the RCAP, **Sartorius Stedim Filters, Inc.** provided a list of insignificant activities; three diesel fuel storage tanks of 1,000, 500 and 150 gallons, vents for steam and leaks from the boilers, steam distribution systems, pilot plants, research development labs and quality control activities.

The EQB found that the Title V operating permit for **Sartorius Stedim Filters, Inc.** fulfills the requirements of Part VI of the RCAP.

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