

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



Permit Number:	PFE-TV-2834-09-0696-0002
Permit Application Received:	June 24, 1996, December 30, 2002 and November 14, 2003
Issue and/or Effectiveness Date:	September 30, 2006 ¹
Expiration Date:	September 30, 2011

In accordance with the provisions of Part VI of the Regulations for the Control of Atmospheric Pollution (RCAP) and the Code of Federal Regulations, Title 40, Part 70

**BRISTOL-MYERS SQUIBB MANUFACTURING COMPANY
BARCELONETA, PUERTO RICO**

hereinafter referred to as “the permittee” or **BMSMC-Barceloneta**, is authorized to operate a stationary source of air pollutants consisting of the emission units and conditions described in this permit. Until such time as this permit expires, is modified or revoked, the permittee is allowed to discharge air pollutants from those processes and activities directly related to or associated with air pollutant sources in accordance with the requirements, limitations and conditions of this permit.

The conditions in this permit are federally and state enforceable. Requirements that are only state enforceable are identified as such in the permit. A copy of this permit shall be kept on-site at the above-mentioned facility at all times.

¹ The conditions marked with asterisks were revised or added by means of a reconsideration process. Their effective date will September 10, 2007.

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Section I – General Information

1. Facility Information

Company Name: **Bristol-Myers Squibb Manufacturing Co. –Barceloneta Operations**

Postal Address: P.O. Box 657

City: Barceloneta State: PR Zip Code: 00617

Facility Physical Address: Road Num. 2, Km. 56.4, Barceloneta, PR.

Responsible Officer: Pedro Ortiz
Vice President and General Manager

Telephone: (787) 846-3800 Fax: (787) 846-7852

Contact Person: Rafael Alcalá
Environmental, Health & Safety Manager

Telephone: (787) 623-5853 Fax: (787) 623-5852

Primary SIC Code: 2834

* 2. Process Description²

BMSMC-Barceloneta is a pharmaceutical manufacturing facility dedicated to the manufacture of pharmaceutical products by chemical synthesis processes and formulation operations for intermediates, final bulk and finish dosages of pharmaceutical products. Raw materials (active drug ingredients, excipients, solvents etc.) are dispensed in predetermined amounts for each batch of each process. The operating environment (chemical usage, formulation procedures, mixing and compounding, operating pressures, temperature, etc.) varies from process to process but is consistent for batches within a process. The raw materials are processed in various pieces of manufacturing equipment.

The manufacturing units include batch process sources where common manufacturing activities take place such as: filling, depressurizing, gas sweeping, heating, gas evolution, air drying, vacuum drying, and vacuum distillation. Control devices include thermal oxidizers, scrubbers, condensers, and dust collectors are used to manage facility emissions.

Storage tanks are used to store chemical materials used in pharmaceutical production. An industrial boiler fired on #2 fuel oil, provides supplemental steam to the plant during peak demand periods.

* ² This description does not establish applicable requirements.

BMSMC-Barceloneta substantially upgraded the air pollution control equipment to ensure that all its operations comply with the pharmaceutical production MACT (40 CFR Part 63 Subpart GGG). The air pollution control equipment consists of two thermal oxidizers (referred to as the Andersen and the Hirt), each with a dedicated wet scrubber. At any given time, one of the two thermal oxidizer units thermally destroys process waste gases to control VOC and HAPs emissions. The thermal oxidizers use residual oil #6 as a supplementary fuel. Nearly all process waste gases originating in the tank farms, batch processes, and solvent recovery areas are routed to the centralized air pollution control system. Thermal oxidizer exhaust flue gases are routed through waste heat boilers for steam generation and caustic scrubbers for emissions control (HCl, SO₂). Non-exempt wastewater streams generated as part of the pharmaceutical production processes are designated as affected wastewater for all MACT affected production operations. The facility currently has two sewer systems that manage MACT-affected wastewater, one for concentrated streams (from 1% to 5% HAPs) and another for dilute streams (less than 1% HAPs that do not qualify for the 5 ppm exemption). The concentrated solvent based waste streams are hard-piped and generally collected in “Strong Waste” tanks, containerized on-site and transported to an offsite treatment facility. The dilute wastewater streams are hard-piped and collected in storage tanks dedicated to each of the manufacturing buildings. From the wastewater collection tanks, the wastewater is transferred via an overhead piping system to an on-site treatment system consisting of two air strippers operating in parallel followed by two parallel sequencing batch reactors (SBRs) operating alternately. Other concentrated wastewater streams that typically contain 10% or more HAPs are hard piped and are generally collected in tanks and routed to an offsite treatment system. There are other wastewater streams that could be collected and be hardpiped internally for recover processes. Emissions from the air strippers are routed to the TOUs and controlled.

Diesel-fired stationary internal combustion engines provide energy in case of emergencies.

BMSMC-Barceloneta is subject to the Regulations for the Control of Atmospheric Pollution (RCAP); to the New Source Performance Standards (NSPS) for volatile organic liquid storage vessels for which construction, reconstruction, or modification commenced after July 23, 1984 (40 CFR Part 60 Subpart Kb) and for small vapor generation units (40 CFR Part 60 Subpart Dc) and to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Pharmaceuticals Production (40 CFR Part 63 Subpart GGG). The applicable requirements specific to all emission units are included in section V of this permit.

BMSMC-Barceloneta is a mayor source for atmospheric pollutants because it has the potential to emit more than 100 tons of NO_x and more than 25 tons of hazardous atmospheric pollutants.

The emission units are described in Section II of this permit.

Section II - Emission Units and Control Equipment

The emission units regulated by this permit are the following:

EMISSION UNIT	DESCRIPTION ³	CONTROL DEVICES ^a
EUTO1	<p>The emission unit represents the thermal oxidizer No. 1 (Hirt) installed in 1987 as an emission source that arises from the combustion of auxiliary equipment. EUTO1 operates as the primary VOC and HAP control equipment (CD01) for the facility, interchangeably with the unit EUTO2 (CD02). Typically, only one of the thermal oxidizers operates at the same time, with the second unit as backup.</p> <p>EUTO1 has a heat input capacity of 26.25 MMBtu/hr, using fuel oil no. 6 and propane for startup.</p> <p>SO₂, hydrogen halides and halogens are controlled by a scrubber (CD01S), as part of the unit.</p>	CD01S
EUTO2	<p>The emission unit represents the thermal oxidizer No. 2 (Andersen) installed in 1995 as an emission source that arises from the combustion of auxiliary equipment. EUTO2 operates as the primary VOC and HAP control equipment (CD02) for the facility, interchangeably with the unit EUTO2 (CD01). Typically, only one of the thermal oxidizers operates at the same time, with the second unit as backup.</p> <p>EUTO2 has a heat input capacity of 42 MMBtu/hr, using fuel oil no. 6 and propane for startup.</p> <p>SO₂, hydrogen halides and halogens are controlled by a scrubber (CD02S), as part of the unit.</p>	CD02S
EUBO1	<p>The emission unit represents Boiler No. 1 in BSMC-Barceloneta. The identification number of the boiler is 10-F-101. This 705 Hp boiler (heat input rating of 30.24 MMBtu/hr) was installed in 2001, replacing the oldest boiler, identified as 10-F-003. This boiler burns fuel oil #2 to produce supplementary steam during periods of peak demand to be utilized in the manufacture process on the facility. Propane firing capability is provided for startup. Boiler No. 1 is subject to the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60 Subpart Dc).</p> <p>The boiler burns 216 gallons per hour of fuel oil #2 whose sulfur oil shall not exceed 0.25 percent by weight.</p>	None

* ³ This description does not establish applicable requirements.

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EMISSION UNIT	DESCRIPTION³	CONTROL DEVICES^a
EUVO1	<p>Emission unit EUVO1 consists of all of the equipment used in pharmaceutical manufacturing at the facility that emits volatile organic compounds (VOC) that are not hazardous air pollutants. The equipment consists of, but is not necessarily limited to, process vessels, reactors, tanks, fugitive emission sources (valves, flanges, etc.), centrifuges, stills, process condensers and inline filters. This equipment is organized into process trains that are generally used together for production. However, processes are not necessarily restricted to any particular vessel or train of equipment for production. Furthermore, production of specific products is not necessarily confined to a specific building.</p> <p>VOC emissions are controlled by the thermal oxidizer units installed to facilitate compliance with the pharmaceutical production MACT. This equipment includes two thermal oxidizers, each with a dedicated scrubber. Typically, only one TOU operates at a time with the second unit maintained as a backup.</p>	CD01/CD01S, CD02/CD02S
EUTF1	<p>EUTF1 is the emission unit that represents the collective VOC solvent tanks that are not currently subject to NSPS for Storage Vessels (40 CFR 60 Subpart Kb). These tanks require no controls, other than conservation vents, with which they are equipped. These tanks provide storage for solvents used in the batch process operations emission unit defined as EUVO1. Some of these tanks may be vented to the thermal oxidizers.</p>	CD01/CD01S, CD02/CD02S
EUTF1-NSPS	<p>EUTF1-NSPS is the emission unit that represents the collective VOC solvent tanks that are subject to the NSPS for Storage Vessels (40 CFR Part 60 Subpart Kb). These tanks provide storage for solvents used in the batch process operations emission unit defined as EUVO1 in addition to the tanks included in EUTF1. Each tank may store volatile organic liquids (VOL), was constructed, modified or reconstructed after July 23, 1984 and has a capacity greater than or equal to 75 cubic meters (approximately 19,813 gallons). Under this emission unit are not included the acetone and methylene chloride tanks, since they are not regulated under subpart Kb.</p> <p>These tanks require no controls because the vapor pressure of the materials stored in each tank are maintained below the specified Subpart Kb thresholds (the vapor pressure threshold is different for different size tanks). However some tanks are vented to one or more of the thermal oxidizers.</p>	CD01/CD01S, CD02/CD02S

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EMISSION UNIT	DESCRIPTION³	CONTROL DEVICES^a
EUTF1-MACT	EUTF1-MACT is the emission unit that represents the collective storage tanks subject to the pharmaceutical production MACT. All tanks in this emission unit are routed to the thermal oxidizer units (CD01/CD01S or CD02/CD02S) for control of HAP emissions. Storage tanks may vent directly to the atmosphere during planned routine maintenance periods. [40 CFR §63.1252(h)(5)].	CD01/CD01S, CD02/CD02S
EUVO1-MACT	<p>The emission unit EUVO1-MACT consists of all equipment used in the pharmaceutical manufacturing in the facility that use hazardous air pollutants and are subject to the pharmaceutical MACT (40 CFR 63 Subpart GGG).</p> <p>The equipment consists of, but is not necessarily limited to, process vessels, reactors, tanks, fugitive emission sources (valves, flanges, etc.), centrifuges, stills, process condensers, inline filters, etc. This equipment is organized into process trains that are generally used together for production. However, processes are not necessarily restricted to any particular vessel or train of equipment for production. Furthermore, production of specific products is not necessarily confined to a specific building.</p> <p>VOC emissions are controlled by the thermal oxidizer units installed to facilitate compliance with the pharmaceutical production MACT. This equipment includes two thermal oxidizers, each with a dedicated scrubber. Typically, only one TOU operates at a time with the second unit maintained as a backup.</p> <p>The pharmaceutical production equipment is subject to the provisions of the 40 CFR §63.1252 and §63.1254.</p>	CD01/CD01S, CD02/CD02S, CD22, CD23

EMISSION UNIT	DESCRIPTION ³	CONTROL DEVICES ^a
* EUWW1-MACT	<p>Non-exempt wastewater streams generated as part of the MACT-affected pharmaceutical production processes are designated as affected wastewater. The facility currently has two chemical sewer systems that manage MACT affected wastewater: one for concentrated streams (From 1% to 5% HAPs) and another for dilute streams (less than 1% HAPs and that do not qualify for the 5 ppm exemption). The dilute wastewater streams are hard-piped and collected in storage tanks dedicated to each of the manufacturing buildings. From the wastewater collection tanks, the wastewater is transferred via an overhead piping system to an on-site treatment system consisting of air stripping and sequencing batch reactors (SBRs). Other concentrated wastewater streams that typically contain 10% or more HAPs are hard-piped and are generally collected in tanks and transported to an offsite facility for treatment. There are other wastewater streams that can be collected and hard-piped internally for recovery processes.</p> <p>Emission unit EUWW1-MACT includes two air strippers, connected in parallel, followed by two biological treatment units (SBR) connected in parallel and that operate alternately for the treatment of wastewater generated at the BMSMC-Barceloneta facility. The air stream from the strippers (containing HAPs removed from the wastewater stream) is routed to the thermal oxidizer units for control of organic HAP emissions. EUWW1-MACT also consists of building wastewater collection tanks, strong wastewater tanks, and equalization tanks. Emissions from this equipment are routed to the thermal oxidizers for control of organic HAPs.</p> <p>* The two SBR reactors, one post-SBR equalization tank, and one sludge holding tank, and a belt filter press are vented to the scrubbers for odor control⁴.</p>	CD01/CD01S, CD02/CD02S
EULDAR1-MACT	<p>This emission unit includes equipment components in organic HAP service subject to the LDAR requirements of the pharmaceutical MACT, 40 CFR §63.1255. BMSMC-Barceloneta elected to comply with the requirements in 40 CFR Part 63 Subpart GGG for sources previously subject to 40 CFR Part 63, Subpart H, in accordance with the provisions of 40 CFR §63.1250.</p>	None

* ⁴ The scrubbers were installed as a voluntary effort in order to provide the system with an objectionable odors control mechanism exclusively in cases where processes are carried out, if any, which could generate objectionable odors.

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EMISSION UNIT	DESCRIPTION ³	CONTROL DEVICES ^a
EUMISC-MACT	The emission unit consists of process condensers, heat exchange systems, and vapor suppression equipment regulated under the pharmaceutical production MACT of the 40 CFR Part 63, Subpart GGG. The work practice applicable requirements for this emissions unit include monitoring standards to prevent inadvertent HAP emissions. Process condensers demonstration requirements are defined in the approved pharmaceutical production MACT Precompliance Report. Heat exchange systems are subject to the requirements of 40 CFR §63.1252(c) and vapor suppression equipment are subject to the requirements of 40 CFR §63.1258(h).	None

^a Not all of the individual equipment that is part of the emission unit is necessarily connected to the primary control equipment of the emission unit. Refer to Appendix V for a list of the control equipment and associated control devices.

Appendixes IV and V include a list of all existing processes, emission sources and control equipments that are authorized to operate under this Title V.

Section III - General Permit Conditions

1. **Sanctions and Penalties:** BSMSC-Barceloneta is obligated to comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Any violation of the terms of this permit will be subject to administrative, civil or criminal penalties as established in the Environmental Public Policy Act, Article 16 (Act Number 416, September 22, 2004, as amended).
2. **Right of Entry:** As specified under Rules 103 and 603(c)(2) of the RCAP, the permittee shall allow the Board or an authorized representative, upon presentation of credentials and other documents as may be required by law, to perform the following activities:
 - a. Enter upon the permittee’s premises where an emission source is located or where emissions related activities are conducted, or where records must be kept under the conditions of this permit, under the RCAP, or under the Clean Air Act;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit, under the RCAP, or under the Clean Air Act;
 - c. Inspect and examine any facility, equipment (including monitoring and air pollution control equipment), practices or operations (including QA/QC methods) regulated or required under this permit; as well as sampling emissions of air quality and fuels; and

- d. As authorized by the Act and the RCAP, to sample, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.
3. **Sworn Statement:** All reports required pursuant Rule 103(D) of the RCAP (i.e., semiannual monitoring reports and annual compliance certification) shall be submitted together with a sworn statement or affidavit by the Responsible Official or a duly authorized representative. Such sworn statement shall attest to the truth, correctness and completeness of such records and reports.
4. **Data Availability:** As specified under Rule 104 of the RCAP, all emission data obtained by or submitted to the Board, including data reported pursuant to Rule 103 of the RCAP, and data obtained in any other way, shall be available for public inspection and may also be made available to the public in any additional manner that the Board may deem appropriate, except when requested by the petitioner, the Governing Board has determined that the information is confidential, following the procedure established by the Resolution R-83-7-4 of March 2, 1983.
5. **Emergency Plan:** According to Rule 107 (B) of the RCAP, the permittee shall have available an Emergency Plan which must be consistent with adequate safety practices, and provides for the reduction or retention of the emissions from the plant during periods classified by the Board as air pollution alerts, warnings or emergencies. These plans shall identify the emission sources; include the reduction to be accomplished for each source, and the means by which such reduction will be accomplished. These plans will be available for any representative of the Board at any time.
6. **Control Equipment:** The permittee shall comply with Rule 108 of the RCAP, as follows:
 - a. All air pollution control equipment or control measures shall provide for continuous compliance with applicable rules and regulations. Such equipment or measures shall be installed, maintained, and operated according to those conditions imposed by this Title V permit, within the specified operating limitations of the manufacturer.
 - b. The collected material from air pollution control equipment shall be disposed in accordance with applicable rules and regulations. The removal, manipulation, transportation, storage, treatment or disposal will be done in such or manner that shall not to produce environmental degradation, and in accordance with applicable rules and regulations.
 - c. The Board may require, when deemed appropriate to safeguard the health and welfare of human beings, the installation and maintenance of additional, complete and separate air pollution control equipment of a capacity equal to the capacity of the primary control equipment. Furthermore, the Board may require that such

additional air pollution control equipment be operated continuously and conjunctionally with the primary air pollution control equipment.

- d. All air pollution control equipment shall be operated at all times while the source being controlled is in operation.
- e. In the case of a shutdown of air pollution control equipment for the necessary scheduled maintenance, the intent to shutdown such equipment shall be reported to the Board at least three days prior to the planned shutdown. Such prior notice shall include, but is not limited to the following:
 - (1) Identification of the specific source to be taken out of service with 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 likely to be permitted during the shutdown period.
 - (4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period.
 - (5) The reasons why it will be impossible or impractical to shutdown the operating source during the maintenance period.
- f. The permittee shall to the extent possible, maintain and operate at all times, including periods of start-up, shutdown and malfunction, any affected source and the associated air pollution control equipment, in a manner consistent with the original manufacturers design specifications and in compliance with applicable rules and regulations and permit conditions.

- * **7. Compliance Certification:** According to Rule 602(c)(2)(ix)(C) of the RCAP, BMSMC-Barceloneta shall submit every year a Compliance Certification. This certification shall be submitted to both the Board and the EPA⁵ on or before April 1st each year, covering the previous calendar year. In case there are conditions subject to a reconsideration process to the final permit adopted by the Board, the compliance certification for the conditions included in the reconsideration will only be applicable for the time passed since the effective date determined by the Administrative Judge once the applicable procedure has been resolved and after the 45-day review period by the EPA. It shall include, but will not be limited to, the information required by Rule 603(c) of the RCAP.

⁵ The certification to the EQB shall be mailed to: Manager, Air Quality Program, P.O. Box 11488, Santurce, PR 00910. The certification to the EPA shall be mailed to: Director CEPD, US EPA-Region II, Centro Europa Building 1492, Ponce de León Ave. Stop 22, Santurce, PR 00909

8. **Regulation Compliance:** As specified under Rule 115 of the RCAP, any violation to the RCAP, or to any other applicable rule or regulation, shall be grounds for the Board to suspend, modify, or revoke any relevant permit, approval, variance or other authorization issued by the Board.
9. **Location Approval:** As specified under Rule 201 of the RCAP, nothing in this permit shall be interpreted as authorizing the location or construction of a major stationary source, or the modification of a major stationary source, or a major modification of a significant source, without obtaining first a location approval from the Board and without first demonstrating compliance with the National Ambient Air Quality Standards (NAAQS). This permit does not allow the construction of new minor sources without previously obtaining a construction permit under Rule 203 of the RCAP.
10. **Open Burning:** According to Rule 402 of the RCAP, the permittee shall not cause or permit the open burning of refuse in their premises. This Rule will not apply to open burning for the purpose of training or research of fire fighting techniques when conducted at an institutionalized training center, as previously approved by the Board. The permittee shall keep records of fire fighting activities related to research or training. These records shall be made available upon request.
11. **Particulate Fugitive Emissions:** As established in Rule 404 of the RCAP, the permittee shall not cause or permit:
 - a. any materials to be handled, transported, or stored in a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished, without taking reasonable precautions to prevent particulate matter from becoming airborne.
 - b. the discharge of visible emissions of fugitive dust beyond the boundary line of the property on which the emissions originate.
- * 12. **Objectionable Odors:** As specified under Rule 420 of the RCAP, the permittee shall not cause or permit emissions to the atmosphere of any matter which produces an *objectionable* odor that can be perceived in an area other than that designated for industrial purposes. The permittee shall demonstrate compliance with Rule 420 (A)(1) as follows: if objectionable odors are detectable beyond the premises designated for industrial purposes by an odor committee established by the Board, and complaints are received, the permittee shall investigate and take measures to minimize and/or eliminate the malodors, if necessary. [This condition is State enforceable only].
13. **Permit Renewal Applications:** According to Rule 602 (a)(1)(iv) of the RCAP, applications for permit renewal shall be submitted twelve (12) months prior to the date of permit expiration. The Responsible Official must certify each one of the forms required pursuant to paragraph (c)(3) of Rule 602 of the RCAP.

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

- a. Expiration: This authorization shall have a fixed term of 5 years since the effective date. The expiration date will be automatically extended until the Board approves or denies a renewal application but only in those cases where the permittee submits a complete renewal application at least 12 months before the expiration date. [Rules 603 (a)(2), 605 (c)(2), and 605(c)(4) of the RCAP]
- b. Permit Shield: As specified under Rule 605 (c)(4)(i) of the RCAP, the permit shield may be extended until the time the permit is renewed if a timely and complete renewal application is submitted.
- c. In case that this permit is subject to any challenge by third parties, the permit shall remain in effect until the time it is revoked by a court of law with jurisdiction in the matter.

* 15. **Recordkeeping Requirements:** As established under Rule 603(a)(4)(ii) of the RCAP, the permittee shall retain records of all required monitoring data and support information for a period of 5 years from the date of the monitoring sample, measurement, report, or application⁶.

16. **Reporting Requirement for Monitoring:** As established under Rule 603(a)(5)(i) of the RCAP, the permittee shall submit reports of all required monitoring every 6 months, or more frequently if required by the Board or any other underlying applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official as established under Rule 602(c)(3) of the RCAP.

17. **Deviations Reporting due to Emergencies⁷:** According to Rule 603(a)(5)(ii) of the RCAP, any deviation resulting from an upset (such as sudden malfunction or breakdown) or emergency conditions, as defined in Rule 603(e) of the RCAP, must be reported within the next 2 working days of the time when emission limitations were exceeded due to the emergency, if BMSMC-Barceloneta wishes to assert the affirmative defense authorized under Rule 603(e) of the RCAP. If BMSMC-Barceloneta raises the emergency defense upon an enforcement action, the permittee shall demonstrate that such deviation occurred due to an emergency and that the Board was adequately notified. If such emergency deviation lasts for more than 24 hours, the affected units may be operated until the end of the cycle or 48 hours, whichever occurs first. The Board may only

* ⁶ According to 40 CFR Part 63, §63.10(b)(1), at a minimum, the most recent 2 years of data (records required by Part 63) shall be retained on site. The remaining 3 years of data may be retained off site.

⁷ Except sources affected by the 40 CFR part 63, subpart GGG (Pharmaceutical Production MACT) and included in the Startup, Shutdown and Malfunction Plan of BMSMC-Barceloneta that shall comply with 40 CFR §63.6(e)(3) specifically.

extend the operation of an emission source in excess of 48 hours, if the source demonstrates to the Board's satisfaction that the National Air Quality Standards have not been exceeded and that there is no risk to the public health.

- * 18. **Deviation Notifications (Hazardous Air Pollutants):** The source (except sources affected by the Pharmaceutical Industry MACT and included in the SSMP for BSMC-Barceloneta, which shall comply with the provisions of 40 CFR §63.6(e) specifically) shall act as specified in its Emergency Response Plan (established in Rule 107 (C) of the RCAP), when such Plan has demonstrated that there is no significant impact at the fenceline or shall shut down its operations immediately if there is a significant impact at the fenceline. (This condition is state-enforceable only). Pursuant to Rule 603 (a)(5)(ii)(b), a notification will be required if a deviation occurs that results in the release of emissions of hazardous air pollutants for more than an hour in excess of the applicable limit. The permittee shall notify the Board within 24 hours of the deviation. For the discharge of any regulated air pollutant that continues for more than 2 hours in excess of the applicable limit, the Permittee shall notify the Board within 24 hours of the deviation. The Permittee shall also submit to the Board, within 7 days of the deviation, a detailed written report which includes probable causes, time and duration of the deviation, remedial action taken, and steps which are being taken to prevent a reoccurrence.
19. **Severability Clause:** As established under Rule 603(a)(6) of the RCAP, the clauses in this permit are severable. In the event of a successful challenge to any portion of the permit in an administrative or judicial forum, or in the event any of its clauses is held to be invalid, all other portions of the permit shall remain valid and effective, including those related to emission limits, terms and conditions, be they specific or general, as well as monitoring, record keeping and reporting requirements.
20. **Permit Noncompliance:** As established under Rule 603(a)(7)(i) of the RCAP, the permittee must comply with all conditions of this permit. Permit noncompliance constitutes a violation of the RCAP and will be grounds for taking the appropriate enforcement action, impose sanctions, revoke, terminate, modify, reissue the permit, or to deny a permit renewal application.
21. **Defense not Allowed:** As specified under Rule 603(a)(7)(ii) of the RCAP, it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
22. **Permit Modification and Revocation:** As specified under Rule 603(a)(7)(iii) of the RCAP, the permit may be modified, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

23. **Property Rights:** As specified under Rule 603(a)(7)(iv) of the RCAP, this permit does not convey any property rights of any sort, nor does it grant any exclusive privilege.
24. **Obligation to Furnish Information:** As specified under Rule 603(a)(7)(v) of the RCAP, the permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit.
25. **Changes in Operating Scenarios:** As specified under Rule 603(a)(10) of the RCAP, the permittee shall record in a record, contemporaneously with making a change from one operating scenario to another, the scenario under which it is operating. This record must be kept at the facility at all times.
26. **Final Action:** According to Rule 605(d) of the RCAP, it shall never be considered that a permit has been issued by default as a result of the Board's failure to take final action on a permit application within 18 months. The Board's failure to issue a final permit within 18 months should be treated as a final action solely for the purpose of obtaining judicial review in a state court.
- * 27. **Administrative Permit Amendments and Permit Modifications:** As specified under Rule 606 of the RCAP, the permit shall not be amended nor modified for changes qualifying as a permit revision unless the permittee complies with the requirements for administrative permit amendments and permit modifications as described in the RCAP. BSMC-Barceloneta may apply for a permit revision according to the procedures established in Rule 606 of the RCAP, or a permit reopening if it complies with the circumstances described in Rule 608 of the RCAP.
28. **Permit Reopening:** As specified under Rule 608(a)(1), this permit shall be reopened and revised under the following circumstances:
 - a. Whenever additional applicable requirements under any law or regulation become applicable to the permittee, when the remaining permit term is of 3 or more years. Such reopening shall be completed 18 months after promulgation of said applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to Rule 605(c)(4)(i) or Rule 605(c)(4)(ii) of the RCAP.
 - b. Whenever the Board or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit.

- c. Whenever the Board or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
29. **Changes in Name and/or Ownership:** This permit is issued to **Bristol Myers Squibb Manufacturing Co. - Barceloneta Operations**. In the event that the company and/or facility changes its name or is transferred to a different owner, the new responsible official must submit a sworn statement in which he/she accepts and promises to comply with all conditions of this permit.
30. **Renovation/Demolition Work:** The permittee shall comply with the provisions set forth in 40 CFR §61.145 and §61.150, and Rule 422 of the RCAP when conducting any renovation or demolition activities at the facility subject to such regulatory provisions.
31. **Risk Management Plan:** If during the effectiveness of this permit, the permittee is subject to the 40 CFR Part 68, he/she shall submit a Risk Management Plan according with the compliance schedule in the 40 CFR Section 68.10. If during the effectiveness of this permit, the permittee is subject to the 40 CFR Part 68, as part of the annual compliance certification required under 40 CFR Part 70, the permittee shall submit a compliance certification with the requirements of Part 68, including the recordkeeping and the Risk Management Plan. The permittee shall comply with the general duty requirements of section 112(r)(1) of the Act as follows:
- a. Identify hazards that may result from accidental releases using appropriate hazard assessment techniques.
 - b. Design, maintain, and operate a safe facility.
 - c. Minimize the consequences of accidental releases if they occur.
32. **Requirements for Refrigerants (Climatologic and Stratospheric Ozone Protection):**
- a. In the event that the permittee has equipment or appliances, including air conditioning units, which use Class I or II refrigerants as defined in 40 CFR Part 82, Subpart A, Appendices A and B, he/she shall take the necessary measures to ensure that all maintenance, service or repair services performed are done so according to the practices, certification and personnel requirements, disposition requirements, and recycling and/or recovery equipment certification requirements specified under 40 CFR Part 82, Subpart F. Owners or operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166(k) of the 40 CFR.
 - b. **Service on Motor Vehicles:** If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the

permittee must comply with all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term motor vehicle as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.

33. **Labeling of Products Using Ozone-Depleting Substances:** The permittee shall comply with the standards for labeling of products using 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 must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106 of the 40 CFR.
- b. The placement of the required warning statement must comply with the requirements pursuant to §82.108 of the 40 CFR.
- c. The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110 of the 40 CFR.
- d. No person may modify, remove, or interfere with the required warning statement except as described in §82.112 of the 40 CFR.

* 34. **Emergency Generators** [State Enforceable Only]

- a. The operation for each electric generator identified as insignificant activity is limited to 500 hours per year.
- a. The permittee shall keep an annual record of the hours of operation and fuel consumption for each electric generator. It shall be kept available at any time for inspection by EQB and EPA personnel

35. **Compliance Clause:** Under no circumstances does compliance with this permit exempt the permittee from complying with all other applicable state or federal laws, regulations, permits, administrative orders or applicable court orders.

36. **Emissions Calculations:** The permittee shall submit, on the first day of April each year, the actual or permissible emissions calculations for the previous calendar year. The emissions calculations shall be submitted on the forms prepared by the Board for this purpose. The responsible official must certify all the information submitted as true, correct and representative of the permitted activity. The permittee must make the applicable payment for the emissions calculations for the previous calendar year on or before June 30 of each year.

37. **Annual fee:** As specified under Rule 610 of the RCAP, the permittee must submit an annual payment based on the emissions calculations for each regulated pollutant. The payment will be based on their actual emissions at a rate of \$37.00 per ton, unless the Board decides otherwise as permitted under Rule 610(b)(2)(iv) of the RCAP. This payment for the previous year must be made on or before June 30 of each year.
38. **New Requirements or New Applicable Amendments:** In case a new regulation is established or an existing one is amended (state or federal) and the Board determines that it applies to the facility, BMSMC-Barceloneta shall comply with what is established as soon as this regulation or amendment becomes effective.
39. **Reports:** Any requirement of information submittal to the Board shall be addressed to: Manager, Air Quality Area, PO Box 11488, Santurce, P.R. 00910.
40. In case there is a discrepancy or inconsistency between the federal regulations and the conditions in this permit, BMSMC-Barceloneta shall apply for an administrative amendment to the permit to clarify the discrepancy.
41. **Reservation of Rights:** Except as expressly provided in this Title V permit:
- a. Nothing herein shall prevent EPA or the Board from taking administrative enforcement measures or seeking legal or equitable relief to enforce the terms of the Title V permit, including but not limited to the right to seek injunctive relief, and imposition of statutory penalties and fines.
 - b. Nothing herein shall be construed to limit the rights of EPA or the Board to undertake any criminal enforcement activity against the permittee or any person.
 - c. Nothing herein shall be construed to limit the authority of EPA or the Board to undertake any actions in response to conditions that present an imminent and substantial endangerment to public health or welfare, or the environment.
 - d. Nothing herein shall be construed to limit the permittee's rights to administrative hearing and judicial appeal of termination/ revocation/ disputes over modification/ denial actions in accordance with regulations and the Environmental Public Policy Act.
- * 42. **Source Modifications without a permit revision:** According to Rule 607 of the RCAP, BMSMC-Barceloneta may perform:
- * (a) Source changes
 - * (1) Permitted sources may make Section 502(b)(10) changes without requiring a permit revision, if the changes are not modifications under any

provision of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions).

- * (i) For each such change, the facility must provide the Administrator and the Board with written notification in advance of the proposed changes, which shall be seven (7) days. The written notification shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The source, the Board, and EPA shall attach each such notice to their copy of the relevant permit.
- * (ii) The permit shield described in paragraph (d) of Rule 603 shall not apply to any change made pursuant to section (a)(1) of Rule 607.
- * (2) Permitted sources may trade increases and decreases in emissions in the permitted facility for the same pollutant, where the permit provides for such emissions trades without requiring a permit revision and based on the 7-day notice prescribed in section (a)(2) of Rule 607. This provision is available in those cases where the permit does not already provide for such emissions trading.
 - * (i) Under paragraph (a)(2) of Rule 607, the written notification required shall include such information as may be required by the provision in the Puerto Rico State Implementation Plan (PR-SIP) authorizing the emissions trade, including when the proposed change will occur, a description of each such change, any change in emissions, the permit requirements with which the source will comply using the emissions trading provisions of the PR-SIP, and the pollutants emitted subject to the emissions trade. The notice shall also refer to the provisions with which the source will comply in the PR- SIP and that provide for the emissions trade.
 - * (ii) The permit shield described in paragraph (d) of Rule 603 shall not extend to any change made under section (a)(2) of Rule 607. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the applicable implementation plan authorizing the emissions trade.
- * (3) If a permit applicant requests it, the Board shall issue permits that contain terms and conditions (including all terms required under sections (a) and (c) of Rule 603 to determine compliance) allowing for the trading of

emissions increases and decreases in the permitted facility solely for the purpose of complying with a federally-enforceable emissions cap. Such a cap must be established in the permit independent of otherwise applicable requirements. The permit applicant shall include in its application proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. The Board shall not be required to include in the emissions trading provisions any emissions units for which emissions are not quantifiable or for which there are no replicable procedures to enforce the emissions trades. The permit shall also require compliance with all applicable requirements.

- * (i) Under section (a)(3) of Rule 607, the written notification required shall state when the change will occur and shall describe the changes in emissions that will result and how these increases and decreases in emissions will comply with the terms and conditions of the permit.
 - * (ii) The permit shield described in paragraph (d) of Rule 603 may extend to terms and conditions that allow such increases and decreases in emissions.
- * (b) Off-Permit Changes. The Board may allow changes that are not addressed or prohibited by the permit and/or State Law.
- * (1) A permitted facility may make changes without obtaining a permit revision if such changes are not addressed or prohibited by the permit, other than those described in paragraph (c) of Rule 607.
 - * (2) Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition.
 - * (3) Sources must provide contemporaneous written notice to the Board and EPA of each such change, except for changes that qualify as insignificant under paragraph (c)(1) of Rule 602. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply because of the change.
 - * (i) The change shall not qualify for the shield under paragraph (d) of Rule 603.
 - * (ii) The permittee shall keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

- * (c) A permitted facility cannot make changes without a permit revision if such changes are modifications under any provision of Title I of the Act.
- * 43. (a) BMSMC-Barceloneta may make changes under section 502(b)(10) of the Act without requiring a permit revision if such changes:
 - * (1) are not modifications under any provision of Title I of the Act,
 - * (2) do not exceed the allowable emissions under the permit,
 - * (3) do not result in the emission of any pollutant not previously emitted,
 - * (4) do not violate any applicable requirement or contravene federally enforceable terms and permit conditions such as monitoring (including test methods), recordkeeping, reporting and compliance certification requirements,
 - * (5) are not changes under Title I of the Act to an emission limit, a work practice or a voluntary emission cap.
- * (b) Rule 203 of the RCAP is required for any construction or modification of an emission source. For purposes of part II of the RCAP, a modification is defined as any physical change in, change in the method of operation or a change in type of fuel used of an existing stationary source, that would result in a net increase in that stationary source's potential to emit any air pollutant (subject to any standard), or which results in the emission of any pollutant (subject to an standard) not previously emitted. A physical change shall not include routine maintenance, repair and the replacement of any equipment having the same capacity, equal efficiency or greater environmental benefit to be used for the same purpose.
- * (c) The written notification addressed in condition III.42.(a)(1)(i) refers to changes covered under condition III.42.(a)(1).
- * (d) Any emission trading as provided in condition III.42.(a)(2) above will not be authorized if the facility does not provide the reference to the PR-SIP provisions authorizing such emissions trading.
- * (e) If BMSMC-Barceloneta requests so, the Board may allow the emission trading in the facility solely for the purpose of complying with a federally-enforceable emissions cap. The application shall be based in replicable procedures and shall include permit terms that ensure the emission trades are quantifiable, replicable and enforceable.

- * (f) Off- permit changes will not be exempt from complying with the requirements and procedures of Rule 203 of the RCAP, if applicable.
- * (g) Any change or modification to the Precompliance report approved by EPA and/or EQB may be introduced in the Title V permit through a minor modification procedure under Rule 606(b)(2) of the RCAP, as long as it complies with the minor modification definition included in Rule 606(b)(2)(i) of the RCAP and all other applicable requirements of the RCAP.

Section IV - Potential Emissions

1. The emissions described in the following table represent the facility’s potential emissions and will only be used for fee purposes. According to the Resolution R-97-47-1, the emissions calculations will be based in actual emissions from BMSMC-Barceloneta, although emissions calculations based on the facility’s allowable emissions will be accepted. If BMSMC-Barceloneta wants to perform the calculations based on allowable emissions, will pay the same charge per ton as the sources that perform the calculations based on actual emissions. Also, when BMSMC-Barceloneta applies for a modification, administrative change, or minor modification to its Title V permit, they will only have to pay the amount per ton based in the increase in emissions, if any, caused by the change, and not the whole charges, according to Rule 610(a) of the RCAP.

Criteria Pollutant	Potential Emissions (tons/yr)
PM ₁₀	39.6
SO ₂	49.0
NO _x	133.8
CO	26.4
VOC (including acetone)	68.3
Lead	0.00
HAP	54.2

2. Appendix II contains a list of those HAPs that BMSMC-Barceloneta is authorized to emit. Previous to the construction of new emission sources or the modification of existing sources that result in the emission of any HAP not included in Appendix II, BMSMC-Barceloneta shall obtain a construction permit under Rule 203 of the RCAP, unless Rule 206 of the RCAP exempts it.

Section V - Permit Conditions

A. Requirements for each emission unit⁸

1. EUTO1, EUTO2 – Thermal Oxidizers

Condition	Parameter	Value	Units	Test Method	Frequency of method	Recordkeeping requirements	Reporting frequency
* Visible emissions limit	Visible emissions	20%	6-minute average percent	Method 9	Once during the first year of the permit	With each reading	Report results within 60 days after each reading
			Minimum period of 2-minutes	Visible emissions visual inspection	Weekly	Weekly records	Report results every six months
Fuel sulfur limit	Sulfur content	Less or equal than 2.5	Weight Percent	Analysis of the fuel by the supplier	In each fuel delivery	Daily records of the sulfur content and the fuel consumption	Monthly
* SO ₂ emission limit	SO ₂	15.5	ton/yr	Records	Monthly	Monthly	Annual

a. Visible emissions limit

- i. The permittee shall not exceed the opacity limit of 20% (6-minute average) for the units EUTO1 and EUTO2. Nevertheless, and as specified under Rule 403(A) of the RCAP, the permittee may discharge into the atmosphere visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30 minutes period.
- ii. BMSMC-Barceloneta shall hire an independent opacity reader, certified in a school endorsed by EPA, to perform one opacity reading in the chimney of each thermal oxidizer or in a common stack during the first year of the permit using Method 9 established in the 40 CFR part 60, Appendix A. The oxidizers shall be operating at the time of performance of the opacity reading.
- iii. A stack test protocol shall be submitted at least 30 days prior to the test for approval by EQB. This protocol shall contain the information described in Rule 106(C) of the RCAP.
- iv. The Board shall be notified in writing 15 days prior to the performance test to allow EQB the opportunity to have an observer present. [Rule 106 (D) of the RCAP]

⁸ In case there is any discrepancies or inconsistencies between the information in the tables and the narrative conditions in the permit, BMSMC-Barceloneta shall apply for an administrative permit amendment to clarify the discrepancy.

- v. The permittee shall submit two copies with the results of the performance test within 60 days after the tests are done. The report shall include the information required by Rule 106 (E) of the RCAP.
- * vi. BMSMC-Barceloneta shall perform weekly visual inspections for opacity during the hours of the day in the chimney of the thermal oxidizers or in a common stack [if applicable] for a minimum period of 2 minutes, using a visible emissions reader certified by a program endorsed by EPA or EQB. When a certified reader establishes that there is the potential to exceed the opacity limit according to Rule 403 of the RCAP, BMSMC-Barceloneta shall verify that the equipment causing the visible emissions is operating in accordance with the manufacturer's specifications and permit conditions. If it is not operating adequately, BMSMC-Barceloneta shall take immediate corrective actions to eliminate the excess opacity. After taking the remedial actions, BMSMC-Barceloneta will have to make an opacity visual inspection to determine if the excess opacity was eliminated and must maintain a copy of these readings. These readings must be included in the weekly records and in the semi-annual report required by condition III.16 of this permit.
- vii. BMSMC-Barceloneta shall keep a copy of the visible emissions reading report including the date and time of the reading for at least five years, in compliance with Rule 603(A)(4)(ii) of the RCAP.
- viii. The Board reserves its right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

b. Sulfur limit in the fuel

- i. The oxidizers shall burn fuel oil No. 6 as supplemental fuel, with a sulfur content which shall not exceed 2.5 weight percent, in compliance with Rule 410 of the RCAP.
- ii. Shall keep records to register the fuel sulfur content in weight percent each time fuel is received in the facility. This record shall be available at all times to be reviewed by EQB personnel.
- iii. Shall submit a monthly report indicating the fuel consumption for the thermal oxidizers and the sulfur content certified by the supplier no later than the first 15 days of the month following the one being reported, as required by Rule 410 of the RCAP. This report shall be addressed to the Data Validation and Mathematical Modeling Division and shall be available at all times in the facility to be reviewed by EQB's technical personnel.

- iv. To comply with the previous condition, BMSMC-Barceloneta shall retain a copy of the certificate provided by the supplier indicating the sulfur content in the fuel.
- v. BMSMC-Barceloneta shall submit every year a summary with the information about the sulfur content of the fuel burned by the oxidizers in the annual emissions calculations report required by condition 36 of Section III of this permit.
- vi. BMSMC-Barceloneta shall keep for at least 5 years the fuel sampling reports, monthly reports of the fuel consumption and the sulfur content in the fuel burned, in compliance with Rule 603(a)(4)(ii) of the RCAP.

c. SO₂ emission limit

- i. The SO₂ emission from the thermal oxidizers shall not exceed 15.5 ton/yr during each 12-month rolling period
- * ii. To demonstrate compliance with the previous condition, BMSMC-Barceloneta shall calculate monthly the SO₂ emissions from the thermal oxidizers using the AP-42 emission factors, according to the methodology included in Appendix III of this permit.
- iii. BMSMC-Barceloneta shall keep a daily record where the fuel consumption, hours of operation and sulfur content is recorded, available for inspection by EQB's technical personnel. This information will be used to calculate the SO₂ daily emissions. [PFE-09-0693-0760-I-II-III-O]
- iv. The thermal oxidizers shall be equipped with a fuel flow meter to record the consumption as required by the previous condition. The fuel flow meter shall be calibrated every 6 months. BMSMC-Barceloneta shall prepare and maintain a record with the date, time and calibration results. It shall be available at all times for review by EQB's technical personnel.
- v. BMSMC-Barceloneta shall keep an operation logbook for the thermal oxidizers to record the operational periods, malfunctioning periods, equipment repairs and any condition that is not normal occurs in such equipment. The record shall be available for inspection by EQB's technical personnel. [PFE-09-0693-0760-I-II-III-O]
- vi. The SO₂ emissions from the thermal oxidizers shall be controlled using scrubbers with a minimum efficiency of 95%.

- vii. Shall perform a stack test to each scrubber within twelve months after the effective date of the permit to verify the SO₂ removal efficiency of the scrubbers.
- viii. A stack test protocol shall be submitted at least 30 days prior to the test for approval by EQB. This protocol shall contain the information described in Rule 106(C) of the RCAP.
- ix. The Board shall be notified in writing 15 days prior to the performance test to allow EQB the opportunity to have an observer present. [Rule 106 (D) of the RCAP]
- x. BMSMC-Barceloneta shall submit two copies with the results of the performance test within 60 days after the tests are done. The report shall include the information required by Rule 106 (E) of the RCAP.
- xi. During the test, the source must be operated at its maximum rated capacity or based on representative performance of the affected facility; understanding that, after proving compliance with any applicable emission limit, the Board may restrict the operation of the source at the capacity reached during the performance test. [Rule 106 (F) of the RCAP]
- xii. During the test, BMSMC-Barceloneta shall monitor and record the recirculating liquid flow rate of the scrubber and the pH of the scrubber solution. Compliance with the SO₂ removal efficiency in the scrubber shall be demonstrated by monitoring and recording the value of these parameters.
- * xiii. BMSMC-Barceloneta shall operate continuously the scrubber and the continuous flow monitors in the line that supplies the adsorbing solution (caustic soda) while the thermal oxidizer is in operation. [PFE-09-0693-0760-I-II-III-O].
- xiv. BMSMC-Barceloneta shall retain copies of the monthly and annual consumption reports and of the methodology used for the calibration of the fuel flow meters of the units for at least 5 years, in compliance with Rule 603(a)(4)(ii) of the RCAP.
- xv. BMSMC-Barceloneta shall submit every year a summary with the information about the sulfur content in the fuel burned in the thermal oxidizers in the annual emissions calculations report required by condition 36 of section III of the permit.

2. EUBO1 - Boiler No. 1

Condition	Parameter	Value	Units	Test Method	Frequency of method	Recordkeeping requirements	Reporting frequency
Sulfur limit in the fuel	Sulfur content	Less than or equal to 0.25	Weight percent	Analysis of the fuel by the supplier	With each fuel delivery	Daily record of the sulfur content and the fuel consumption	Monthly Annual
Fuel consumption limit	Fuel #2 used (diesel)	Less than or equal to 1,892,160	Gallons per year (12-month rolling period)	Consumption	Calculate monthly consumption	Daily of the fuel consumption	Annually
Particulate matter emission limit	Particulate matter	0.3	Pounds per million Btu	Method 5	A test during the first year of the permit	Test final report	60 days after the test
				In substitution: Fuel supplier certification of the type of fuel used.	Each time that fuel is received in the facility	Daily record of the type of fuel and the sulfur content in the fuel burned	Annual
* Visible emissions limit	Visible emissions	20%	6-minute average percent	Method 9	Once during the first year of the permit	With each reading	Report results within 60 days after each reading
			Minimum period of 2-minutes	Visible emissions visual inspection	Weekly	Weekly records	Report results every six months

a. Sulfur limit in the fuel

- i. As required by the permit PFE-09-1000-1891-II-C, BMSMC-Barceloneta shall not burn or allow the use of any fuel in the boiler that has a sulfur weight percentage exceeding 0.25%.
- ii. BMSMC-Barceloneta shall record the sulfur content in the no. 2 fuel in weight percent each time it is delivered in the facility. This record shall be made available at all times for review by the Board’s and the EPA’s personnel
- iii. As required by the 40 CFR §60.42c(h), compliance with the sulfur limit in the fuel may be determined based on a certification from the fuel supplier, which will include the following information of the 40 CFR §60.48(f)(1):
 - (A) The name of the fuel supplier
 - (B) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in § 60.41c of the 40 CFR.

- iv. BMSMC-Barceloneta shall submit a monthly report indicating the fuel consumption in the boiler and copy of the certification provided by the supplier with respect to the sulfur content no later than the next 15 days of the month following the one being reported as required by Rule 410 of the RCAP. This report shall be addressed to the Data Validation and Mathematical Modeling Division and shall be available in the facility for review by the Board's technical personnel.
- v. BMSMC-Barceloneta shall keep for at least 5 years the fuel sampling reports, monthly reports of the fuel consumption and the sulfur content in the fuels burned, in compliance with Rule 603(a)(4)(ii) of the RCAP.
- vi. According to §63.42c(i) of the 40 CFR, the sulfur limit in the fuel shall apply at all times, including periods of startup, shutdown and malfunction.

b. Fuel consumption limit

- * i. The diesel consumption limit shall not exceed 1,892,160 gallons per year.[PFE-09-1000-1891-II-C]
- ii. BMSMC-Barceloneta shall install and operate a fuel flow meter in the boiler. This meter shall be calibrated every six months or according to the manufacturer's recommendation, whichever is less. BMSMC-Barceloneta shall keep the calibration methodology and the results of the calibration, available at the facility for inspection by EQB's technical personnel. [PFE-09-1000-1891-II-C]
- iii. BMSMC-Barceloneta shall keep a daily record to register the hours of operation, the fuel consumption of the fuel meter and the sulfur content. This record shall be made available for inspection by EQB's technical personnel. [PFE-09-1000-1891-II-C]
- iv. BMSMC-Barceloneta shall retain copies of the monthly and annual fuel consumption reports and of the methodology used for the calibrations of the fuel flow meter of the units for at least five years, in compliance with Rule 603(a)(4)(ii) of the RCAP.
- v. BMSMC-Barceloneta shall submit every year, along with the compliance certification, copies of the monthly and annual consumption reports for the units corresponding to the year of the compliance certification. [PFE-09-1000-1891-II-C]

c. Particulate matter emission limit:

- i. The permittee shall not cause or allow the emission of particulate matter in excess of 0.30 pounds per million Btu of heat input from any fuel burning equipment burning solid or liquid fuel. [Rule 406 of the RCAP]
- ii. To demonstrate compliance with the previous condition, BMSMC-Barceloneta shall use any of the following methods:
 - (A) Performance test:
 - (1) BMSMC-Barceloneta shall conduct a performance test during the first year of the permit using Method 5 of the CFR Part 60 Appendix A.
 - (2) BMSMC-Barceloneta shall submit a stack test protocol at least 30 days prior to the test for EQB approval. This protocol shall contain the information described in Rule 106(C) of the RCAP.
 - (3) BMSMC-Barceloneta shall notify the Board in writing 15 days prior to the performance test to allow EQB the opportunity to have an observer present. [Rule 106 (D) of the RCAP]
 - (4) BMSMC-Barceloneta shall submit two copies with the results of the performance test within 60 days after the tests are done. The report shall include the information required by Rule 106 (E) of the RCAP.
 - (5) During the tests, the source must be operated at its maximum rated capacity based in representative performance of the affected facility, understanding that after proving compliance with any applicable emission limit, the Board may restrict the operation of the source at the capacity reached during the performance test. [Rule 106 (F) of the RCAP]
 - (B) Supplier certification of the sulfur in the fuel used
 - (1) BMSMC-Barceloneta shall keep records of the type of fuel used, actual usage and fuel sulfur percent certified by the supplier in the boiler.

- (2) BMSMC-Barceloneta shall use the most recent emission factors from the AP-42 together with the records of fuel usage and the sulfur content to calculate the particulate matter emissions and demonstrate compliance with the limit established in the previous table. Emission factors from AP-42 of EPA: *Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, Fifth Edition, Office of Air Quality Planning and Standards.*

d. Visible emissions limit:

- i. BMSMC-Barceloneta shall not exceed the opacity limit of 20% (6-minute average) for the unit EUBO1. Nevertheless, and as specified under Rule 403(A) of the RCAP, the permittee may discharge into the atmosphere visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30 minutes period.
- ii. As required by the 40 CFR §63.43c(c), BMSMC-Barceloneta shall not cause shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.
- iii. BMSMC-Barceloneta shall hire an independent opacity reader, certified in a school approved by EPA, to perform one opacity reading in the chimney of the boiler during the first year of the permit using Method 9 established in the 40 CFR part 60, Appendix A. The boiler shall be operating at the time of the opacity reading.
- iv. A stack test protocol shall be submitted at least 30 days prior to the test for approval by EQB. This protocol shall contain the information described in Rule 106(C) of the RCAP.
- v. The Board shall be notified in writing 15 days prior to the performance test to allow EQB the opportunity to have an observer present. [Rule 106 (D) of the RCAP]
- vi. BMSMC-Barceloneta shall submit two copies with the results of the performance test within 60 days after the tests are done. The report shall include the information required by Rule 106 (E) of the RCAP.
- * vii. BMSMC-Barceloneta shall perform weekly visual inspections for opacity during the hours of the day in the chimney of the boiler for a minimum period of 2 minutes, using a visible emissions reader certified by a

program endorsed by EPA or EQB. When a certified reader establishes that there is the potential to exceed the opacity limit according to Rule 403 of the RCAP, BSMC-Barceloneta shall verify that the equipment causing the visible emissions is operating in accordance with the manufacturer's specifications and permit conditions. If it is not operating adequately, BSMC-Barceloneta shall take immediate corrective actions to eliminate the excess opacity. After taking the remedial actions, BSMC-Barceloneta will have to make an opacity visual inspection to determine if the excess opacity was eliminated and must maintain a copy of these readings. These readings must be included in the weekly records and in the semi-annual report required by condition III.16 of this permit.

- viii. BSMC-Barceloneta shall keep a copy of the visible emissions reading report including the date and time of the reading for at least five years, in compliance with Rule 603(A)(4)(ii) of the RCAP.
- ix. The Board reserves its right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

3. **EUVO1 - Bulk Manufacturing Batch Pharmaceutical Processes with the Potential to Emit VOC**

a. **Rule 419 of the RCAP**

- i. According to Rule 419 of the RCAP, the permittee shall not cause or permit the emission of 3 pounds per hour or 15 pounds of VOC in any one day from any article, machine, equipment or any other contrivance unless it is provided with a control system, pollution prevention and reduction mechanism or programs or both, as approved or required by the Board.
- ii. BSMC-Barceloneta shall comply with the previous condition using any of the thermal oxidizers described in the emission units EUTO1 y EUTO2. On the other hand, the vents from the hydrogenation tanks shall be controlled by the following equipment:

Process Equipment	Condenser	Emission point
Hydrogenation tank 70-C-360	70-E-364	EP22
Hydrogenation tank 70-C-370	70-E-374	EP23

- iii. BSMC-Barceloneta shall use a scrubber if halogens and hydrogen halides are generated during the oxidation of gases in the thermal oxidizers.
- iv. BSMC-Barceloneta shall operate the control equipment at all times while emissions are generated or could be generated during the

manufacturing processes in excess of the quantities established by Rule 419 of the RCAP.

* **4. EUTF1 - Storage Tanks for Organic Liquid Material [State Enforceable Only]**

Condition	Parameter	Value	Units	Test Method	Frequency of method	Recordkeeping requirements	Reporting frequency
Stationary Tanks	N/A	N/A	N/A	Design or Control device	N/A	Maintenance, repairs	Annual

a. Stationary tanks

i. The permittee shall not place, store or hold any VOC in any stationary tank, reservoir, or other container of more than 40,000 gallons, unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient, under normal operating conditions, to control vapor or gas loss to the atmosphere, or unless it is equipped with: a floating roof as indicated in Rule 417(A), a vapor recovery system as indicated in Rule 417(B), and any other federal applicable requirements.

ii. Compliance with the above condition i. is exempted for the following:

(A) storage of any liquid having no photochemical reactivity (including those compounds listed under the definition of VOC) and having a true vapor pressure less than 0.75 psia, and

(B) tanks that treat wastewater permitted under the Clean Water Act and exempted by rule from RCRA or CERCLA.

* iii. Exemptions based on vapor pressure shall be demonstrated with calculations using equations previously approved by the EPA or the Board.

b. Rule 419 of the RCAP (for tanks not covered by Rule 417 of the RCAP)

i. According to Rule 419(A) of the RCAP, the permittee shall not cause or permit the emission of 3 pounds per hour or 15 pounds of VOC in any one day from any article, machine, equipment or any other contrivance unless it is provided with a control system, pollution prevention and reduction mechanism or programs or both, as approved or required by the Board. [State enforceable only].

ii. According to Rule 419(D)(6)⁹, storage tanks used to store VOC's with a capacity of less than 40,000 gallons are exempted from the rule provided

⁹ The condition references Rule 417(D), which corresponds to Rule 417(F) in the Spanish version of the RCAP.

such storage tanks are equipped with a conservation vent, a flame arrestor or any other equivalent control.

5. EUTF1-NSPS Storage tanks subject to 40 CFR Part 60 Subpart Kb

a. 40 CFR Part 60 subpart Kb

- i. The vapor pressure of the material stored in tanks subject to this emission unit is limited to the following parameters:

Tank capacity	Maximum true vapor pressure
Greater than or equal to 151 m ³	Less than 3.5 kPa
Less than or equal to 75 m ³ but less than 151 m ³	Less than 15.0 kPa

- ii. Vapor pressure shall be demonstrated with calculations using Antoine's equation and average liquid surface temperature.
- iii. As required by §60.116b(b) of the 40 CFR Part 60, BMSMC-Barceloneta shall keep records with the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel.
- iv. Records required by the previous condition will be kept at the facility for the life of the tank, as required by the 40 CFR Part 60, section 60.112b(a). The record shall be available for inspection by EQB personnel.

B. Compliance with the 40 CFR Part 63 Subpart GGG (EUVO1-MACT, EUTF1-MACT, EUWW1-MACT, EULDAR1-MACT, EUMISC-MACT)¹⁰

Applicability

- * 1. The emission units EUVO1-MACT, EUTF1-MACT, EUWW1-MACT, EULDAR1-MACT, EUMISC-MACT are subject to the national emission standards for hazardous air pollutants for pharmaceutical production included in the 40 CFR Part 63 Subpart GGG. BMSMC-Barceloneta shall comply with the requirements of this subpart and with the applicable requirements of the 40 CFR Part 63 Subpart A, as provided in Table 1 of subpart GGG. The provisions of subpart GGG shall not apply to research and development facilities, as defined in section 63.1251 of the 40 CFR.

* ¹⁰ BMSMC-Barceloneta may use a compliance strategy provided in the 40 CFR Part 63 subpart GGG different to the one presented in this section, provided that the change is contemplated in the compliance matrix included in section V.E. of this permit. Any change that is not contemplated in this section must be done using the applicable provisions of Rules 606 or 607 of the RCAP.

2. According to section 63.1250(g)(1) of the 40 CFR, the provisions of subpart GGG of the 40 CFR shall apply at all times, except that the emission limitations shall not apply during periods of startup, shutdown, and malfunction, if these periods preclude the ability of a particular emission point of an affected source to comply with one or more specific emission limitations to which it is subject and BMSMC-Barceloneta follows the provisions for periods of startups, shutdowns and malfunction periods, as specified in sections 63.1259(a)(3) and 63.1260(i) of the 40 CFR. Periods of startups, shutdowns and malfunctions are defined in §63.1251 of the 40 CFR.
3. According to section 63.1250(g)(2) of the 40 CFR, the provisions for equipment leaks set forth in Section 63.1255 of the 40 CFR shall apply at all times except during periods of no operation of the pharmaceutical manufacturing process unit (or specific portion thereof) in which the lines are drained and depressurized resulting in the cessation of the emissions to which this section applies.
4. BMSMC-Barceloneta shall not shut down the operation of equipments that are required or utilized for compliance with the emissions limitations during periods when emissions are being routed to such equipment, if the shutdown would contravene emissions limitations applicable to such equipments. This premise does not apply if the equipment is malfunctioning, if BMSMC-Barceloneta shut down the equipment to avoid damage due to a malfunction of the Pharmaceutical Manufacturing Process Unit (PMPU) or portion thereof, according to section 63.1250(g)(3) of the 40 CFR.
5. During startups, shutdowns, and malfunctions when the emissions limitations do not apply pursuant to sections 63.1250(g)(1) through (2) of the 40 CFR, BMSMC-Barceloneta shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions to the extent practical. The measures to be taken shall be identified in the startup, shutdown, and malfunction plan, and may include, but are not limited to, air pollution control technologies, work practices, pollution prevention, monitoring, and changes in the manner of operation of the source. Back-up control devices are not required, but may be used if available, according to section 63.1250(g)(4) of the 40 CFR.

Standards: General

6. Opening of a safety device – As provided in section 63.1252(a) of the 40 CFR, BMSMC-Barceloneta is allowed to open any safety device, as defined in Section 63.1251 of the 40 CFR, at any time conditions require it to do so to avoid unsafe conditions. [40 CFR §63.1252(a)]
7. Closed-vent systems - Pursuant to section 63.1252(b) of the 40 CFR, the bypass lines of a closed vent system that could divert a vent stream away from a control device used to comply with the emission standards shall comply with the requirements of Table 4 of subpart GGG. To comply with the requirements of

such section, BSMC-Barceloneta shall install, calibrate, maintain, and operate a flow indicator that determines whether vent stream flow is present at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere. Alternatively, BSMC-Barceloneta shall secure the bypass line valve in the closed position with a car seal or lock and type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. Records shall be maintained as specified in §63.1259(i)(6)(ii). [40 CFR §63.1252(b)(2)]

8. Heat exchange systems (EUMISC-MACT) - According to section §63.1252(c) of the 40 CFR, heat exchange systems that cool process equipment or materials used in pharmaceutical manufacturing operation shall be treated according to the provisions of §63.104 of the 40 CFR, except that the monitoring frequency shall be no less than quarterly. For identifying leaking equipment, the owner or operator of heat exchange systems on equipment which meet current good manufacturing practice (cGMP) requirements of 21 CFR part 211 may elect to use the physical integrity of the reactor as the surrogate indicator of heat exchange system leaks around the reactor.
9. Control requirements for certain liquid streams in open systems within a PMPU [40 CFR §63.1252(f)] - BSMC-Barceloneta shall comply with the provisions of Table 5 of subpart GGG for each item of equipment meeting all the following criteria specified in 63.1252(f)(2) through (4) and (f)(5)(i) or (ii):
 - a. The item of equipment is of a type identified in Table 5 of subpart GGG of the 40 CFR, part 63. [40 CFR §63.1252(f)(2)]
 - b. The item of equipment is part of a PMPU, as defined in §63.1251 of the 40 CFR. [40 CFR §63.1252(f)(3)]
 - c. The item of equipment is controlled less stringently than in Table 5 of subpart GGG and the item of equipment is not otherwise exempt from controls by the provisions of subpart GGG or subpart A of the 40 CFR, Part 63; and [40 CFR §63.1252(f)(4)]
 - d. The item of equipment:
 - i. Is a drain, drain hub, manhole, lift station, trench, pipe, or oil/water separator that conveys water with an annual average concentration greater than or equal to 1,300 ppmw of partially soluble HAP compounds; or an annual average concentration greater than or equal to 5,200 ppmw of partially soluble and/or soluble HAP compounds. The annual average concentration shall be determined

according to the procedures in §63.1257(e)(1)(ii) of the 40 CFR. [40 CFR §63.1252(f)(5)(i)]

- ii. Is a tank that receives one or more streams that contain water with an annual average concentration greater than or equal to 1,300 ppmw of partially soluble HAP compounds. The owner or operator of the source shall determine the average concentration of the stream at the inlet to the tank and according to the procedures §63.1257(e)(1)(ii) of the 40 CFR. [40 CFR § 63.1252(f)(5)(ii)]
10. Control requirements for halogenated vent streams that are controlled by combustion devices - In compliance with section 63.1252(g) of the 40 CFR, halogenated vent stream from the thermal oxidizer used to comply with the emission standards of subpart GGG shall be ducted to a scrubber before it is discharged to the atmosphere. The scrubber must achieve a reduction efficiency of 95%.
 11. Planned routine maintenance for centralized combustion control devices (CCCD)- According to section 63.1252(h), BSMC-Barceloneta may operate non-dedicated PMPU's during periods of planned routine maintenance for CCCD in accordance with the provisions specified next:
 - a. For equipment leaks and wastewater emissions that normally are controlled by the CCCD, if any, BSMC-Barceloneta must continue to comply with the requirements in §63.1255(b)(4)(ii) and 63.1256(h) of the 40 CFR, respectively, using other control devices during the planned routine maintenance period for the CCCD. [40 CFR §63.1252(h)(1)]
 - b. During the planned routine maintenance period, BSMC-Barceloneta must route emissions from process vents with organic HAP emissions greater than 15 pounds per day (lb/day) through a closed-vent system to a condenser that meets the conditions specified next: [40 CFR §63.1252(h)(2)]
 - i. The outlet gas temperature must be less than -50 °C (-58 °F) when the emission stream contains organic HAP with a partial pressure greater than 20 kPa (2.9 psia). [40 CFR §63.1252(h)(2)(i)]
 - ii. The outlet gas temperature must be less than -5 °C (23 °F) when the emission stream contains organic HAP with a partial pressure less than or equal to 20 kPa (2.9 psia). [40 CFR §63.1252(h)(2)(ii)]
 - c. BSMC-Barceloneta must route HCl emissions from process vents with HCl emissions greater than 15 lb/day through a closed-vent system to a caustic scrubber, and the pH of the scrubber effluent must be maintained at or above 9. [40 CFR §63.1252(h)(3)]

- d. For the purposes of the emission calculations required in paragraphs (h)(2) and (3) of section 63.1252 of the 40 CFR, the term “process vent” shall mean each vent from a unit operation. The emission calculation shall not be performed on the aggregated emission stream from multiple unit operations that are manifolded together into a common header. Once an affected process vent has been controlled in accordance with section 63.1252 of the 40 CFR, it is no longer subject to the requirements of such section or section 63.1254 of the 40 CFR during the routine maintenance period. [40 CFR §63.1252(h)(4)]
- e. The total period of planned routine maintenance, during which non-dedicated PMPU's that are normally controlled by the CCCD continue to operate, and process vent emissions are controlled as specified in paragraphs 63.1252(h)(2) and (3), shall not exceed 240 hours in any 365-day period. [40 CFR §63.1252(h)(5)]

Standards: Storage Tanks (EUTF1-MACT)

- 12. As a primary compliance strategy, BSMC-Barceloneta shall comply with section 63.1253(d) of the 40 CFR by routing the emissions from the storage tanks to a combustion device that achieves an outlet TOC concentration of 20 ppmv or less, as calibrated with methane or the predominant HAP. As an alternative, BSMC-Barceloneta shall control the halogens and halide emissions by 95% according to the provisions in §63.1252(g) of the 40 CFR. Compliance with the outlet concentrations will be determined according to the procedures of initial compliance of section 63.1257(c)(4) of the 40 CFR and with the continuous emission monitoring requirements in section 63.1258(b)(5) of the 40 CFR. [40 CFR §63.1253(d)]
- 13. Planned Routine Maintenance - The specifications and requirements in the previous condition for control devices do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of the control devices (including CCCD subject to section 63.1252(h)), during which the control device does not meet the specifications of the previous condition shall not exceed 240 hours in any 365-day period. [40 CFR §63.1253(e)]

Standards: Process vents (EUVO1-MACT)

- 14. As the primary compliance strategy, the emissions from a new or existing source from BSMC-Barceloneta shall comply with the process vents emission standards by routing the process vents to the thermal oxidizer complex, which will achieve a TOC outlet concentration, as calibrated on methane or the predominant HAP, of 20 ppmv or less. The halogens and hydrogen halide emissions shall be reduced by 95%, according to the provisions of section

63.1252(g). Continuous compliance shall be demonstrated according to the emission monitoring requirements described in section 63.1258(b)(5) of the 40 CFR. [40 CFR §63.1254(c)]

15. Those miscellaneous emissions that for operational control, safety concerns, or engineering reasons are not routed to the thermal oxidizers for control shall comply with the process based annual mass limit (PBAML) requirements, included in section 63.1254(a)(2) of the 40 CFR, as described next.
 - a. Actual HAP emissions from the sum of all process vents within a process must not exceed 900 kg in any 365-day period. [40 CFR §63.1254(a)(2)(i)]
 - * b. Actual HAP emissions from the sum of all process vents within processes complying with the emission limits in the previous condition are limited to a maximum of 1,800 kg in any 365-day period. These process-based annual mass limit requirements shall be calculated monthly in a daily rolling period, as approved in the precompliance report. [40 CFR §63.1254(a)(2)(ii)]
 - c. Emissions from vents that are subject to the requirements to reduce emissions from an individual vent in §63.1254(a)(3) of the 40 CFR and emissions from vents that are controlled in accordance with the procedures in §63.1254(c) of the 40 CFR may be excluded from the sums calculated in §63.1254(a)(2)(i) and (ii). [40 CFR §63.1254(a)(2)(iii)]
 - d. BMSMC-Barceloneta may switch from compliance with 63.1254(a)(2) of the 40 CFR to compliance with 63.1254(a)(1) of the 40 CFR only after at least 1 year of operation in compliance with paragraph (a)(2) of the 40 CFR. Notification of such a change in the compliance method shall be reported according to the procedures in section 63.1260(h) of the 40 CFR. [40 CFR §63.1254(a)(2)(iv)]
 - * e. Emission streams that are undiluted and uncontrolled containing less than 50 ppmv HAP, as determined through process knowledge that no HAP are present in the emission stream or using an engineering assessment as discussed in §63.1257(d)(2)(ii), test data using Method 18 of 40 CFR, part 60, appendix A, or any other test method that has been validated according to the procedures in Method 301 of appendix A of this part, are not considered process vents. [40 CFR §63.1251]
 - * f. Emissions from elephant trunk lines that collect general ventilation inside the buildings for industrial hygiene purposes and are not routed to the thermal oxidizers because they do not contain HAP concentrations in excess of 50 ppm, are not considered process emissions, as long as they

comply with the requirements of the previous condition, according to section 63.1251 of the 40 CFR.

- * g. As included in the precompliance report, Bristol has determined that the air emissions from the drum wash stations are less than 50 ppmv, therefore they are not affected by the process vents provisions.
16. Planned routine maintenance, 40 CFR 63.1254(a)(4)- For each PMPU that is controlled with a CCCD, BMSMC-Barceloneta must comply with the provisions specified next during periods of planned routine maintenance of the CCCD. BMSMC-Barceloneta is not required to comply with the same provision for all of the PMPU's controlled by the CCCD.
- a. Shutdown the affected process. [40 CFR §63.1254(a)(4)(i)]
 - b. Comply with the requirements of section 63.1254(a)(1) through (3) by using other means. [40 CFR §63.1254(a)(4)(ii)]
 - c. For non-dedicated PMPU, implement the procedures described in section 63.1254(a)(4)(iii)(A) through section 63.1254(a)(4)(iii)(C) of the 40 CFR during planned routine maintenance for CCCD for those process vents that are normally controlled by the CCCD. This option is not available for process vents from dedicated PMPU's. [40 CFR §63.1254(a)(4)(iii)]

Standards: Equipment leaks (EULDAR1-MACT)

17. General Equipment Leak Requirements [40 CFR §63.1255(a)]
- a. The provisions of the 40 CFR §63.1255 apply to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, control devices, and closed-vent systems required by the 40 CFR Part 63 Subpart GGG that are dedicated to operate in organic hazardous air pollutant service 300 hours or more during the calendar year within a source subject to the provisions of the 40 CFR Part 63 Subpart GGG. [40 CFR §63.1255(a)(1)]
 - b. According to the 40 CFR §63.1255(a)(2), after the compliance date for a process, equipment subject to both section 63.1255 of the 40 CFR and either of the following, will only be required to comply with the provisions of subpart GGG:
 - (i) 40 CFR Part 60.
 - (ii) 40 CFR Part 61.

- c. The provisions in section 63.1(a)(3) of subpart A of part 63 do not alter the provisions in paragraph (a)(2) of section 63.1255. [40 CFR §63.1255(a)(4)]
- d. Lines and equipment not containing process fluids are not subject to the provisions of section 63.1255. Utilities, and other nonprocess lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not considered to be part of a process. [40 CFR §63.1255(a)(5)]
- e. The provisions of section 63.1255 do not apply to bench-scale¹¹ processes, regardless of whether the processes are located at the same plant site as a process subject to the provisions of 40 CFR part 63, subpart GGG. [40 CFR §63.1255(a)(6)]
- f. Equipment to which section 63.1255 applies shall be identified such that it can be distinguished readily from equipment that is not subject to section 63.1255. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, or by designation of process boundaries by some form of weatherproof identification. If changes are made to the affected source subject to the leak detection requirements, equipment identification for each type of component shall be updated, if needed, within 90 calendar days or by the next Periodic Report following the end of the monitoring period for that component, whichever is later. [40 CFR §63.1255(a)(7)]
- g. Equipment that is in vacuum service is excluded from the requirements of section 63.1255 of the 40 CFR. [40 CFR §63.1255(a)(8)]
- h. Equipment that is in organic hazardous air pollutants service, but is in such service less than 300 hours per calendar year, is excluded from the requirements of section 63.1255 if it is identified as required in paragraph (g)(9) of section 63.1255. [40 CFR §63.1255(a)(9)]
- i. Pursuant to 40 CFR §63.1255(a)(10), when each leak is detected by visual, audible, or olfactory means, or by monitoring as described in section 63.180(b) or (c), the following requirements apply:

¹¹ Bench-scale batch process means a batch process (other than a research and development facility) that is capable of being located on a laboratory bench top. This bench-scale equipment will typically include reagent feed vessels, a small reactor and associated product separator, recovery and holding equipment. These processes are only capable of producing small quantities of product.

- i. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. [40 CFR §63.1255(a)(10)(i)]
 - ii. The identification on a valve in light liquid or gas/vapor service may be removed after it has been monitored as specified in paragraph (e)(7)(iii) of section 63.1255, and no leak has been detected during the follow-up monitoring. [40 CFR §63.1255(a)(10)(ii)]
 - iii. The identification on equipment, except on a valve in light liquid or gas/vapor service, may be removed after it has been repaired. [40 CFR §63.1255(a)(10)(iii)]
- j. Except as provided in paragraph (a)(11)(i) of section 63.1255, all terms in this subpart GGG that define a period of time for completion of required tasks (e.g., weekly, monthly, quarterly, annual) refer to the standard calendar periods unless specified otherwise in the section or paragraph that imposes the requirement. [40 CFR §63.1255(a)(11)]
- i. If the initial compliance date does not coincide with the beginning of the standard calendar period, BSMC-Barceloneta may elect to utilize a period beginning on the compliance date, or may elect to comply in accordance with the provisions of paragraph (a)(11)(ii) or (iii) of section 63.1255 of the 40 CFR.
 - ii. Time periods specified in subpart GGG for completion of required tasks may be changed by mutual agreement between BSMC-Barceloneta and EQB and EPA, as specified in subpart A of part 63. For each time period that is changed by agreement, the revised period shall remain in effect until it is changed. A new request is not necessary for each recurring period. [40 CFR §63.1255(a)(11)(ii)]
 - iii. Except as provided in paragraph (a)(11)(i) or (ii) of section 63.1255, where the period specified for compliance is a standard calendar period, if the initial compliance date does not coincide with the beginning of the calendar period, compliance shall be required according to the schedule specified in paragraph (a)(11)(iii)(A) or (B) of section 63.1255, as appropriate. [40 CFR §63.1255(a)(11)(iii)]
 - (A) Compliance shall be required before the end of the standard calendar period within which the initial compliance date occurs if there remain at least 3 days for tasks that must be

performed weekly, at least 2 weeks for tasks that must be performed monthly, at least 1 month for tasks that must be performed each quarter, or at least 3 months for tasks that must be performed annually; or [40 CFR §63.1255(a)(11)(iii)(A)]

(B) In all other cases, compliance shall be required before the end of the first full standard calendar period after the period within which the initial compliance date occurs. [40 CFR §63.1255(a)(11)(iii)(B)]

iv. In all instances where a provision of subpart GGG requires completion of a task during each of multiple successive periods, BSMC-Barceloneta may perform the required task at any time during each period, provided the task is conducted at a reasonable interval after completion of the task during the previous period. [40 CFR §63.1255(a)(11)(iv)]

k. In all cases where the provisions of subpart GGG require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of section 63.1255 of the 40 CFR to fail to take action to repair the leaks within the specified time. If action is taken to repair the leaks within the specified time, failure of that action to successfully repair the leak is not a violation of section 63.1255 of the 40 CFR. However, if the repairs are unsuccessful, a leak is detected and the owner or operator shall take further action as required by applicable provisions of section 63.1255 of the 40 CFR. [40 CFR §63.1255(a)(12)]

18. References.

a. The owner or operator of a source subject to section 63.1255 shall comply with the provisions of subpart H of part 63, as specified in paragraphs (b)(2) through (4) of section 63.1255. The term “process unit” as used in subpart H of Part 63 shall be considered to be defined the same as “group of processes” for sources subject to subpart GGG. The term “fuel gas system”, as used in subpart H of Part 63, shall not apply for the purposes of subpart GGG. [40 CFR §63.1255(b)(1)]

b. Sections 63.160, 63.161, 63.162, 63.163, 63.167, 63.168, 63.170, 63.173, 63.175, 63.176, 63.181 and 63.182 shall not apply for the purposes of subpart GGG. BSMC-Barceloneta shall comply with the provisions specified in paragraphs (b)(2)(i) through (viii) of section 63.1255. [40 CFR §63.1255(b)(2)]

- i. Sections 63.160 and 63.162 shall not apply; instead, BSMC-Barceloneta shall comply with paragraph (a) of section 63.1255 of the 40 CFR; [40 CFR §63.1255(b)(2)(i)]
 - ii. Section 63.161 shall not apply; instead, BSMC-Barceloneta shall comply with section 63.1251 of the 40 CFR; [40 CFR §63.1255(b)(2)(ii)]
 - iii. Sections 63.163 and 63.173 shall not apply; instead, BSMC-Barceloneta shall comply with paragraph (c) of section 63.1255 of the 40 CFR; [40 CFR §63.1255(b)(2)(iii)]
 - iv. Section 63.167 shall not apply; instead, BSMC-Barceloneta shall comply with paragraph (d) of section 63.1255 of the 40 CFR; [40 CFR §63.1255(b)(2)(iv)]
 - v. Section 63.168 shall not apply; instead, BSMC-Barceloneta shall comply with el paragraph (e) of section 63.1255 of the 40 CFR; [40 CFR §63.1255(b)(2)(v)]
 - vi. Section 63.170 shall not apply; instead, BSMC-Barceloneta shall comply with section 63.1254 of the 40 CFR; [40 CFR §63.1255(b)(2)(vi)]
 - vii. Section 63.181 shall not apply; instead, BSMC-Barceloneta shall comply with el paragraph (g) of section 63.1255 of the 40 CFR; and [40 CFR §63.1255(b)(2)(vii)]
 - viii. Section 63.182 shall not apply; instead, BSMC-Barceloneta shall comply with el paragraph (h) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(b)(2)(viii)]
- c. BSMC-Barceloneta shall comply with sections 63.164, 63.165, 63.166, 63.169, 63.177 and 63.179 in their entirety, except that when these sections reference other sections of subpart H of part 63, the references shall mean the sections specified in paragraphs (b)(2) and (4) of section 63.1255. Section 63.164 applies to compressors. Section 63.165 applies to pressure relief devices in gas/vapor service. Section 63.166 applies to sampling connection systems. Section 63.169 applies to pumps, valves, connectors and agitators in heavy liquid service; instrumentation systems and pressure relief devices in liquid service. Section 63.177 applies to general alternative means of emission limitation. Section 63.179 applies to alternative means of emission limitation for enclosed-vented process. [40 CFR §63.1255(b)(3)]

- d. BMSMC-Barceloneta shall comply with sections 63.171, 63.172, 63.174, 63.178, and 63.180, except as specified in paragraphs (b)(4)(i) through (vi) of section 63.1255. [40 CFR §63.1255(b)(4)]
 - i. Section 63.171 shall apply, except §63.171(a) shall not apply. Instead, delay of repair of equipment for which leaks have been detected is allowed if one of the conditions in the following paragraphs (d)(i)(A) through (B) exists:
 - (A) The repair is technically infeasible without a process shutdown. Repair of this equipment shall occur by the end of the next scheduled process shutdown. [40 CFR §63.1255(b)(4)(i)(A)]
 - (B) BMSMC-Barceloneta determines that repair personnel would be exposed to an immediate danger if attempting to repair without a process shutdown. Repair of this equipment shall occur by the end of the next scheduled process shutdown. [40 CFR §63.1255(b)(4)(i)(B)]
 - ii. Section 63.172 shall apply for closed-vent systems used to comply with section 63.1255, and for control devices used to comply with section 63.1255 only, except:
 - (A) Section 63.172(k) and (l) shall not apply. BMSMC-Barceloneta shall instead comply with paragraph (f) of section 63.1255. [40 CFR §63.1255(b)(4)(ii)(A)]
 - (B) BMSMC-Barceloneta may, instead of complying with the provisions of §63.172(f), design a closed-vent system to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gage or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the associated control device is operating. [40 CFR §63.1255(b)(4)(ii)(B)]
 - (C) The requirements apply at all times, except as specified in §63.1250(g). BMSMC-Barceloneta may not comply with the planned routine maintenance provisions in §63.1252(h). [40 CFR §63.1255(b)(4)(ii)(C)]

- iii. Section 63.174 shall apply except:
- (A) Section 63.174(f), (g), and (h) shall not apply. Instead of §63.174(f), (g), and (h), BMSMC-Barceloneta shall comply with paragraph (f) of section 63.1255. Section 63.174(b)(3) shall not apply. Instead of §63.174(b)(3), BMSMC-Barceloneta shall comply with paragraphs (b)(4)(iii)(B) through (F) of section 63.1255. [40 CFR §63.1255(b)(4)(iii)(A)]
 - (B) If the percent leaking connectors in a group of processes was greater than or equal to 0.5% during the initial monitoring period, monitoring shall be performed once per year until the percent leaking connectors is less than 0.5%. [40 CFR §63.1255(b)(4)(iii)(B)]
 - (C) If the percent leaking connectors in the group of processes was less than 0.5%, but equal to or greater than 0.25%, during the initial or last required monitoring period, BMSMC-Barceloneta may elect to monitor once every four years. An owner or operator may comply with the requirements of paragraph (b)(4)(iii)(C) of section 63.1255 by monitoring at least 40% of the connectors in the first 2 years and the remainder of the connectors within the next 2 years. The percent leaking connectors will be calculated for the total of all required monitoring performed during the 4-year period. [40 CFR §63.1255(b)(4)(iii)(C)]
 - (D) Except as provided in paragraph (b)(4)(iii)(B) of section 63.1255, if leaking connectors comprise at least 0.5 % but less than 1.0 % of the connectors during the last monitoring period, BMSMC-Barceloneta shall monitor at least once every 2 years for the next monitoring period. At the end of that 2-year monitoring period, if the percent leaking connectors is greater than or equal to 0.5%, BMSMC-Barceloneta shall monitor once per year until the percent leaking connectors is less than 0.5%. If, at the end of a monitoring period, the percent leaking connectors is less than 0.5%, BMSMC-Barceloneta shall monitor in accordance with paragraph (b)(4)(iii)(C) or (F) of section 63.1255, as appropriate. [40 CFR §63.1255(b)(4)(iii)(D)]
 - (E) If BMSMC-Barceloneta determines that 1% or greater of the connectors in a group of processes are leaking, BMSMC-Barceloneta shall monitor the connectors once

per year. BSMC-Barceloneta may elect to use the provisions of paragraph (b)(4)(iii)(C), (D), or (F) of section 63.1255, as appropriate, after a monitoring period in which less than 1% of the connectors are determined to be leaking. [40 CFR §63.1255(b)(4)(iii)(E)]

(F) BSMC-Barceloneta may elect to perform monitoring once every 8 years if the percent leaking connectors in the group of processes was less than 0.25% during the initial or last required monitoring period. BSMC-Barceloneta shall monitor at least 50% of the connectors in the first 4 years and the remainder of the connectors within the next 4 years. If the percent leaking connectors in the first 4 years is equal to or greater than 0.35%, the monitoring program shall revert at that time to the appropriate monitoring frequency specified in paragraph (b)(4)(iii)(C), (D), or (E) of section 63.1255. [40 CFR §63.1255(b)(4)(iii)(F)]

iv. Section 63.178 shall apply except:

(A) Section 63.178(b), requirements for pressure testing, may be applied to all processes (not just batch processes) and to supply lines between storage and processing areas. [40 CFR §63.1255(b)(4)(iv)(A)]

(B) For pumps, the phrase “at the frequencies specified in Table 1 of subpart GGG” in §63.178(c)(3)(iii) shall mean “quarterly” for the purposes of subpart GGG. [40 CFR §63.1255(b)(4)(iv)(B)]

i. Section 63.180 shall apply except §63.180(b)(4)(ii)(A) through (C) shall not apply. Instead, calibration gases shall be a mixture of methane and air at a concentration of approximately, but less than, 10,000 parts per million methane for agitators; 2,000 parts per million for pumps; and 500 parts per million for all other equipment, except as provided in section 63.180(b)(4)(iii). [40 CFR §63.1255(b)(4)(v)]

ii. When sections 63.171, 63.172, 63.174, 63.178, and 63.180 reference other sections in subpart H of part 63, the references shall mean those sections specified in paragraphs (b)(2) and (b)(4)(i) through (v) of section 63.1255, as applicable. [40 CFR §63.1255(b)(4)(vi)]

19. Standards for pumps in light liquid service and agitators in gas/vapor service and in light liquid service [40 CFR §63.1255(c)]
- a. The provisions of section 63.1255 of the 40 CFR apply to each pump that is in light organic HAP liquid service, and to each agitator in organic HAP gas/vapor service or in light organic HAP liquid service. [40 CFR §63.1255(c)(1)]
 - b.
 - i. Monitoring. Each pump and agitator subject to section 63.1255 shall be monitored quarterly to detect leaks by the method specified in §63.180(b) except as provided in sections 63.177, 63.178, paragraph (f) of section 63.1255, and paragraphs (c)(5) through (9) of section 63.1255. [40 CFR §63.1255(c)(2)(i)]
 - ii. Leak definition - According to the 40 CFR §63.1255(c)(2)(ii), the instrument reading, as determined by the method as specified in section 63.180(b), that defines a leak is:
 - (A) For agitators, an instrument reading of 10,000 ppm or greater. [40 CFR §63.1255(c)(2)(ii)(A)]
 - (B) For pumps, an instrument reading of 2,000 ppm or greater. [40 CFR §63.1255(c)(2)(ii)(B)]
 - iii. Visual Inspections - Each pump and agitator shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump or agitator seal. If there are indications of liquids dripping from the pump or agitator seal at the time of the weekly inspection, BSMC-Barceloneta shall follow the procedure specified in either paragraph (c)(2)(iii)(A) or (B) of section 63.1255 of the 40 CFR prior to the next weekly inspection: [40 CFR §63.1255(C)(2)(iii)]
 - (A) BSMC-Barceloneta shall monitor the pump or agitator by the method specified in the 63.180(b). If the instrument reading indicates a leak as specified in §63.1255(c)(2)(ii), a leak is detected. [40 CFR §63.1255(c)(2)(iii)(A)]
 - (B) BSMC-Barceloneta shall eliminate the visual indications of liquids dripping. [40 CFR §63.1255(c)(2)(iii)(B)]
 - c. Repair provisions [40 CFR §63.1255(c)(3)]
 - i. When a leak is detected pursuant to paragraph (c)(2)(i), (c)(2)(iii)(A), (c)(5)(iv)(A), or (c)(5)(vi)(B) of section 63.1255, it

shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in paragraph (b)(4)(i) of section 63.1255. [40 CFR §63.1255(c)(3)(i)]

ii. According to the 40 CFR §63.1255(c)(3)(ii), a first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable:

(A) Tightening of packing gland nuts. [40 CFR §63.1255(c)(3)(ii)(A)]

(B) Ensuring that the seal flush is operating at design pressure and temperature. [40 CFR §63.1255(c)(3)(ii)(B)]

d. Calculation of percent leakers [40 CFR §63.1255(c)(4)]

i. BMSMC-Barceloneta shall decide no later than the end of the first monitoring period what groups of processes will be developed. Once BMSMC-Barceloneta has decided, all subsequent percent calculations shall be made on the same basis. [40 CFR §63.1255(c)(4)(i)]

ii. BMSMC-Barceloneta shall monitor each pump once per month, until the calculated 1-year rolling average value drops below 10% or three pumps, as applicable if, calculated on a 1-year rolling average, the greater of either 10% or three of the pumps in a group of processes leak. [40 CFR §63.1255(c)(4)(ii)]

iii. The number of pumps in a group of processes shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process within 1 quarter after startup of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only. [40 CFR §63.1255(c)(4)(iii)]

iv. According to the 40 CFR §63.1255(c)(4)(iv), percent leaking pumps shall be determined by the following equation:

$$\%P_L = [(P_L - P_S) / (P_T - P_S)] * 100, \text{ where}$$

$\%P_L$ = percent leaking pumps.

P_L = number of pumps found leaking as determined through periodic monitoring as required in paragraphs (c)(2)(i) and (ii) of section 63.1255.

P_T = total pumps in organic HAP service, including those meeting the criteria in paragraphs (c)(5) and (6) of section 63.1255.

P_S = number of pumps in a continuous process leaking within 1 quarter of startup during the current monitoring period.

- e. Exemptions - According to the 40 CFR §63.1255(c)(5), each pump or agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraphs (c)(1) through (c)(4)(iii) of section 63.1255, provided the following requirements are met:
- i. Each dual mechanical seal system is:
 - (A) Operated with the barrier fluid at a pressure that is at all times greater than the pump/agitator stuffing box pressure; or [40 CFR §63.1255(c)(5)(i)(A)]
 - (B) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of paragraph (b)(4)(ii) of section 63.1255; or [40 CFR §63.1255(c)(5)(i)(B)]
 - (C) Equipped with a closed-loop system that purges the barrier fluid into a process stream. [40 CFR §63.1255(c)(5)(i)(C)]
 - ii. The barrier fluid is not in light liquid service. [40 CFR §63.1255(c)(5)(ii)]
 - iii. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. [40 CFR §63.1255(c)(5)(iii)]
 - iv. Each pump/agitator is checked by visual inspection each calendar week for indications of liquids dripping from the pump/agitator seal. If there are indications of liquids dripping from the pump or agitator seal at the time of the weekly inspection, BMSMC-Barceloneta shall follow the procedures specified in either paragraph (c)(5)(iv)(A) or (B) of section 63.1255 prior to the next required inspection. [40 CFR §63.1255(c)(5)(iv)]
 - (A) BMSMC-Barceloneta shall monitor the pump or agitator using the method specified in §63.180(b) to determine if there is a leak of organic HAP in the barrier fluid. If the

instrument reading indicates a leak, as specified in paragraph (c)(2)(ii) of section 63.1255, a leak is detected. [40 CFR §63.1255(c)(5)(iv)(A)]

- (B) BMSMC-Barceloneta shall eliminate the visual indications of liquids dripping. [40 CFR §63.1255(c)(5)(iv)(B)]
- v. Each sensor as described in paragraph (c)(5)(iii) of section 63.1255 is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site. [40 CFR §63.1255(c)(5)(v)]
- vi.
 - (A) BMSMC-Barceloneta determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicate failure of the seal system, the barrier fluid system, or both. [40 CFR §63.1255(c)(5)(vi)(A)]
 - (B) A leak is detected if indications of liquids dripping from the pump/agitator seal exceed the criteria established in paragraph (c)(5)(vi)(A) of section 63.1255, or if, based on the criteria established in paragraph (c)(5)(vi)(A) of section 63.1255, the sensor indicates failure of the seal system, the barrier fluid system, or both. [40 CFR §63.1255(c)(5)(vi)(B)]
- vii. When a leak is detected pursuant to paragraph (c)(5)(iv)(A) or (B) of section 63.1255, the leak must be repaired as specified in paragraph (c)(3) of section 63.1255. [40 CFR §63.1255(c)(5)(vii)]
- f. Any pump/agitator that is designed with no externally actuated shaft penetrating the pump/agitator housing is exempt from the requirements of paragraphs (c)(1) through (3) of section 63.1255. [40 CFR §63.1255(c)(6)]
- g. Any pump/agitator equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals back to the process or to a control device that complies with the requirements of paragraph (b)(4)(ii) of section 63.1255 is exempt from the requirements of paragraphs (c)(2) through (5) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(c)(7)]
- h. Any pump/agitator that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (c)(2)(iii) and (c)(5)(iv) of section 63.1255, and the daily requirements of paragraph (c)(5)(v) of section 63.1255, provided that each

pump/agitator is visually inspected as often as practicable and at least monthly. [40 CFR §63.1255(c)(8)]

- i. If more than 90% of the pumps in a group of processes meet the criteria in either paragraph (c)(5) or (6) of section 63.1255, the group of processes is exempt from the requirements of paragraph (c)(4) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(c)(9)]

20. Standards: Open-Ended Valves or Lines [40 CFR §63.1255(c)(9)]

- a.
 - i. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in section 63.177 of the 40 CFR and paragraphs (d)(4) through (6) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(d)(1)(i)]
 - ii. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair. The cap, blind flange, plug, or second valve shall be in place within 1 hour of cessation of operations requiring process fluid flow through the open-ended valve or line, or within 1 hour of cessation of maintenance or repair. The owner or operator is not required to keep a record documenting compliance with the 1-hour requirement. [40 CFR §63.1255(d)(1)(ii)]
- b. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR §63.1255(d)(2)]
- c. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (d)(1) of section 63.1255 at all other times. [40 CFR §63.1255(d)(3)]
- d. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (d)(1) through (d)(3) of section 63.1255. [40 CFR §63.1255(d)(4)]
- e. Open-ended valves or lines containing materials which would autocatalytically polymerize are exempt from the requirements of paragraphs (d)(1) through (d)(3) of section 63.1255. [40 CFR §63.1255(d)(5)]

- f. Open-ended valves or lines containing materials which could cause an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (d)(1) through (d)(3) of section 63.1255 are exempt from the requirements of paragraphs (d)(1) through (d)(3) of section 63.1255. [40 CFR §63.1255(d)(6)]
21. Standards: Valves in Gas/Vapor Service and in Light Liquid Service [40 CFR §63.1255(e)]
- a. The provisions of section 63.1255 apply to valves that are either in gas organic HAP service or in light liquid organic HAP service. [40 CFR §63.1255(e)(1)]
 - b. For existing and new affected sources, all valves subject to section 63.1255 shall be monitored, except as provided in paragraph (f) of section 63.1255 and in section 63.177, by no later than 1 year after the compliance date. [40 CFR §63.1255(e)(2)]
 - c. Monitoring. According to the 40 CFR §63.1255(e)(3), the owner or operator of a source subject to section 63.1255 shall monitor all valves, except as provided in paragraph (f) of section 63.1255 and in section 63.177, at the intervals specified in paragraph (e)(4) of section 63.1255 and shall comply with all other provisions of section 63.1255, except as provided in paragraph (b)(4)(i) of section 63.1255, sections 63.178 and 63.179.
 - i. The valves shall be monitored to detect leaks by the method specified in section 63.180(b). [40 CFR §63.1255(e)(3)(i)]
 - ii. An instrument reading of 500 parts per million or greater defines a leak. [40 CFR §63.1255(e)(3)(ii)]
 - d. Subsequent monitoring frequencies. Pursuant to the 40 CFR §63.1255(e)(4), after conducting the initial survey required in paragraph (e)(2) of section 63.1255, BMSMC-Barceloneta shall monitor valves for leaks at the intervals specified below:
 - i. For a group of processes with 2% or greater leaking valves, calculated according to paragraph (e)(6) of section 63.1255, BMSMC-Barceloneta shall monitor each valve once per month, except as specified in paragraph (e)(9) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(e)(4)(i)]

- ii. For a group of processes with less than 2% leaking valves, BMSMC-Barceloneta shall monitor each valve once each quarter, except as provided in paragraphs (e)(4)(iii) through (e)(4)(v) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(e)(4)(ii)]
 - iii. For a group of processes with less than 1% leaking valves, BMSMC-Barceloneta may elect to monitor each valve once every 2 quarters (every six months). [40 CFR §63.1255(e)(4)(iii)]
 - iv. For a group of processes with less than 0.5% leaking valves, the BMSMC-Barceloneta may elect to monitor each valve once every 4 quarters (every 12 months). [40 CFR §63.1255(e)(4)(iv)]
 - v. For a group of processes with less than 0.25% leaking valves, the BMSMC-Barceloneta may elect to monitor each valve once every 2 years. [40 CFR §63.1255(e)(4)(v)]
- e. Calculation of percent leakers. According to the 40 CFR §63.1255(e)(5), for a group of processes to which subpart GGG applies, BMSMC-Barceloneta may choose to subdivide the valves in the applicable group of processes and apply the provisions of paragraph (e)(4) of section 63.1255 to each subgroup. If BMSMC-Barceloneta elects to subdivide the valves in the applicable group of processes, then the provisions of paragraphs (e)(5)(i) through (e)(5)(viii) of section 63.1255 apply.
- i. The overall performance of total valves in the applicable group of processes must be less than 2% leaking valves, as detected according to paragraphs (e)(3) (i) and (ii) of section 63.1255 and as calculated according to paragraphs (e)(6) (ii) and (iii) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(e)(5)(i)]
 - ii. The initial assignment or subsequent reassignment of valves to subgroups shall be governed by the provisions of paragraphs (e)(5)(ii) (A) through (C) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(e)(5)(ii)]
 - (A) BMSMC-Barceloneta shall determine which valves are assigned to each subgroup. Valves with less than 1 year of monitoring data or valves not monitored within the last 12 months must be placed initially into the most frequently monitored subgroup until at least 1 year of monitoring data has been obtained. [40 CFR §63.1255(e)(5)(ii)(A)]
 - (B) Any valve or group of valves can be reassigned from a less frequently monitored subgroup to a more frequently

monitored subgroup provided that the valves to be reassigned were monitored during the most recent monitoring period for the less frequently monitored subgroup. The monitoring results must be included with the less frequently monitored subgroup's monitoring event and associated next percent leaking valves calculation for that group. [40 CFR §63.1255(e)(5)(ii)(B)]

(C) Any valve or group of valves can be reassigned from a more frequently monitored subgroup to a less frequently monitored subgroup provided that the valves to be reassigned have not leaked for the period of the less frequently monitored subgroup (e.g., for the last 12 months, if the valve or group of valves is to be reassigned to a subgroup being monitored annually). Nonrepairable valves may not be reassigned to a less frequently monitored subgroup. [40 CFR §63.1255(e)(5)(ii)(C)]

iii. According to §63.1255(e)(5)(iii) of the 40 CFR, BSMC-Barceloneta shall determine every 6 months if the overall performance of total valves in the applicable group of processes is less than 2% leaking valves and so indicate the performance in the next periodic report. If the overall performance of total valves in the applicable group of processes is 2% leaking valves or greater, BSMC-Barceloneta shall revert to the program required in paragraphs (e)(2) through (e)(4) of section 63.1255 of the 40 CFR. The overall performance of total valves in the applicable group of processes shall be calculated as a weighted average of the percent leaking valves of each subgroup according to the following equation:

$$\%V_{LO} = \frac{\sum_{i=1}^n (\%V_{Li} \times V_i)}{\sum_{i=1}^n V_i}$$

where:

$\%V_{LO}$ = overall performance of total valves in the applicable process or group of processes

$\%V_{Li}$ = percent leaking valves in subgroup i, most recent value calculated according to the procedures in paragraphs (e)(6)(ii) and (iii) of section 63.1255.

V_i = number of valves in subgroup i

n = number of subgroups

- iv. Records [40 CFR §63.1255(e)(5)(iv)] - In addition to records required by paragraph (g) of section 63.1255 of the 40 CFR, BMSMC-Barceloneta shall maintain records specified in paragraphs (e)(5)(iv)(A) through (D) of section 63.1255 of the 40 CFR.
 - (A) Which valves are assigned to each subgroup, [40 CFR §63.1255(e)(5)(iv)(A)]
 - (B) Monitoring results and calculations made for each subgroup for each monitoring period, [40 CFR §63.1255(e)(5)(iv)(B)]
 - (C) Which valves are reassigned and when they were reassigned, and [40 CFR §63.1255(e)(5)(iv)(C)]
 - (D) The results of the semiannual overall performance calculation required in paragraph (e)(5)(iii) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(e)(5)(iv)(D)]
- v. BMSMC-Barceloneta shall notify the Board and EPA no later than 30 days prior to the beginning of the next monitoring period of the decision to subgroup valves. The notification shall identify the participating processes and the valves assigned to each subgroup. [40 CFR §63.1255(e)(5)(v)]
- vi. Semiannual reports - In addition to the information required by paragraph (h)(3) of section 63.1255, BMSMC-Barceloneta shall submit in the periodic reports the information specified in paragraphs (e)(5)(vi)(A) and (B) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(e)(5)(vi)]
 - (A) Valve reassignments occurring during the reporting period, and [40 CFR §63.1255(e)(5)(vi)(A)]
 - (B) Results of the semi-annual overall performance calculation required by paragraph (e)(5)(iii) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(e)(5)(vi)(B)]

- vii. To determine the monitoring frequency for each subgroup, the calculation procedures of paragraph (e)(6)(iii) of section 63.1255 of the 40 CFR shall be used. [40 CFR §63.1255(e)(5)(vii)]
 - viii. Except for the overall performance calculations required by paragraphs (e)(5)(i) and (e)(5)(iii) of section 63.1255 of the 40 CFR, each subgroup shall be treated as if it were a process for the purposes of applying the provisions of section 63.1255 of the 40 CFR. [40 CFR §63.1255(e)(5)(viii)]
- f.
- i. BMSMC-Barceloneta shall decide no later than the implementation date of subpart GGG or upon revision of an operating permit how to group the processes. Once BMSMC-Barceloneta has decided, all subsequent percentage calculations shall be made on the same basis. [40 CFR §63.1255(e)(6)(i)]
 - ii. According to the 40 CFR §63.1255(e)(6)(ii), the percent leaking valves for each group of processes or subgroup shall be determined by the following equation:

$$\%V_L = [V_L/V_T] \times 100$$

where:

$\%V_L$ = percent leaking valves as determined through periodic monitoring required in paragraphs (e)(2) through (4) of section 63.1255 of the 40 CFR.

V_L = number of leaking valves, excluding non-repairable valves as provided in paragraph (e)(6)(iv)(A) of section 63.1255 of the 40 CFR.

V_T = total valves monitored, in a monitoring period excluding valves monitored as required by (e)(7)(iii) of section 63.1255 of the 40 CFR.

- iii. When determining monitoring frequency for each group of processes or subgroup subject to monthly, quarterly, or semiannual monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last two monitoring periods. When determining monitoring frequency for each group of processes or subgroup subject to annual or biennial (once every two years) monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves

from the last three monitoring periods. [40 CFR §63.1255(e)(6)(iii)]

- iv. (A) Nonrepairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with paragraph (e)(6)(iv)(B) of section 63.1255. Otherwise, a number of nonrepairable valves (identified and included in the percent leaking calculation in a previous period) up to a maximum of 1% of the total number of valves in organic HAP service at a process may be excluded from calculation of percent leaking valves for subsequent monitoring periods. [40 CFR §63.1255(e)(6)(iv)(A)]
- (B) If the number of nonrepairable valves exceeds 1% of the total number of valves in organic HAP service at a process, the number of nonrepairable valves exceeding 1% of the total number of valves in organic HAP service shall be included in the calculation of percent leaking valves. [40 CFR §63.1255(e)(6)(iv)(B)]

g. Repair provisions [40 CFR §63.1255(e)(7)]

- i. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in paragraph (b)(4)(i) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(e)(7)(i)]
- ii. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR §63.1255(e)(7)(ii)]
- iii. When a leak is repaired, the valve shall be monitored at least once within the first 3 months after its repair. Days that the valve is not in organic HAP service shall not be considered part of this 3-month period. The monitoring required by this paragraph is in addition to the monitoring required to satisfy the definitions of “repaired¹²” and “first attempt at repair¹³” [40 CFR §63.1255(e)(7)(iii)]

¹² Repaired means that equipment is adjusted, or otherwise altered, to eliminate a leak as defined in the applicable paragraphs of §63.1255, and is unless otherwise specified in applicable provisions of §63.1255, monitored as specified in §63.180(b) and (c) as appropriate, to verify that emissions from the equipment are below the applicable leak definition. [40 CFR §63.1251]

¹³ *First attempt at repair* means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere. [40 CFR §63.1251]

- (A) The monitoring shall be conducted as specified in §63.180(b) and (c) as appropriate to determine whether the valve has resumed leaking. [40 CFR §63.1255(e)(7)(iii)(A)]
 - (B) Monitoring required by paragraphs (e)(2) through (4) of section 63.1255 may be used to satisfy the requirements of paragraph (e)(7)(iii) of section 63.1255, if the timing of the monitoring period coincides with the time specified in paragraph (e)(7)(iii) of section 63.1255. Alternatively, other monitoring may be performed to satisfy the requirements of paragraph (e)(7)(iii) of section 63.1255, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in paragraph (e)(7)(iii) of section 63.1255 del 40 CFR. [40 CFR §63.1255(e)(7)(iii)(B)]
 - (C) If a leak is detected by monitoring that is conducted pursuant to paragraph (e)(7)(iii) of section 63.1255, BMSMC-Barceloneta shall follow the provisions of paragraphs (e)(7)(iii)(C)(1) and (2) of section 63.1255 to determine whether that valve must be counted as a leaking valve for purposes of paragraph (e)(6) of section 63.1255 del 40 CFR. [40 CFR §63.1255(e)(7)(iii)(C)]
 - (1) If BMSMC-Barceloneta elects to use periodic monitoring required by paragraphs (e)(2) through (4) of section 63.1255 to satisfy the requirements of paragraph (e)(7)(iii) of section 63.1255, then the valve shall be counted as a leaking valve. [40 CFR §63.1255(e)(7)(iii)(C)(1)]
 - (2) If BMSMC-Barceloneta elects to use other monitoring prior to the periodic monitoring required by paragraphs (e)(2) through (4) of section 63.1255 to satisfy the requirements of paragraph (e)(7)(iii) of section 63.1255, then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking. [40 CFR §63.1255(e)(7)(iii)(C)(2)]
- h. According to the 40 CFR §63.1255(e)(8), the first attempts at repair include, but are not limited to, the following practices where practicable:
- i. Tightening of bonnet bolts,

- ii. Replacement of bonnet bolts,
 - iii. Tightening of packing gland nuts, and
 - iv. Injection of lubricant into lubricated packing.
- i. Any equipment located at a plant site with fewer than 250 valves in organic HAP service in the affected source is exempt from the requirements for monthly monitoring specified in paragraph (e)(4)(i) of section 63.1255. Instead, BMSMC-Barceloneta shall monitor each valve in organic HAP service for leaks once each quarter, or comply with paragraph (e)(4)(iii), (iv), or (v) of section 63.1255, except as provided in paragraph (f) of section 63.1255. [40 CFR §63.1255(e)(9)]
22. Unsafe to monitor/inspect, difficult to monitor/inspect, and inaccessible equipment [40 CFR §63.1255(f)]
- a. According to the 40 CFR §63.1255(f)(1), equipment that is designated as unsafe to monitor, unsafe to inspect, difficult to monitor, difficult to inspect, or inaccessible is exempt from the monitoring requirements as specified in paragraphs (f)(1)(i) through (iv) of section 63.1255 of the 40 CFR provided that BMSMC-Barceloneta meets the requirements specified in paragraph (f)(2), (3), or (4) of section 63.1255 of the 40 CFR, as applicable. All equipment must be assigned to a group of processes. Ceramic or ceramic-lined connectors are subject to the same requirements as inaccessible connectors.
 - i. For pumps and agitators, paragraphs (c)(2), (3), and (4) of section 63.1255 do not apply. [40 CFR §63.1255(f)(1)(i)]
 - ii. For valves, paragraphs (e)(2) through (7) of section 63.1255 of the 40 CFR do not apply. [40 CFR §63.1255(f)(1)(ii)]
 - iii. For connectors, §63.174(b) through (e) and paragraphs (b)(4)(iii)(B) through (F) of section 63.1255 of the 40 CFR do not apply. [40 CFR §63.1255(f)(1)(iii)]
 - iv. For closed-vent systems, §63.172(f)(1) and (2) and §63.172(g) of the 40 CFR do not apply. [40 CFR §63.1255(f)(1)(iv)]

- b. Equipment that is unsafe to monitor or unsafe to inspect [40 CFR §63.1255(f)(2)]
- i. Valves, connectors, agitators, and pumps may be designated as unsafe to monitor if the BSMC-Barceloneta determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements referred to in paragraphs (f)(1)(i) through (iii) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(f)(2)(i)]
 - ii. Any part of a closed-vent system may be designated as unsafe to inspect if the owner or operator determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements referred to in paragraph (f)(1)(iv) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(f)(2)(ii)]
 - iii. The owner or operator of equipment that is designated as unsafe to monitor must have a written plan that requires monitoring of the equipment as frequently as practicable during safe to monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable to the group of processes in which the equipment is located. [40 CFR §63.1255(f)(2)(iii)]
 - iv. For any parts of a closed-vent system designated as unsafe to inspect, BSMC-Barceloneta must have a written plan that requires inspection of the closed-vent systems as frequently as practicable during safe to inspect times, but not more frequently than annually. [40 CFR §63.1255(f)(2)(iv)]
- c. Equipment that is difficult to monitor or difficult to inspect [40 CFR §63.1255(f)(3)]
- i. A valve, agitator, or pump may be designated as difficult to monitor if BSMC-Barceloneta determines that the valve, agitator, or pump cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface, or it is not accessible in a safe manner when it is in organic HAP service. [40 CFR §63.1255(f)(3)(i)]
 - ii. Any part of a closed-vent system may be designated as difficult to inspect if BSMC-Barceloneta determines that the equipment cannot be inspected without elevating the monitoring personnel more than 2 meters above a support surface, or it is not accessible

in a safe manner when it is in organic HAP service. [40 CFR §63.1255(f)(3)(ii)]

- iii. At an existing source, any valve, agitator or pump within a group of processes that meets the criteria of paragraph (f)(3)(i) of section 63.1255 may be designated as difficult to monitor, and any parts of a closed-vent system that meet the requirements of paragraph (f)(3)(ii) of section 63.1255 may be designated as difficult to inspect. At a new affected source, BSMC-Barceloneta may designate no more than 3% of valves as difficult to monitor. [40 CFR §63.1255(f)(3)(iii)]
- iv. The owner or operator of valves, agitators, or pumps designated as difficult to monitor must have a written plan that requires monitoring of the equipment at least once per calendar year or on the periodic monitoring schedule otherwise applicable to the group of processes in which the equipment is located, whichever is less frequent. For any part of a closed-vent system designated as difficult to inspect, BSMC-Barceloneta must have a written plan that requires inspection of the closed-vent system at least once every 5 years. [40 CFR §63.1255(f)(3)(iv)]

d. Equipment that is inaccessible and ceramic or ceramic lines connectors
[40 CFR §63.1255(f)(4)]

- i. According to the 40 CFR §63.1255(f)(4)(i), a connector may be designated as inaccessible if it is:
 - (A) Buried;
 - (B) Insulated in a manner that prevents access to the connector by a monitor probe;
 - (C) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;
 - (D) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold which would allow access to equipment up to 7.6 meters (25 feet) above the ground; or
 - (E) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would

require near proximity to hazards such as electrical lines, or would risk damage to equipment.

- ii. A connector may be designated as inaccessible if it would require elevating the monitoring personnel more than 2 meters above a permanent support surface or would require the erection of scaffold. [40 CFR §63.1255(f)(4)(ii)]
- iii. At an existing source, any connector that meets the criteria of paragraph (f)(4)(i) or (ii) of section 63.1255 may be designated as inaccessible. At a new affected source, BMSMC-Barceloneta may designate no more than 3 % of connectors as inaccessible. [40 CFR §63.1255(f)(4)(iii)]
- iv. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the leak shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in paragraph (b)(4)(i) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(f)(4)(iv)]
- v. Any connector that is inaccessible or that is ceramic or ceramic-lined is exempt from the recordkeeping and reporting requirements of paragraphs (g) and (h) of section 63.1255. [40 CFR §63.1255(f)(4)(v)]

23. Recordkeeping Requirements [40 CFR §63.1255(g)]

- a. An owner or operator of more than one group of processes subject to the provisions of section 63.1255 of the 40 CFR may comply with the recordkeeping requirements for the groups of processes in one recordkeeping system if the system identifies with each record the program being implemented (e.g., quarterly monitoring) for each type of equipment. All records and information required by section 63.1255 of the 40 CFR shall be maintained in a manner that can be readily accessed at the plant site. This could include physically locating the records at the plant site or accessing the records from a central location by computer at the plant site. [40 CFR §63.1255(g)(1)]
- b. General recordkeeping - According to the 40 CFR §63.1255(g)(2), except as provided in paragraph (g)(5)(i) of section 63.1255 and in paragraph (a)(9) of section 63.1255, the following information pertaining to all equipment subject to the requirements in section 63.1255 shall be recorded:

- i. (A) A list of identification numbers for equipment (except connectors that are subject to paragraph (f)(4) of section 63.1255) subject to the requirements of section 63.1255. Except for equipment subject to the recordkeeping requirements in paragraphs (g)(2)(ii) through (viii) of section 63.1255, equipment need not be individually identified if, for a particular type of equipment, all items of that equipment in a designated area or length of pipe subject to the provisions of section 63.1255 are identified as a group, and the number of subject items of equipment is indicated. The list for each type of equipment shall be completed no later than the completion of the initial survey required for that component. The list of identification numbers shall be updated, if needed, to incorporate equipment changes identified during the course of each monitoring period within 90 calendar days, or by the next Periodic Report, following the end of the monitoring period for the type of equipment component monitored, whichever is later. [40 CFR §63.1255(g)(2)(i)(A)]
- (B) A schedule for monitoring connectors subject to the provisions of §63.174(a) of the 40 CFR and valves subject to the provisions of paragraph (e)(4) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(g)(2)(i)(B)]
- (C) Physical tagging of the equipment to indicate that it is in organic HAP service is not required. Equipment subject to the provisions of section 63.1255 may be identified on a plant site plan, in log entries, or by other appropriate methods. [40 CFR §63.1255(g)(2)(i)(C)]
- ii. (A) A list of identification numbers for equipment that BSMC-Barceloneta elects to equip with a closed-vent system and control device, under the provisions of paragraph (c)(7) of section 63.1255, §63.164(h), or §63.165(c). [40 CFR §63.1255(g)(2)(ii)(A)]
- (B) A list of identification numbers for compressors that BSMC-Barceloneta elects to designate as operating with an instrument reading of less than 500 parts per million above background, under the provisions of §63.164(i) of the 40 CFR. [40 CFR §63.1255(g)(2)(ii)(B)]

- iii. (A) A list of identification numbers for pressure relief devices subject to the provisions in §63.165(a) of the 40 CFR. [40 CFR §63.1255(g)(2)(iii)(A)]
 - (B) A list of identification numbers for pressure relief devices equipped with rupture disks, under the provisions of §63.165(d) of the 40 CFR. [40 CFR §63.1255(g)(2)(iii)(B)]
- iv. Identification of instrumentation systems subject to the provisions of section 63.1255 of the 40 CFR. Individual components in an instrumentation system need not be identified. [40 CFR §63.1255(g)(2)(iv)]
- v. According to the 40 CFR §63.1255(g)(2)(v), the following information shall be recorded for each dual mechanical seal system:
 - (A) Design criteria required by paragraph (c)(5)(vi)(A) of §63.1255 and §63.164(e)(2), and an explanation of the design criteria; and [40 CFR §63.1255(g)(2)(v)(A)]
 - (B) Any changes to these criteria and the reasons for the changes. [40 CFR §63.1255(g)(2)(v)(B)]
- vi. A list of equipment designated as unsafe to monitor/inspect or difficult to monitor/inspect under paragraph (f) of section 63.1255 of the 40 CFR and a copy of the plan for monitoring or inspecting this equipment. [40 CFR §63.1255(g)(2)(vi)]
- vii. A list of connectors removed from and added to the process, as described in §63.174(i)(1) of the 40 CFR, and documentation of the integrity of the weld for any removed connectors, as required in §63.174(j) of the 40 CFR. This is not required unless the net credits for removed connectors is expected to be used. [40 CFR §63.1255(g)(2)(vii)]
- viii. For equipment that BSMC-Barceloneta elects to monitor as provided under §63.178(c) of the 40 CFR, a list of equipment added to batch product processes since the last monitoring period required in sections 63.178(c)(3)(ii) and (iii). This list must be completed for each type of equipment within 90 calendar days, or by the next Periodic Report, following the end of the monitoring period for the type of equipment monitored, whichever is later. Also, if BSMC-Barceloneta elects to adjust monitoring frequency by the time in use, as provided in §63.178(c)(3)(iii),

records demonstrating the proportion of the time during the calendar year the equipment is in use in a manner subject to the provisions of section 63.1255 are required. Examples of suitable documentation are records of time in use for individual pieces of equipment or average time in use for the process unit. [40 CFR §63.1255(g)(2)(viii)]

- c. Records of visual inspections. For visual inspections of equipment subject to the provisions of paragraphs (c)(2)(iii) and (c)(5)(iv) of section 63.1255, BSMC-Barceloneta shall document that the inspection was conducted and the date of the inspection. BSMC-Barceloneta shall maintain records as specified in paragraph (g)(4) of section 63.1255 for leaking equipment identified in this inspection, except as provided in paragraph (g)(5) of section 63.1255 of the 40 CFR. These records shall be retained for 2 years. [40 CFR §63.1255(g)(3)]

- d. Monitoring records. According to the 40 CFR §63.1255(g)(4), when each leak is detected as specified in paragraph (c) of section 63.1255 of the 40 CFR and section 63.164, paragraph (e) of section 63.1255 and section 63.169, and section 63.172 and 63.174, the following information shall be recorded and kept for 5 years (at least 2 years onsite, with the remaining 3 years either onsite or offsite):
 - i. The instrument and the equipment identification number and the operator name, initials, or identification number. [40 CFR §63.1255(g)(4)(i)]

 - ii. The date the leak was detected and the date of the first attempt to repair the leak. [40 CFR §63.1255(g)(4)(ii)]

 - iii. The date of successful repair of the leak. [40 CFR §63.1255(g)(4)(iii)]

 - iv. The maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A, after the leak is successfully repaired or determined to be nonrepairable. [40 CFR §63.1255(g)(4)(iv)]

 - v. “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. [40 CFR §63.1255(g)(4)(v)]
 - (A) BSMC-Barceloneta may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures shall be included either as part of the startup/shutdown/malfunction plan, required by section

- 63.1259(a)(3) of the 40 CFR, or in a separate document that is maintained at the plant site. Reasons for delay of repair may be documented by citing the relevant sections of the written procedure. [40 CFR §63.1255(g)(4)(v)(A)]
- (B) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked onsite before depletion and the reason for depletion. [40 CFR §63.1255(g)(4)(v)(B)]
- vi. If repairs were delayed, dates of process shutdowns that occur while the equipment is unrepaired. [40 CFR §63.1255(g)(4)(vi)]
- vii. (A) If the alternative in §63.174(c)(1)(ii) of the 40 CFR is not in use for the monitoring period, identification, either by list, location (area or grouping), or tagging of connectors disturbed since the last monitoring period required in §63.174(b) del 40 CFR, as described in §63.174(c)(1) of the 40 CFR. [40 CFR §63.1255(g)(4)(vii)(A)]
- (B) The date and results of follow-up monitoring as required in §63.174(c)(1)(i) and (c)(2)(ii) of the 40 CFR. If identification of disturbed connectors is made by location, then all connectors within the designated location shall be monitored. [40 CFR §63.1255(g)(4)(vii)(B)]
- viii. The date and results of the monitoring required in §63.178(c)(3)(i) for equipment added to a batch process since the last monitoring period required in section 63.178(c)(3)(ii) and (iii) of the 40 CFR. If no leaking equipment is found in this monitoring, BSMC-Barceloneta shall record that the inspection was performed. Records of the actual monitoring results are not required. [40 CFR §63.1255(g)(4)(viii)]
- ix. Copies of the periodic reports as specified in paragraph (h)(3) of section 63.1255 of the 40 CFR, if records are not maintained on a computerized data base capable of generating summary reports from the records. [40 CFR §63.1255(g)(4)(ix)]
- e. Records of pressure tests - According to the 40 CFR §63.1255(g)(5), the owner or operator who elects to pressure test a process equipment train or supply lines between storage and processing areas to demonstrate compliance with section 63.1255 is exempt from the requirements of paragraphs (g)(2), (3), (4), and (6) of section 63.1255 of the 40 CFR.

Instead, the owner or operator shall maintain records of the following information:

- i. The identification of each product, or product code, produced during the calendar year. It is not necessary to identify individual items of equipment in the process equipment train. [40 CFR §63.1255(g)(5)(i)]
- ii. Physical tagging of the equipment to identify that it is in organic HAP service and subject to the provisions of section 63.1255 of the 40 CFR is not required. Equipment in a process subject to the provisions of section 63.1255 of the 40 CFR may be identified on a plant site plan, in log entries, or by other appropriate methods. [40 CFR §63.1255(g)(5)(ii)]
- iii. The dates of each pressure test required in section 63.178(b) of the 40 CFR, the test pressure, and the pressure drop observed during the test. [40 CFR §63.1255(g)(5)(iii)]
- iv. Records of any visible, audible, or olfactory evidence of fluid loss. [40 CFR §63.1255(g)(5)(iv)]
- v. According to §63.1255(g)(5)(v) of the 40 CFR, when a process equipment train does not pass two consecutive pressure tests, the following information shall be recorded in a log and kept for 2 years:
 - (A) The date of each pressure test and the date of each leak repair attempt. [40 CFR §63.1255(g)(5)(v)(A)]
 - (B) Repair methods applied in each attempt to repair the leak. [40 CFR §63.1255(g)(5)(v)(B)]
 - (C) The reason for the delay of repair. [40 CFR §63.1255(g)(5)(v)(C)]
 - (D) The expected date for delivery of the replacement equipment and the actual date of delivery of the replacement equipment. [40 CFR §63.1255(g)(5)(v)(D)]
 - (E) The date of successful repair. [40 CFR §63.1255(g)(5)(v)(E)]
- f. Records of compressor and relief device compliance tests - According to the 40 CFR §63.1255(g)(6), the dates and results of each compliance test

required for compressors subject to the provisions in section 63.164(i) of the 40 CFR and the dates and results of the monitoring following a pressure release for each pressure relief device subject to the provisions in sections 63.165(a) and (b) of the 40 CFR. The results shall include:

- i. The background level measured during each compliance test. [40 CFR §63.1255(g)(6)(i)]
 - ii. The maximum instrument reading measured at each piece of equipment during each compliance test. [40 CFR §63.1255(g)(6)(ii)]
- g. Records for closed-vent systems - According to the 40 CFR §63.1255(g)(7), BSMC-Barceloneta shall maintain records of the information specified in paragraphs (g)(7)(i) through (iii) of section 63.1255 for closed-vent systems and control devices subject to the provisions of paragraph (b)(4)(ii) of section 63.1255. The records specified in paragraph (g)(7)(i) of section 63.1255 shall be retained for the life of the equipment. The records specified in paragraphs (g)(7)(ii) and (g)(7)(iii) of section 63.1255 shall be retained for 2 years.
- i. The design specifications and performance demonstrations specified in paragraphs (g)(7)(i)(A) through (g)(7)(i)(D) of section 63.1255 of the 40 CFR, mentioned next:
 - (A) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams. [40 CFR §63.1255(g)(7)(A)]
 - (B) The dates and descriptions of any changes in the design specifications. [40 CFR §63.1255(g)(7)(B)]
 - (C) The flare design (i.e., steam assisted, air assisted, or nonassisted) and the results of the compliance demonstration required by §63.11(b) of the 40 CFR. [40 CFR §63.1255(g)(7)(C)]
 - (D) A description of the parameter or parameters monitored, as required in paragraph (b)(4)(ii) of section 63.1255, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring. [40 CFR §63.1255(g)(7)(D)]

- ii. Records of operation of closed-vent systems and control devices. [40 CFR 63.1255(g)(7)(ii)]
 - (A) Dates and durations when the closed-vent systems and control devices required in paragraph (c) of section 63.1255 and sections 63.164 through 63.166 are not operated as designed as indicated by the monitored parameters, including periods when a flare pilot light system does not have a flame. [40 CFR 63.1255(g)(7)(ii)(A)]
 - (B) Dates and durations during which the monitoring system or monitoring device is inoperative. [40 CFR 63.1255(g)(7)(ii)(B)]
 - (C) Dates and durations of startups and shutdowns of control devices required in paragraph (c)(7) of section 63.1255 and sections 63.164 through 63.166 of the 40 CFR. [40 CFR 63.1255(g)(7)(ii)(C)]
- iii. Records of inspections of closed-vent systems subject to the provisions of §63.172 of the 40 CFR. [40 CFR 63.1255(g)(7)(iii)]
 - (A) For each inspection conducted in accordance with the provisions of section 63.172(f)(1) or (f)(2) during which no leaks were detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 63.1255(g)(7)(iii)(A)]
 - (B) For each inspection conducted in accordance with the provisions of section 63.172(f)(1) or (f)(2) during which leaks were detected, the information specified in paragraph (g)(4) of section 63.1255 of the 40 CFR shall be recorded. [40 CFR 63.1255(g)(7)(iii)(B)]
- h. Records for components in heavy liquid service - Information, data, and analysis used to determine that a piece of equipment or process is in heavy liquid service shall be recorded. Such a determination shall include an analysis or demonstration that the process fluids do not meet the criteria of “in light liquid or gas service”. Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge. [40 CFR §63.1255(g)(8)]
- i. Records of exempt components - Identification, either by list, location (area or group) of equipment in organic HAP service less than 300 hours

per year subject to the provisions of section 63.1255 of the 40 CFR. [40 CFR §63.1255(g)(9)]

- j. Records of alternative means of compliance determination. According to the 40 CFR §63.1255(g)(10), owners and operators choosing to comply with the requirements of section 63.179 of the 40 CFR shall maintain the following records:
 - i. Identification of the process or processes and the organic HAP they handle. [40 CFR §63.1255(g)(10)(i)]
 - ii. A schematic of the process, enclosure, and closed-vent system. [40 CFR §63.1255(g)(10)(ii)]
 - iii. A description of the system used to create a negative pressure in the enclosure to ensure that all emissions are routed to the control device. [40 CFR §63.1255(g)(10)(iii)]

24. Reporting requirements [40 CFR §63.1255(h)]

- a. According to the 40 CFR §63.1255(h)(1), each owner or operator of a source subject to this section shall submit the reports listed in paragraphs (h)(1)(i) through (ii) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(h)(1)]
 - i. A Notification of Compliance Status Report described in paragraph (h)(2) of section 63.1255 of the 40 CFR, [40 CFR §63.1255(h)(1)(i)]
 - ii. Periodic reports described in paragraph (h)(3) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(h)(1)(ii)]
- b. Notification of Compliance Status Report. According to the 40 CFR §63.1255(h)(2), each owner or operator of a source subject to section 63.1255 shall submit the information specified in paragraphs (h)(2)(i) through (iii) of section 63.1255 in the Notification of Compliance Status Report described in section 63.1260(f) of the 40 CFR.
 - i. The notification shall provide the information listed in paragraphs (h)(2)(i)(A) through (C) of section 63.1255 for each process subject to the requirements of paragraphs (b) through (g) of section 63.1255 of the 40 CFR.
 - (A) Process group identification. [40 CFR §63.1255(h)(2)(i)(A)]

- (B) Number of each equipment type (e.g., valves, pumps) in organic HAP service, excluding equipment in vacuum service. [40 CFR §63.1255(h)(2)(i)(B)]
 - (C) Method of compliance with the standard (for example, “monthly leak detection and repair” or “equipped with dual mechanical seals”). [40 CFR §63.1255(h)(2)(i)(C)]
 - ii. The notification shall provide the information listed in paragraphs (h)(2)(ii)(A) and (B) of section 63.1255 for each process subject to the requirements of paragraph (b)(4)(iv) of section 63.1255 and section 63.178(b) of the 40 CFR. [40 CFR §63.1255(h)(2)(ii)]
 - (A) Products or product codes subject to the provisions of section 63.1255 of the 40 CFR, and [40 CFR §63.1255(h)(2)(ii)(A)]
 - (B) Planned schedule for pressure testing when equipment is configured for production of products subject to the provisions of section 63.1255 of the 40 CFR. [40 CFR §63.1255(h)(2)(ii)(B)]
 - iii. The notification shall provide the information listed in paragraphs (h)(2)(iii)(A) and (B) of section 63.1255 of the 40 CFR for each process subject to the requirements in section 63.179 of the 40 CFR. [40 CFR §63.1255(h)(2)(iii)]
 - (A) Process identification. [40 CFR §63.1255(h)(2)(iii)(A)]
 - (B) A description of the system used to create a negative pressure in the enclosure and the control device used to comply with the requirements of paragraph (b)(4)(ii) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(h)(2)(iii)(B)]
 - iv. Any change in the information submitted under paragraph (h) of section 63.1255 shall be provided to the Board and the EPA as part of the subsequent periodic reports. Section 63.9(j) shall not apply to the Notification of Compliance Status Report described in paragraph (h)(2) of section 63.1255 of the 40 CFR.
- c. Periodic reports. According to the 40 CFR §63.1255(h)(3), the owner or operator of a source subject to section 63.1255 of the 40 CFR shall submit Periodic Reports.

- i. A report containing the information in paragraphs (h)(3)(ii), (iii), and (iv) of section 63.1255 of the 40 CFR shall be submitted semiannually. The first report shall be submitted no later than 240 days after the Notification of Compliance Status Report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status Report is due. Each subsequent report shall cover the 6-month period following the preceding period. [40 CFR §63.1255(h)(3)(i)]
- ii. For equipment complying with the provisions of paragraphs (b) through (g) of section 63.1255, except paragraph (b)(4)(iv) of section 63.1255 and §63.179, the summary information listed in paragraphs (h)(3)(ii)(A) through (L) of section 63.1255 of the 40 CFR for each monitoring period during the 6-month period. [40 CFR §63.1255(h)(3)(ii)]
 - (A) The number of valves for which leaks were detected as described in paragraph (e)(3) of section 63.1255 of the 40 CFR, the percent leakers, and the total number of valves monitored; [40 CFR §63.1255(h)(3)(ii)(A)]
 - (B) The number of valves for which leaks were not repaired as required in paragraph (e)(7) of section 63.1255 of the 40 CFR, identifying the number of those that are determined nonreparable; [40 CFR §63.1255(h)(3)(ii)(B)]
 - (C) Separately, the number of pumps and agitators for which leaks were detected as described in paragraph (c)(2) of section 63.1255 of the 40 CFR, the total number of pumps and agitators monitored, and, for pumps, the percent leakers; [40 CFR §63.1255(h)(3)(ii)(C)]
 - (D) Separately, the number of pumps and agitators for which leaks were not repaired as required in paragraph (c)(3) of section 63.1255 of the 40 CFR; [40 CFR §63.1255(h)(3)(ii)(B)]
 - (E) The number of compressors for which leaks were detected as described in §63.164(f) del 40 CFR; [40 CFR §63.1255(h)(3)(ii)(E)]
 - (F) The number of compressors for which leaks were not repaired as required in §63.164(g) of the 40 CFR; [40 CFR §63.1255(h)(3)(ii)(F)]

- (G) The number of connectors for which leaks were detected as described in §63.174(a) of the 40 CFR, the percent of connectors leaking, and the total number of connectors monitored; [40 CFR §63.1255(h)(3)(ii)(G)]
 - (H) The number of connectors for which leaks were not repaired as required in §63.174(d) of the 40 CFR, identifying the number of those that are determined nonrepairable; [40 CFR §63.1255(h)(3)(ii)(H)]
 - (I) The facts that explain any delay of repairs and, where appropriate, why a process shutdown was technically infeasible. [40 CFR §63.1255(h)(3)(ii)(I)]
 - (J) The results of all monitoring to show compliance with sections 63.164(i), 63.165(a), and 63.172(f) of the 40 CFR conducted within the semiannual reporting period. [40 CFR §63.1255(h)(3)(ii)(J)]
 - (K) If applicable, the initiation of a monthly monitoring program under either paragraph (c)(4)(ii) or paragraph (e)(4)(i) of section 63.1255 of the 40 CFR. [40 CFR §63.1255(h)(3)(ii)(K)]
 - (L) If applicable, notification of a change in connector monitoring alternatives as described in §63.174(c)(1) of the 40 CFR. [40 CFR §63.1255(h)(3)(ii)(L)]
- iii. For owners or operators electing to meet the requirements of §63.178(b), the report shall include the information listed in paragraphs (h)(3)(iii)(A) through (E) of paragraph (h)(iii) of section 63.1255 for each process. [40 CFR §63.1255(h)(3)(iii)]
- (A) Product process equipment train identification; [40 CFR §63.1255(h)(3)(iii)(A)]
 - (B) The number of pressure tests conducted; [40 CFR §63.1255(h)(3)(iii)(B)]
 - (C) The number of pressure tests where the equipment train failed either the retest or two consecutive pressure tests; [40 CFR §63.1255(h)(3)(iii)(C)]

- (D) The facts that explain any delay of repairs; and [40 CFR §63.1255(h)(3)(iii)(D)]
 - (E) The results of all monitoring to determine compliance with §63.172(f) of subpart H of the 40 CFR. [40 CFR §63.1255(h)(3)(iii)(E)]
- iv. Any revisions to items reported in earlier Notification of Compliance Status report, if the method of compliance has changed since the last report. [40 CFR §63.1255(h)(3)(iv)]

Standards: Wastewater (EUWW1-MACT)

25. General - BMSMC-Barceloneta shall comply with the general wastewater requirements in paragraphs (a)(1) through (3) of the 40 CFR Section 63.1256 and the maintenance wastewater provisions in paragraph (a)(4). BMSMC-Barceloneta may transfer wastewater to a treatment operation not owned by BMSMC-Barceloneta in accordance with the §63.1256(a)(5). [40 CFR §63.1256(a)]

a. Identify wastewater that requires control [40 CFR §63.1256(a)(1)] –

i. BMSMC-Barceloneta has designated all non-exempt wastewater streams as affected wastewater that require control for soluble and partially soluble HAP compounds pursuant to the §63.1256(a)(1)(ii) of the 40 CFR, reason why they are not required to determine the annual average concentration or load for each wastewater stream designated for the purpose of Section 63.1256 of the 40 CFR. However, BMSMC-Barceloneta will use the criteria established in Section 63.1256 (a)(1)(i) if at any moment decides to determine whether a wastewater stream is affected or not. A wastewater stream is affected if the annual average concentration and annual load exceed any of the criteria specified next, which are included in section 63.1256(a)(1)(i)(A) through (D):

(A) The wastewater stream contains partially soluble HAP compounds at an annual average concentration greater than 1,300 ppmw, and the total soluble and partially soluble HAP load in all wastewater from the PMPU exceeds 0.25 Mg/yr. [40 CFR §63.1256(a)(1)(i)(A)]

(B) The wastewater stream contains partially soluble and soluble HAP compounds at an annual average concentration greater than 5,200 ppmw, and the total soluble and partially soluble HAP load in all wastewater

from the PMPU exceeds 0.25 Mg/yr. [40 CFR §63.1256(a)(1)(i)(B)]

- (C) The wastewater stream contains partially soluble and /or soluble HAP at an annual average concentration of greater than 10,000 ppmw, and the total partially soluble and/or soluble HAP load in all wastewater from the affected source is greater than 1 Mg/yr. [40 CFR §63.1256(a)(1)(i)(C)]
- (D) For new sources, a wastewater stream shall be subject to additional control requirements if the wastewater stream contains soluble HAP compounds at an annual average concentration greater than 110,000 ppmw, and the total soluble and partially soluble HAP load in all wastewater from the PMPU exceeds 1 Mg/yr. [40 CFR §63.1256(a)(1)(i)(D)]
- (E) BMSMC-Barceloneta shall use the provisions in §63.1257(e)(1) of the 40 CFR to determine the annual average concentration and the annual load of compounds of soluble and partially soluble HAPs. [40 CFR 63.1257(e)(1)]
- (F) BMSMC-Barceloneta may use a combination of the methods in paragraphs from §§63.1256(a)(1)(i) and (ii) of the 40 CFR for the different affected wastewater in the facility.

b. Requirements for affected wastewater [40 CFR §63.1256(a)(2)]

- i. BMSMC-Barceloneta shall comply with the applicable requirements for wastewater tanks, surface impoundments, containers, individual drain systems, and oil/water separators as specified in paragraphs (b) through (f) of section 63.1256 of the 40 CFR, except as provided in paragraph (g)(3) of section 63.1256 of the 40 CFR. [40 CFR §63.1256(a)(2)(i)]
- ii. BMSMC-Barceloneta shall comply with the applicable requirements for control of soluble and partially soluble compounds as specified in paragraph (g) of section 63.1256 of the 40 CFR. Alternatively, BMSMC-Barceloneta may elect to comply with the treatment provisions specified in paragraph (a)(5) of section 63.1256 of the 40 CFR. [40 CFR §63.1256(a)(2)(ii)]

- iii. BMSMC-Barceloneta shall comply with the applicable monitoring and inspection requirements specified in §63.1258. [40 CFR §63.1256(a)(2)(iii)]
- iv. BMSMC-Barceloneta shall comply with the applicable recordkeeping and reporting requirements specified in sections 63.1259 and 63.1260 of the 40 CFR. [40 CFR §63.1256(a)(2)(iii)]
- c. Requirements for multiphase discharges [40 CFR §63.1256(a)(3)]- BMSMC-Barceloneta shall not discharge a separate phase that can be isolated through gravity separation from the aqueous phase to a waste management or treatment unit, unless the stream is discharged to a treatment unit in compliance with §63.1256(g)(13).
- d. Maintenance wastewater requirements - Pursuant to the 40 CFR §63.1256(a)(4), BMSMC-Barceloneta shall comply with the following requirements for maintenance wastewater containing partially soluble or soluble HAP listed in Tables 2 and 3 of subpart GGG of the 40 CFR, part 63. Maintenance wastewater is exempt from all other provisions of this subpart GGG of the 40 CFR, part 63.
 - i. According to §63.1256(a)(4)(i) of the 40 CFR, BMSMC-Barceloneta shall prepare a description of maintenance procedures for management of wastewater generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance turnaround) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall:
 - (A) Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities; and [40 CFR §63.1256(a)(4)(i)(A)]
 - (B) Specify the procedures that will be followed to properly manage the wastewater and minimize organic HAP emissions to the atmosphere; and [40 CFR §63.1256(a)(4)(i)(B)]
 - (C) Specify the procedures to be followed when clearing materials from process equipment. [40 CFR §63.1256(a)(4)(i)(C)]
 - ii. BMSMC-Barceloneta shall modify and update the information required by §63.1256(a)(4)(i) of the 40 CFR as needed following each maintenance procedure based on the actions taken and the

wastewater generated in the preceding maintenance procedure. [40 CFR §63.1256(a)(4)(ii)]

- iii. BMSMC-Barceloneta shall implement the procedures described in §63.1256(a)(4)(i) and (ii) as part of the startup, shutdown, and malfunction plan (SSMP) required under §63.6(e)(3) of the 40 CFR. [40 CFR §63.1256(a)(4)(iii)]
- iv. BMSMC-Barceloneta shall maintain a record of the information required by §63.1256(a)(4)(i) and (ii) as part of the SSMP required under § 63.6(e)(3). [40 CFR §63.1256(a)(4)(iv)]

- e. Offsite treatment or onsite treatment not owned or operated BMSMC-Barceloneta [40 CFR §63.1256(a)(5)] - BMSMC-Barceloneta may elect to transfer affected wastewater streams or a residual removed from such affected wastewater to an onsite treatment operation not owned or operated by BMSMC-Barceloneta or to an offsite treatment operation. BMSMC-Barceloneta shall follow the procedures included in the §63.1256(a)(5) of the 40 CFR while transferring wastewater or a residual removed from such affected wastewater for treatment onsite or offsite not owned or operated by BMSMC-Barceloneta.

26. Wastewater tanks- Pursuant to section 63.1256(b) of the 40 CFR, for each wastewater tank that receives, manages, or treats affected wastewater or a residual removed from affected wastewater, BMSMC-Barceloneta shall comply with the requirements of either paragraph (b)(1) or (2) of section 63.1256 of the 40 CFR as specified in Table 6 of subpart GGG, which are included next.

- a. BMSMC-Barceloneta shall operate and maintain a fixed roof except when the contents of the wastewater tank are heated, treated by means of an exothermic reaction, or sparged, during which time BMSMC-Barceloneta shall comply with the requirements specified in §63.1256(b)(2) of the 40 CFR. For the purposes of this paragraph, the requirements of §63.1256 (b)(2) of the 40 CFR are satisfied by operating and maintaining a fixed roof if BMSMC-Barceloneta demonstrates that the total soluble and partially soluble HAP emissions from the wastewater tank are no more than 5 percent higher than the emissions would be if the contents of the wastewater tank were not heated, treated by an exothermic reaction, or sparged. [40 CFR §63.1256(b)(1)]
- b. BMSMC-Barceloneta shall comply with the requirements in §63.1256 (b)(3) through (9) of the 40 CFR and shall operate and maintain a fixed roof and a closed vent system that routes the organic HAP vapors vented from the wastewater tank to the thermal oxidizer, in compliance with §63.1256(b)(2) of the 40 CFR.

- c. If complying with the requirements of §63.1256(b)(2)(i), the fixed roof shall meet the requirements of §63.1256 (b)(3)(i), the control device shall meet the requirements of paragraph §63.1256(b)(3)(ii), and the closed-vent system shall meet the requirements of §63.1256(b)(3)(iii), summarized next:
 - i. The fixed roof shall meet the following requirements: [40 CFR §63.1256(b)(3)(i)]
 - (A) Except as provided in §63.1256(b)(3)(iv), the fixed roof and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be maintained in accordance with the requirements in § 63.1258(h) of the 40 CFR. [40 CFR §63.1256(b)(3)(i)(A)]
 - (B) Each opening shall be maintained in a closed position (e.g., covered by a lid) at all times that the wastewater tank contains affected wastewater or residual removed from affected wastewater except when it is necessary to use the opening for wastewater sampling, removal, or for equipment inspection, maintenance, or repair. [40 CFR §63.1256(b)(3)(i)(B)]
 - ii. The control device shall be designed, operated, and inspected in accordance with the requirements of §63.1256(h) of the 40 CFR. [40 CFR §63.1256(b)(3)(ii)]
 - iii. Except as provided in §63.1256(b)(3)(iv), the closed-vent system shall be inspected in accordance with the requirements of §63.1258(h) of the 40 CFR. [40 CFR §63.1256(b)(3)(iii)]
 - iv. For any fixed roof tank and closed-vent system that is operated and maintained under negative pressure, BMSMC-Barceloneta is not required to comply with the requirements specified in §63.1258(h) of the 40 CFR. [40 CFR §63.1256(b)(3)(iv)]
- d. Except as provided in §63.1256(b)(6) of the 40 CFR, each wastewater tank shall be inspected initially, and semiannually thereafter, for improper work practices in accordance with §63.1258(g) of the 40 CFR. For wastewater tanks, improper work practice includes, but is not limited to, leaving open any access door or other opening when such door or opening is not in use. [40 CFR §63.1256(b)(7)]
- e. Except as provided in §63.1256(b)(6) of the 40 CFR, each wastewater tank shall be inspected for control equipment failures as defined in paragraph (b)(8)(i) of section 63.1256 according to the schedule in

paragraphs (b)(8)(ii) and (iii) of section 63.1256 in accordance with §63.1258(g) of the 40 CFR. [40 CFR §63.1256(b)(8)]

- i. Control equipment failures for wastewater tanks include, but are not limited to a gasket, joint, lid, cover, or door that has a crack or gap, or is broken. [40 CFR §63.1256(b)(8)(i)(I)]
- ii. BMSMC-Barceloneta shall inspect for the control equipment failures mentioned in section §63.1256(b)(8)(i)(I) initially and semiannually thereafter. [40 CFR §63.1256(b)(8)(iii)]

f. Except as provided in §63.1256(i), when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 45 calendar days after identification. If a failure that is detected during inspections required by this section cannot be repaired within 45 calendar days and if the tank cannot be emptied within 45 calendar days, BMSMC-Barceloneta may utilize up to two extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the tank will be emptied as soon as practical. [40 CFR §63.1256(b)(9)]

27. Containers [40 CFR §63.1256(d)] - For each container that receives, manages, or treats affected wastewater or a residual removed from affected wastewater, BMSMC-Barceloneta shall comply with the following requirements included in §63.1256(d)(1) through (5):

- a. BMSMC-Barceloneta shall operate and maintain a cover on each container used to handle, transfer, or store affected wastewater or a residual removed from affected wastewater in accordance with the following requirements: [40 CFR §63.1256(d)(1)]
 - i. Except as provided in section 63.1256(d)(3)(iv) of the 40 CFR, if the capacity of the container is greater than 0.42 m³, the cover and all openings (e.g., bungs, hatches, sampling ports, and pressure relief devices) shall be maintained in accordance with the requirements in §63.1258(h) of the 40 CFR. [40 CFR §63.1256(d)(1)(i)]
 - ii. If the capacity of the container is less than or equal to 0.42 m³, BMSMC-Barceloneta shall comply with either of the following: [40 CFR §63.1256(d)(1)(ii)]

- (A) The container must meet existing Department of Transportation (DOT) specifications and testing requirements under 49 CFR part 178; or [40 CFR §63.1256(d)(1)(ii)(A)]
 - (B) Except as provided in section 63.1256 (d)(3)(iv) of the 40 CFR, the cover and all openings shall be maintained without leaks as specified in §63.1258(h). [40 CFR §63.1256(d)(1)(ii)(B)]
- iii. The cover and all openings shall be maintained in a closed position (e.g., covered by a lid) at all times that affected wastewater or a residual removed from affected wastewater is in the container except when it is necessary to use the opening for filling, removal, inspection, sampling, or pressure relief events related to safety considerations. [40 CFR §63.1256(d)(1)(iii)]
- b. Filling of large containers - As specified under section 63.1256(d)(2) of the 40 CFR, pumping affected wastewater or a residual removed from affected wastewater into a container with a capacity greater than or equal to 0.42 m³ shall be conducted in accordance with the conditions in paragraphs (d)(2)(i) and (ii) of section 63.1256 of the 40 CFR.
- c. During treatment of affected wastewater or a residual removed from affected wastewater, including aeration, thermal or other treatment, in a container, whenever it is necessary for the container to be open, the container shall be located within an enclosure with a closed-vent system that routes the organic HAP vapors vented from the container to a control device, and shall comply with the requirements in §63.1256(d)(3)(i) through 1a (iii). However, if the enclosure and the closed-vent system is operated and maintained under negative pressure, BSMC-Barceloneta does not have to comply with §63.1258(h) of the 40 CFR. [40 CFR §63.1256(d)(3)]
- d. Each container shall be inspected initially, and semiannually thereafter, for improper work practices and control equipment failures in accordance with §63.1258(g) of the 40 CFR. [40 CFR §63.1256(d)(4)]
- i. For containers, improper work practice includes, but is not limited to, leaving open any access hatch or other opening when such hatch or opening is not in use. [40 CFR §63.1256(d)(4)(i)]
 - ii. For containers, control equipment failure includes, but is not limited to, any time a cover or door has a gap or crack, or is broken. [40 CFR §63.1256(d)(4)(ii)]

- e. Except as provided in section 63.1256 (i) of the 40 CFR, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 15 calendar days after identification. [40 CFR §63.1256(d)(5)]
28. Individual drain systems - Pursuant to section 63.1256(e) of the 40 CFR, for each individual drain system that receives or manages affected wastewater or a residual removed from affected wastewater, BSMC-Barceloneta shall comply with the requirements of paragraphs (e) (1), (2), and (3) or with paragraphs (e) (4), (5), and (6) of section 63.1256 of the 40 CFR, as described next:
- a. If BSMC-Barceloneta elects to comply with the provisions in §63.1256(e)(1), BSMC-Barceloneta shall operate and maintain on each opening in the individual drain system a cover and if vented, route the vapors to a process or through a closed-vent system to a control device. BSMC-Barceloneta shall comply with the following requirements, described in §63.1256(e)(1)(i) through (v): [40 CFR §63.1256(e)(1)]
 - i. The cover and all openings shall meet the following requirements: [40 CFR §63.1256(e)(1)(i)]
 - (A) Except as provided in §63.1256(e)(1)(iv) of the 40 CFR, the cover and all openings (e.g., access hatches, sampling ports) shall be maintained in accordance with the requirements specified in §63.1258(h) of the 40 CFR. [40 CFR §63.1256(e)(1)(i)(A)]
 - (B) The cover and all openings shall be maintained in a closed position at all times that affected wastewater or a residual removed from affected wastewater is in the drain system except when it is necessary to use the opening for sampling or removal, or for equipment inspection, maintenance, or repair. [40 CFR §63.1256(e)(1)(i)(B)]
 - ii. The control device shall be designed, operated, and inspected in accordance with §63.1256 (h) of the 40 CFR. [40 CFR §63.1256(e)(1)(ii)]
 - iii. Except as provided in §63.1256(e)(1)(iv) of the 40 CFR, the closed-vent system shall be inspected in accordance with §63.1258(h) of the 40 CFR. [40 CFR §63.1256(e)(1)(iii)]
 - iv. For any cover and closed-vent system that is operated and maintained under negative pressure, BSMC-Barceloneta is not

required to comply with the requirements specified in §63.1258(h) of the 40 CFR. [40 CFR §63.1256(e)(1)(iv)]

- v. The individual drain system shall be designed and operated to segregate the vapors within the system from other drain systems and the atmosphere. [40 CFR §63.1256(e)(1)(v)]
- b. Each individual drain system shall be inspected initially, and semiannually thereafter, for improper work practices and control equipment failures, in accordance with §63.1258(g) of the 40 CFR. [40 CFR §63.1256(e)(2)]
 - i. For individual drain systems, improper work practice includes, but is not limited to, leaving open any access hatch or other opening when such hatch or opening is not in use for sampling or removal, or for equipment inspection, maintenance, or repair. [40 CFR §63.1256(e)(2)(i)]
 - ii. For individual drain systems, control equipment failure includes, but is not limited to, any time a joint, lid, cover, or door has a gap or crack, or is broken. [40 CFR §63.1256(e)(2)(ii)]
- c. Except as provided in §63.1256(i), when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 15 calendar days after identification. [40 CFR §63.1256(e)(3)]
- d. If BMSMC-Barceloneta elects to comply with the provisions in §63.1256(e)(4), shall comply with the requirements in §63.1256(e)(4)(i) through (iii), described next: [40 CFR §63.1256(e)(4)]
 - i. Each drain shall be equipped with water seal controls or a tightly fitting cap or plug. Besides, BMSMC-Barceloneta shall comply with the requirements of §63.1256(e)(4)(i)(A) and (B). [40 CFR §63.1256(e)(4)(i)]
 - ii. Each junction box shall be equipped with a tightly fitting solid cover (i.e., no visible gaps, cracks, or holes) which shall be kept in place at all times except during inspection and maintenance. If the junction box is vented, BMSMC-Barceloneta shall comply with the requirements in §63.1256(e)(4)(ii) (A) or (B) of the 40 CFR. [40 CFR §63.1256(e)(4)(ii)]
 - iii. BMSMC-Barceloneta shall operate and maintain sewer lines as specified in §63.1256 (e)(4)(iii)(A) and (B). [40 CFR §63.1256(e)(4)(iii)]

- e. Equipment used to comply with §63.1256(e)(4) (i), (ii), or (iii) shall be inspected as follows: [40 CFR §63.1256(e)(5)]
 - i. Each drain using a tightly fitting cap or plug shall be visually inspected initially, and semiannually thereafter, to ensure caps or plugs are in place and that there are no gaps, cracks, or other holes in the cap or plug. [40 CFR §63.1256(e)(5)(i)]
 - ii. Each junction box shall be visually inspected initially, and semiannually thereafter, to ensure that there are no gaps, cracks, or other holes in the cover. [40 CFR §63.1256(e)(5)(ii)]
 - iii. The unburied portion of each sewer line shall be visually inspected initially, and semiannually thereafter, for indication of cracks or gaps that could result in air emissions. [40 CFR §63.1256(e)(5)(iii)]
 - f. Except as provided in §63.1256 (i), when a gap, hole, or crack is identified in a joint or cover, first efforts at repair shall be made no later than 5 calendar days after identification, and repair shall be completed within 15 calendar days after identification. [40 CFR §63.1256(e)(6)]
29. Performance standards for treatment processes managing wastewater and/or residuals removed from wastewater - 40 CFR §63.1256(g)
- a. Biological treatment processes, 40 CFR §63.1256(g)(3) – Biological treatment processes in compliance with section 63.1256 of the 40 CFR may be either open or closed biological treatment processes as defined in §63.1251. An open biological treatment process in compliance with section 63.1256 need not be covered and vented to a control device. An open or a closed biological treatment process in compliance with section 63.1256 and using sections 63.1257(e)(2)(iii)(E) or (F) to demonstrate compliance is not subject to the requirements of §63.1256 (b) and (c). A closed biological treatment process in compliance with §63.1256 and using §63.1257(e)(2)(iii)(G) to demonstrate compliance shall comply with the requirements of §63.1256 (b) and (c). Waste management units upstream of an open or closed biological treatment process shall meet the requirements of §63.1256 (b) through (f) of the 40 CFR, as applicable.
 - b. Control device requirements - When gases are vented from the treatment process, BSMC-Barceloneta shall comply with the applicable control device requirements specified in §63.1256(h) and §63.1257(e)(3), and the applicable leak inspection provisions specified in §63.1258(h). This requirement is in addition to the requirements for treatment systems specified in §63.1256 (g)(8) through (14). This requirement does not apply

to any open biological treatment process that meets the mass removal requirements. [40 CFR §63.1256(g)(5)]

- c. Residuals: general - Pursuant to section 63.1256(g)(6) of the 40 CFR, when residuals result from treating affected wastewater, BSMC-Barceloneta shall comply with the requirements for residuals specified in §63.1256(g)(14) of the 40 CFR.
- d. Treatment using a series of treatment processes - Pursuant to section 63.1256(g)(7) of the 40 CFR, in all cases where the wastewater provisions in subpart GGG allow or require the use of a treatment process or control device to comply with emissions limitations, BSMC-Barceloneta may use multiple treatment processes or control devices, respectively. For combinations of treatment processes where the wastewater stream is conveyed by hard piping, BSMC-Barceloneta shall comply with either of the requirements in §63.1256(g)(7)(i) or (ii) of the 40 CFR. For combinations of treatment processes where the wastewater stream is not conveyed by hard piping, BSMC-Barceloneta shall comply with the requirements of §63.1256(g)(7)(ii) of the 40 CFR. For combinations of control devices, BSMC-Barceloneta shall comply with the requirements of §63.1256 (g)(7)(i) of the 40 CFR.
- e. Compliance option: 95-percent mass reduction, for biological treatment processes, 40 CFR §63.1256(g)(11)- As selected by BSMC-Barceloneta as their compliance option, BSMC-Barceloneta shall reduce the mass of total soluble and partially soluble HAP sent to that biological treatment unit by at least 95%. To comply with this option, the affected wastewater shall be treated by 2 air strippers, connected in parallel, followed by 2 sequencing batch reactors and then treated by biological treatment. The gases from the air strippers shall be treated in the thermal oxidizers. All wastewater as defined in §63.1251 entering such a biological treatment unit from PMPU's subject to subpart GGG shall be included in the demonstration of the 95% mass removal. BSMC-Barceloneta shall comply with the requirements in §63.1256 (g)(11)(i) through (iv) of the 40 CFR, described next:
 - i. Except as provided in §63.1256 (g)(11)(iv), BSMC-Barceloneta shall ensure that all wastewater from PMPU's subject to subpart GGG entering a biological treatment unit are treated to destroy at least 95-percent total mass of all soluble and partially soluble HAP compounds. [40 CFR §63.1256(g)(11)(i)]
 - ii. For open biological treatment processes, compliance shall be determined using the procedures specified in §63.1257(e)(2)(iii)(E) of the 40 CFR. For closed aerobic biological treatment processes, compliance shall be determined using the procedures specified in

§63.1257(e)(2)(ii), (iii)(E), or (iii)(G) of the 40 CFR. For closed anaerobic biological treatment processes, compliance shall be determined using the procedures specified in §63.1257(e)(2)(ii) or (iii)(G) of the 40 CFR. [40 CFR §63.1256(g)(11)(ii)]

iii. For each treatment process or waste management unit that receives, manages, or treats wastewater subject to §63.1256(g)(11)(ii) of the 40 CFR from the POD to the biological treatment unit, BSMC-Barceloneta shall comply with paragraphs (b) through (f) of §63.1256 for control of air emissions. When complying with this paragraph, the term “affected wastewater” in §63.1256 (b) through (f) shall mean all wastewater from PMPU's, not just affected wastewater. [40 CFR §63.1256(g)(11)(iii)]

iv. If wastewater is in compliance with the requirements in the §63.1256 (g)(8), (9), or (12) before entering the biological treatment unit, the HAPs mass of that wastewater is not required to be included in the total mass flow rate entering the biological treatment unit for the purpose of demonstrating compliance. [40 CFR §63.1256(g)(11)(iv)]

f. Residuals - Pursuant to section 63.1256(g)(14) of the 40 CFR, for each residual removed from affected wastewater, BSMC-Barceloneta shall control for air emissions by complying with paragraphs (b) through (f) of section 63.1256 and by complying with one of the provisions in sections 63.1256(g)(14)(i) through (iv) of the 40 CFR, described next:

i. Recycle the residual to a production process or sell the residual for the purpose of recycling. Once a residual is returned to a production process, the residual is no longer subject to section 63.1256. [40 CFR §63.1256(g)(14)(i)]

ii. Return the residual to the treatment process. [40 CFR §63.1256(g)(14)(ii)]

iii. Treat the residual to destroy the total combined mass flow rate of soluble and/or partially soluble HAP compounds by 99% or more, as determined by the procedures specified in the §63.1257(e)(2)(iii)(C) or (D). [40 CFR §63.1256(g)(14)(iii)]

iv. Comply with the requirements for RCRA treatment options specified in the §63.1256(g)(13) [40 CFR §63.1256(g)(14)(iv)]

30. Control devices - Pursuant to section 63.1256(h) of the 40 CFR, for each control device or combination of control devices used to comply with the provisions in §63.1256 (b) through (f) and (g)(5), BSMC-Barceloneta shall operate and

maintain the control device or combination of control devices in accordance with the requirements of §63.1256(h)(1) through (5), described next:

- a. Whenever organic HAP emissions are vented to a control device which is used to comply with the provisions of subpart GGG, such control device shall be operating. [40 CFR §63.1256(h)(1)]
 - b. The control device shall be designed and operated in accordance with §63.1256 (h)(2) (i), (ii), (iii), (iv), or (v) of this section, as demonstrated by the provisions in §63.1257(e)(3). [40 CFR §63.1256(h)(2)]
 - c. If the control device is a combustion device, BMSMC-Barceloneta shall comply with the requirements in section 63.1252(g) of the 40 CFR to control halogenated vent streams. [40 CFR §63.1256(h)(3)]
 - d. Except as provided in §63.1256 (i) of the 40 CFR, if gaps, cracks, tears, or holes are observed in ductwork, piping, or connections to covers and control devices during an inspection, a first effort to repair shall be made as soon as practical but no later than 5 calendar days after identification. Repair shall be completed no later than 15 calendar days after identification or discovery of the defect. [40 CFR §63.1256(h)(4)]
 - e. The provisions in sections 63.1256 (h)(1) through (4) of the 40 CFR apply at all times, except as specified in §63.1250(g). BMSMC-Barceloneta may not comply with the planned routine maintenance provisions in §63.1252(h) for vent streams from waste management units. [40 CFR §63.1256(h)(5)]
31. Delay of repair - According to section 63.1256 of the 40 CFR, delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the repair is technically infeasible without a shutdown, as defined in §63.1251 of the 40 CFR, or if BMSMC-Barceloneta determines that emissions of purged material from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of this equipment shall occur by the end of the next shutdown.
- a. Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the equipment is emptied or is no longer used to treat or manage affected wastewater or residuals removed from affected wastewater. [40 CFR §63.1256(i)(1)]
 - b. Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified is also allowed if additional time is necessary due to the unavailability of parts beyond the control of BMSMC-Barceloneta. Repair shall be completed as soon as practical. If this provision is used, BMSMC-Barceloneta shall comply with the

requirements of §63.1259(h) to document the reasons that the delay of repair was necessary. [40 CFR §63.1256(i)(2)]

Test methods and compliance procedures, 40 CFR §63.1257

32. General: Except as specified in paragraph (a)(5) of section 63.1257 of the 40 CFR, the procedures specified in paragraphs (c), (d), (e), and (f) of section 63.1257 are required to demonstrate compliance with the storage tanks, process vents, equipment leaks and wastewater standards. The provisions in paragraphs (a) (2) through (3) of section 63.1257 apply to performance tests that are specified in paragraphs (c), (d), and (e) of section 63.1257. The provisions in paragraph (a)(5) of section 63.1257 are used to demonstrate initial compliance with the alternative standards specified in sections 63.1253(d) and 63.1254(c) of the 40 CFR. The provisions in paragraph (a)(6) of §63.1257 are used to comply with the outlet concentration requirements specified in sections 63.1253(c), 63.1254 (a)(2)(i) and (a)(3)(ii)(B), 63.1254(b)(i) and 63.1256(h)(2) of the 40 CFR.
- a. Design evaluation - To demonstrate that a control device meets the required control efficiency, a design evaluation must address the composition and organic HAP concentration of the vent stream entering the control device. A design evaluation also must address other vent stream characteristics and control device operating parameters as specified in any one of paragraphs (a)(1)(i) through (iv) of section 63.1257 of the 40 CFR, depending on the type of control device that is used. If the vent stream is not the only inlet to the control device, the efficiency demonstration also must consider all other vapors, gases, and liquids, other than fuels, received by the control device. [40 CFR §63.1257(a)(1)]
 - b. Calculation of TOC or total organic HAP concentration– Compliance based on TOC or in total organic HAPs shall be determined according to the procedures in section 63.1257(a)(2) of the 40 CFR.
 - c. Outlet concentration correction for supplemental gases, combustion devices – Instead of correcting for supplemental gases, BSMC-Barceloneta will comply with the provisions in §63.1258(b)(5)(ii)(A)(2) of the 40 CFR. BSMC-Barceloneta shall maintain a minimum residence time of 0.75 seconds and a minimum temperature in the combustion chamber of 816°C in the thermal oxidizers. Alternatively, BSMC-Barceloneta may correct for supplemental gases according to the provisions of §63.1257(a)(3) of the 40 CFR. [40 CFR §63.1257(a)(3)(i)]
 - d. Initial compliance with alternative standard - According to section 63.1257(a)(5) of the 40 CFR, BSMC-Barceloneta shall demonstrate initial compliance with the alternative standards in sections 63.1253(d) and 63.1254(c) of the 40 CFR for the thermal oxidizer when the outlet TOC concentration is 20 ppmv or less. BSMC-Barceloneta shall use

Method 18 to determine the predominant organic HAP in the emission stream if the TOC monitor is calibrated on the predominant HAP.

- e. Initial compliance with the 20 ppmv outlet limit - According to section 63.1257 of the 40 CFR, initial compliance with the 20 ppmv TOC and hydrogen halide and halogen concentration is demonstrated when the outlet TOC concentration is 20 ppmv or less. To demonstrate initial compliance, the operator shall use test methods described in paragraph (b) of section 63.1257 of the 40 CFR. BMSMC-Barceloneta shall comply with the monitoring provisions in section 63.1258(b)(1) through (4) on the initial compliance date.
- 33. Test methods - When testing is conducted to measure emissions from an affected source, BMSMC-Barceloneta shall use the test methods specified in paragraphs (b)(1) through (10) of section 63.1257 of the 40 CFR, in compliance with section 63.1257(b) of the 40 CFR.
- 34. Initial compliance with storage tank provisions - BMSMC-Barceloneta shall demonstrate initial compliance with section 63.1253(b) or (c), as applicable, by fulfilling the requirements of paragraph (c)(1), or (c)(2), or (c)(3) of section 63.1257 of the 40 CFR. Initial compliance with the alternate standard of section 63.1253(d) shall be demonstrated according to requirements in paragraph (a)(5) of section 63.1257. BMSMC-Barceloneta shall demonstrate compliance with the requirements in §63.1253(e) of the 40 CFR by including the periods of planned routine maintenance specified by date and time in each periodic report required by §63.1260 del 40 CFR. [40 CFR §63.1257(c)]
- 35. Initial compliance with process vent provisions - Pursuant to section 63.1257(d) of the 40 CFR, BMSMC-Barceloneta shall demonstrate initial compliance with the process vent provisions in §63.1254 using the procedures described in paragraphs (d)(1) through (4) of section 63.1257, except for the following:
 - a. Process condensers (EUMISC-MACT)– Section 63.1257(d)(3)(iii)(B) of the 40 CFR requires a demonstration that the process condensers are properly operated. As requested in the Precompliance report required by 40 CFR §63.1260(e), instead of performing the demonstration required by §63.1257(d)(3)(iii)(B) of the 40 CFR, BMSMC-Barceloneta will continuously monitor the operation of the thermal oxidizer bypass systems, during periods when the facility uses the 98% control standard to comply with the process vent standard. This approval is subject to treating the HAP emissions from all condensers not subject to PBAML by the thermal oxidizers.
- 36. Compliance with wastewater provisions– Compliance with wastewater provisions shall be demonstrated according to the procedures of section 63.1257(e) of the 40

CFR. If at any moment BMSMC-Barceloneta decides to determine which wastewaters are affected, BMSMC-Barceloneta shall follow the procedures included in §63.1257(e)(1) of the 40 CFR.

Monitoring requirements, 40 CFR §63.1258

37. BMSMC-Barceloneta shall provide evidence of continued compliance with the standard as specified in section 63.1258 of the 40 CFR.
38. Monitoring for control devices –
- a. BMSMC-Barceloneta shall comply with the monitoring requirements included in the following table for the normal operating scenario.

Location	Equipment	Parameter	Value	Monitoring Frequency	Averaging Period	Requirements for the indicators or the monitors
Hydrogenation Vents	Condensers (70-E-364 y 70-E-374)	Temperature of the Cooling Media	Less than or equal to 10°C	Continuous (every 15 minutes)	Daily when used as a control device	The temperature monitoring device must be accurate to within ±0.75% of the temperature measured in degrees Celsius or 2.5 °C, whichever is greater.
Thermal Oxidizing Unit (TOU)	Oxidizer (Hirt and Andersen)	Combustion Chamber Temperature	Greater than or equal to 1,500°F	Continuous (every 15 minutes)	Daily	The temperature monitoring device must be accurate to within ±0.75% of the temperature measured in degrees Celsius or 2.5 °C, whichever is greater.
		Residence Time	Greater than or equal to 0.75 seconds	N/A ¹⁴	N/A	N/A
	Scrubbers (located after each oxidizer)	pH	Greater than or equal to 2.5	Once per day	Daily	N/A
	Hirt	Liquid flow rate	Greater than or equal to 157.5 gpm	Continuous (every 15 minutes)	Daily	The monitoring device must be accurate within ±10% of the design scrubber liquid flow rate.
	Andersen		Greater than or equal to 705 gpm			
	CEM	TOC	20 ppmv or less	Continuous	Daily	The monitor must meet the requirements of Performance Specification (PS) 8 or 9 of appendix B of part 60. It must be installed, calibrated, and maintained, according to Sec. 63.8 of the 40 CFR Part 63. As part of the QA/QC Plan, calibration of the device must include, at a minimum, quarterly cylinder gas audits.

¹⁴ BMSMC-Barceloneta requested to perform an initial demonstration in the precompliance report to demonstrate that the design of both oxidizers does not allow the residence time in the combustion chamber to be less than 0.75 seconds. Because of this, this parameter will not be monitored. According to the demonstration, at the maximum temperature of the equipments, the residence time in the Hirt and Andersen units is 0.925 y 1.95 seconds, respectively.

Location	Equipment	Parameter	Value	Monitoring Frequency	Averaging Period	Requirements for the indicators or the monitors
Bypass	Bypass valve	Valve position	Closed	Continuous	N/A	N/A
Wastewater treatment Plant (WWTP)	<i>Air Stripper</i>	Influent liquid flow rate ¹⁵	Less than or equal to 210 gpm	Continuous (every 15 minutes)	Daily	N/A
	Treatment Plant	Effluent BOD ₅	Less than or equal to 11,470 lb/day	Quarterly	Grab sample	---
		Effluent TSS	Less than or equal to 8,621 lb/day	Quarterly	Grab sample	---
		MLVSS	Greater than or equal to 2 g/L	Twice per week	N/A	---

- b. Monitoring of the operating parameters of the control devices shall be done during the periods of time when they are functioning in achieving the HAPs removal required by Subpart GGG.
- c. The temperature indicators and the flow meters used to comply with the monitoring requirements on this permit shall be calibrated annually, as required by sections 63.1258(b)(1)(ii)(C) and 63.1258(b)(1)(viii)(B) of the 40 CFR. Records indicating the date, time and the results of the calibration shall be kept available for inspection by the Board's technical personnel.
- d. BMSMC-Barceloneta shall perform monthly visual inspections of each closed vent system as specified in section 63.1252(b) of the 40 CFR. [40 CFR §63.1258(b)(1)(xi)]
- e. Monitoring values taken during periods in which the control devices are not functioning in controlling HAP emissions, as indicated by periods of no flow, shall not be considered in the averages. Where flow to the device could be intermittent, shall install, calibrate and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. [40 CFR §63.1258(b)(2)(iii)]
- * f. Bristol shall maintain records in its Data Acquisition System of the periods of time in which the equipment is turned off or a malfunction occurs, which causes that there is no flow toward the control equipment. The information shall be available for review to EQB's technical personnel. [Rule 103 of the RCAP]

¹⁵ Only the influent wastewater flow rate is monitored, because the vapor flow rate will be maintained constant using fixed speed blowers.

- g. Instead of monitoring the HCl concentration using a CEM to monitor halogenated vent stream that are controlled by a combustion equipment followed by a scrubber, BMSMC-Barceloneta shall monitor the scrubber operating parameters as specified in the table included in condition 38 of section V.B. of this permit that demonstrate that the HCl emissions are reduced by at least 95% by weight, in compliance with §63.1258(b)(5)(i)(C) of the 40 CFR.
- h. Exceedances of operating parameters - According to section 63.1258(b)(6) of the 40 CFR, an exceedance of an operating parameter is defined as one of the following:
 - i. If the parameter, averaged over the operating day or block, is below a minimum value established during the initial compliance demonstration. [40 CFR §63.1258(b)(6)(i)]
 - ii. If the parameter, averaged over the operating day or block, is above the maximum value established during the initial compliance demonstration. [40 CFR §63.1258(b)(6)(ii)]
- i. Excursions - According to section 63.1258(b)(7) of the 40 CFR, excursions are defined by either of the two cases mentioned below:
 - i. When the period of control device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data, as defined in paragraph (b)(7)(iii) of §63.1258, for at least 75 percent of the operating hours. [40 CFR §63.1258(b)(7)(i)]
 - ii. When the period of control device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data. [40 CFR §63.1258(b)(7)(ii)]
 - iii. Monitoring data are insufficient to constitute a valid hour of data, as used in paragraphs (b)(7)(i) and (ii) of section 63.1258 of the 40 CFR, if measured values are unavailable for any of the required 15-minute periods within the hour. [40 CFR §63.1258(b)(7)(iii)]
- j. Violations - Exceedances of parameters monitored according to the provisions of paragraphs (b)(1)(ii), (iv) through (ix), and (b)(5)(ii)(A) and (B) of section 63.1258, or excursions as defined by paragraphs (b)(7)(i) through (iii) of section 63.1258, constitute violations of the operating limit according to paragraphs (b)(8)(i), (ii), and (iv) of section 63.1258 of the 40 CFR. Exceedances of the temperature limit monitored according to the provisions of paragraph (b)(1)(iii) of section 63.1258 of the 40 CFR or

exceedances of the outlet concentrations monitored according to the provisions of paragraph (b)(1)(x) of section 63.1258 of the 40 CFR constitute violations of the emission limit according to paragraphs (b)(8)(i), (ii), and (iv) of section 63.1258 of the 40 CFR. Exceedances of the outlet concentrations monitored according to the provisions of paragraph (b)(5) of section 63.1258 constitute violations of the emission limit according to the provisions of paragraphs (b)(8)(iii) and (iv) of section 63.1258. [40 CFR §63.1258(b)(8)]

- i. Except as provided in paragraph (b)(8)(iv) of section 63.1258, for episodes occurring more than once per day, exceedances of established parameter limits or excursions will result in no more than one violation per operating day for each monitored item of equipment utilized in the process. [40 CFR §63.1258(b)(8)(i)]
 - ii. Except as provided in paragraph (b)(8)(iv) of section 63.1258 of the 40 CFR, for control devices used for more than one process in the course of an operating day, exceedances or excursions will result in no more than one violation per operating day, per control device, for each process for which the control device is in service. [40 CFR §63.1258(b)(8)(ii)]
 - iii. Except as provided in paragraph (b)(8)(iv) of section 63.1258 of the 40 CFR, exceedances of the 20 ppmv TOC outlet emission limit, averaged over the operating day, will result in no more than one violation per day per control device. [40 CFR §63.1258(b)(8)(iii)]
 - iv. Periods of time when monitoring measurements exceed the parameter values as well as periods of inadequate monitoring data do not constitute a violation if they occur during a startup, shutdown, or malfunction, and the facility follows its startup, shutdown, and malfunction plan. [40 CFR §63.1258(b)(8)(iv)]
39. Monitoring for emission limits - When BMSMC-Barceloneta complies with the process based annual mass limit in the 40 CFR 63.1254(a)(2), continuous compliance with the 900 and 1,800 kg/yr emission limits shall be demonstrated by calculating daily 365-day rolling summations of emissions. During periods of planned routine maintenance when emissions are controlled as specified in Sec. 63.1252(h), BMSMC-Barceloneta must calculate controlled emissions assuming the HAP emissions are reduced by 93%. If BMSMC-Barceloneta opts to switch compliance strategy from the 93% control requirement to the annual mass emission limit method, as described in section 63.1254(a)(1)(i), the rolling summations, beginning with the first day after the switch, must include emissions from the past 365 days. [40 CFR §63.1258(c)]

- a. As approved in the Precompliance Report, BSMC-Barceloneta shall calculate the HAP emissions monthly (for each day of the month) in a 365-day rolling period of those process vents subject to the process based annual mass limit. BSMC-Barceloneta shall keep records with standard and non-standard production (as defined in Section 63.1251 of the 40 CFR) to allow the annual rolling emission calculations. The emissions will be calculated as the product of the standard emissions per batch and the number of batches produced.
40. Monitoring for equipment leaks - Pursuant to 63.1258(d) of the 40 CFR, BSMC-Barceloneta shall meet the monitoring requirements of section 63.1255 of the 40 CFR for equipment leaks.
 41. Inspection and monitoring of waste management units and treatment processes.
 - a. For each wastewater tank, surface impoundment, container, individual drain system, and oil-water separator that receives, manages, or treats wastewater, a residual removed from wastewater, a recycled wastewater, or a recycled residual removed from wastewater, BSMC-Barceloneta shall comply with the inspection requirements specified in Table 7 of subpart GGG of Part 63 of the 40 CFR.
 - b. For each biological treatment unit used to comply with section 63.1256(g), BSMC-Barceloneta shall monitor TSS, BOD, and the MVLSS according to the monitoring requirements of the table included in condition 38 of Section V.B. of this permit
 - c. BSMC-Barceloneta shall monitor the operating parameters of the air strippers according to the table included in condition 38 of Section V.B. of this permit.
 42. Leak inspection provisions for vapor suppression equipment, 40 CFR 63.1258(h)— Except as provided in paragraph (h)(9) and (10) of §63.1258, for each vapor collection system, closed-vent system, fixed roof, cover, or enclosure required to comply with section 63.1258 of the 40 CFR, BSMC-Barceloneta shall comply with the requirements of paragraphs (h)(2) through (8) of section 63.1258(h) of the 40 CFR, described next: [40 CFR §63.1258(h)(1)]
 - a. Except as provided in paragraphs (h)(6) and (7) of section 63.1258, each vapor collection system and closed-vent system shall be inspected according to the procedures and schedule specified in paragraphs the §63.1258(h)(2)(iii). [40 CFR §63.1258(h)(2)]
 - i. If the vapor collection system or closed-vent system is constructed of hard-piping, BSMC-Barceloneta shall:

- (A) Conduct an initial inspection according to the procedures in the §63.1258 (h)(3) of the 40 CFR, and [40 CFR §63.1258(h)(2)(i)(A)]
 - (B) Conduct visual annual inspections for visual, audible or olfactory indications. [40 CFR §63.1258(h)(2)(i)(B)]
- ii. The vapor collection systems and closed vent systems shall be inspected according to the requirements of the 63.1258(h)(3) of the 40 CFR.
- iii. Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as provided in the §63.1258 (h)(5) of the 40 CFR. [40 CFR §63.1258(h)(4)]
 - (A) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. [40 CFR §63.1258(h)(4)(i)]
 - (B) Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in §63.1258 (h)(4)(iii). [40 CFR §63.1258(h)(4)(ii)]
 - (C) For leaks found in vapor collection systems used for transfer operations, repairs shall be completed no later than 15 calendar days after the leak is detected or at the beginning of the next transfer loading operation, whichever is later. [40 CFR §63.1258(h)(4)(iii)]
- iv. Delay of repair of a vapor collection system or closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in §63.1251, or if BSMC-Barceloneta determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next shutdown. [40 CFR §63.1258(h)(5)]
- v. Any parts of the vapor collection system, closed-vent system or enclosure that are designated as unsafe to inspect are exempt from the inspection requirements of paragraphs (h)(2)(i), (ii), and (iii) section 63.1258 it complies with the requirements in paragraphs

(h)(6)(i) and (ii) of section 63.1258 of the 40 CFR. [40 CFR §63.1258(h)(6)]

- vi. Any parts of the vapor collection system, closed-vent system, fixed roof, cover, or enclosure that are designated as difficult to inspect are exempt from the inspection requirements of paragraphs (h)(2)(i), (ii), and (iii)(A) of section 63.1258 if it complies with the requirements in paragraph (h)(7)(i) and (ii) of section 63.1258 of the 40 CFR. [40 CFR §63.1258(h)(7)]
 - vii. Records shall be maintained as specified in §63.1259(i) (4) through (9). [40 CFR §63.1258(h)(8)]
 - viii. If a closed-vent system subject to section 63.1258 is also subject to the equipment leak provisions of section 63.1255 of the 40 CFR, then BSMC-Barceloneta shall comply with the provisions of §63.1255 and is exempt from the requirements of section 63.1258 of the 40 CFR. [40 CFR §63.1258(h)(9)]
43. Planned routine maintenance periods- During periods of planned routine maintenance when organic HAP emissions are controlled as specified in §63.1252(h)(2), BSMC- Barceloneta must monitor the condenser outlet gas temperature according to the procedures specified in paragraph (b)(1)(iii) of section 63.1258 of the 40 CFR. During periods of planned routine maintenance when HCl emissions are controlled as specified in §63.1252(h)(3), BSMC-Barceloneta must monitor the pH of the scrubber effluent once per day. [40 CFR §63.1258(i)]

Recordkeeping requirements [40 CFR §63.1259]

44. According to section 63.1259(a) of the 40 CFR, BSMC-Barceloneta shall comply with the recordkeeping requirements in subpart A of the 40 CFR Part 63 as specified in Table 1 of subpart GGG and in paragraphs (a)(1) through (5) of section 63.1259 of the 40 CFR.
- a. Data retention - BSMC- Barceloneta shall keep copies of all records and reports required by subpart GGG for at least 5 years, as specified in §63.10(b)(1). [40 CFR §63.1259(a)(1)]
 - * b. Startup, shutdown and malfunction plan-
 - * i. BSMC-Barceloneta shall develop and implement a written startup, shutdown, and malfunction plan (SSMP) as specified in section 63.6(e) of the 40 CFR. This plan shall describe, in detail, procedures for operating and maintaining the affected source

during periods of SSM and a program for corrective action for malfunctioning process, control devices, and monitoring equipment used to comply with subpart GGG. BMSMC-Barceloneta shall keep the current and superseded versions of this plan onsite, as specified in §63.6(e)(3)(v). BMSMC-Barceloneta shall keep the startup, shutdown, and malfunction records specified in paragraphs (b)(3)(i) through (iii) of section 63.1259 of the 40 CFR. Reports related to the plan shall be submitted as specified in §63.1260(i) of the 40 CFR.[40 CFR §63.1259(a)(3)]

* ii. The requirements in section 63.6 of the 40 CFR are detailed next:

* (A) (1) At all times, including periods of startup, shutdown, and malfunction¹⁶, BMSMC-Barceloneta must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that BMSMC-Barceloneta reduce emissions from the affected source to the greatest extent, which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require BMSMC-Barceloneta to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require BMSMC-Barceloneta to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to EQB and EPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of section 63.6), review of operation and maintenance

¹⁶ According to 40 CFR §63.2, a malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

records, and inspection of the source. [40 CFR §63.6(e)(1)(i)]

- * (2) Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of section 63.6 of 40 CFR. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, BMSMC-Barceloneta must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices. [40 CFR §63.6(e)(1)(ii)]
- * (3) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.¹⁷ [40 CFR §63.6(e)(1)(iii)]
- * (B) (1) Startup, Shutdown, and Malfunction Plan - BMSMC-Barceloneta must develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard. This plan must be developed by the source's compliance date for that relevant standard. [40 CFR §63.6(e)(3)(i)]
- * (2) During periods of startup, shutdown, and malfunction, BMSMC-Barceloneta must operate and maintain such source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of section 63.6. [40 CFR §63.6(e)(3)(ii)]

¹⁷ According to 40 CFR §63.2, a relevant standard means an emission standard; an alternative emission standard; an alternative emission limitation; or an equivalent emission limitation established pursuant to section 112 of the Act that applies to the stationary source, the group of stationary sources, or the portion of a stationary source regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that EPA (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of part 63 and all applicable appendices of part 63 or of other parts of chapter I that are referenced in that standard.

- * (3) When actions taken by BSMC-Barceloneta during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, BSMC-Barceloneta must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a checklist, or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, BSMC-Barceloneta must keep records of these events as specified in section 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, BSMC-Barceloneta shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in section 63.10(d)(5). [40 CFR §63.6(e)(3)(iii)]

- * (4) If an action taken by BSMC-Barceloneta during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then BSMC-Barceloneta must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with section 63.10(d)(5) (unless BSMC-Barceloneta makes alternative reporting arrangements, in advance, with EQB and EPA. [40 CFR §63.6(e)(3)(iv)]

- * (5) BSMC-Barceloneta must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by EQB or EPA. In addition, if the startup, shutdown, and malfunction plan is subsequently revised, BSMC-Barceloneta must maintain at the affected source each previous (i.e., superseded) version of the startup,

shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by EQB or EPA for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of part 63, BMSMC-Barceloneta must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by EQB or EPA. EQB or EPA may at any time request in writing that BMSMC-Barceloneta submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of BMSMC-Barceloneta. Upon receipt of such a request, BMSMC-Barceloneta must promptly submit a copy of the requested plan (or a portion thereof) to EQB and EPA. EQB or EPA must request BMSMC-Barceloneta submit a particular startup, shutdown, or malfunction plan (or a portion thereof) whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. BMSMC-Barceloneta may elect to submit the required copy of any startup, shutdown, and malfunction plan to EQB and EPA in an electronic format. If BMSMC-Barceloneta claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR §2.301, the material which is claimed as confidential must be clearly designated in the submission. [40 CFR §63.6(e)(3)(v)]

- * (6) To satisfy the requirements of section 63.6 to develop a startup, shutdown, and malfunction plan, BMSMC-Barceloneta may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of section 63.6 and are made available for inspection when requested by EQB or EPA. [40 CFR §63.6(e)(3)(vi)]

- * (7) According to 40 CFR §63.6(e)(3)(vii), and based on the results of a determination made under paragraph (e)(1)(i) of section 63.6, EQB or EPA may require that BSMC-Barceloneta make changes to the startup, shutdown, and malfunction plan for that source. EQB or EPA may require reasonable revisions to a startup, shutdown, and malfunction plan, if EQB or EPA finds that the plan:
 - * (a) Does not address a startup, shutdown, or malfunction event that has occurred;
 - * (b) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of section 63.6;
 - * (c) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
 - * (d) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in Sec. 63.2.

- * (8) BSMC-Barceloneta may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of part 63 or to reflect changes in equipment or procedures at the affected source. Unless EQB or EPA provides otherwise, BSMC-Barceloneta may make such revisions to the startup, shutdown, and malfunction plan without prior approval by EQB or EPA. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by §63.10(d)(5) of the 40 CFR. If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the BSMC-Barceloneta developed the plan, BSMC-Barceloneta must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during

similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that BSMC-Barceloneta makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under part 63, the revised plan shall not take effect until after BSMC-Barceloneta has provided a written notice describing the revision to EQB and EPA. [40 CFR §63.6(e)(3)(viii)]

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 - ii. This title V permit require that BSMC-Barceloneta adopt a startup, shutdown, and malfunction plan which conforms to the provisions of part 63, and that BSMC-Barceloneta operate and maintain the source in accordance with the procedures specified in the current startup, shutdown, and malfunction plan. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by part 63 shall not be deemed to constitute permit revisions under part 70 or part 71 of chapter I of 40 CFR. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act. [40 CFR, §63.6(e)(3)(ix)]
 - c. Recordkeeping requirements for sources with continuous monitoring systems - BSMC-Barceloneta shall maintain records specified in §63.10(c)(1) through (14) for the continuous monitoring systems. [40 CFR §63.1259(a)(4)]
 - d. Application for approval of construction or reconstruction - For new affected sources, BSMC-Barceloneta shall comply with Rule 203 of the RCAP and with the provisions in §63.5 regarding construction and reconstruction, excluding the provisions specified in §63.5(d)(1)(ii)(H), (d)(2), and (d)(3)(ii) of the 40 CFR.
- 45. Records of equipment operation - According to section 63.1259 (b) of the 40 CFR, BSMC-Barceloneta must keep the following records up-to-date and readily accessible:
 - a. Each measurement of a control device operating parameter monitored in accordance with §63.1258 of the 40 CFR and each measurement of a

treatment process parameter monitored in accordance with §63.1258(g)(2) and (3). [40 CFR §63.1259(b)(1)]

- b. For each continuous monitoring system used to comply with subpart GGG, records documenting the completion of calibration checks and maintenance of continuous monitoring systems. [40 CFR §63.1259(b)(3)]
- c. For purposes of compliance with the annual mass limits of §63.1254(a)(2) monthly records (instead of daily) of the rolling annual total emissions, because, as approved in the precompliance report, the emissions will be calculated monthly instead of daily.
- d. Records of the following, as appropriate:
 - i. For processes in compliance with the annual mass limits of §63.1254(a)(2) or (b)(2), the following records are required:
 - (A) the number of batches per year for each batch process; [40 CFR §63.1259(b)(5)(ii)(A)]
 - (B) standard batch uncontrolled and controlled emissions for each process; [40 CFR §63.1259(b)(5)(ii)(C)]
 - (C) Actual controlled emissions for each batch operated during periods of planned routine maintenance of a CCCD, calculated according to §63.1258(c). [40 CFR §63.1259(b)(5)(ii)(D)]
 - (D) Actual uncontrolled and controlled emissions for each nonstandard batch; [40 CFR §63.1259(b)(5)(ii)(E)]
 - (E) A record whether each batch operated was considered a standard batch. [40 CFR §63.1259(b)(5)(ii)(F)]
 - (ii) Wastewater concentration per POD or process, except if they are designed as affected wastewater, according to §63.1256(a)(1)(ii). [40 CFR §63.1259(b)(6)]
 - (iii) A schedule or log of each operating scenario updated daily or, at a minimum, each time a different operating scenario is put into operation. [40 CFR §63.1259(b)(8)]
 - (iv) Description of worst-case operating conditions as required in sections §63.1257(b)(8). [40 CFR §63.1259(b)(9)]

- (v) Periods of planned routine maintenance as described in sections 63.1252(h) and 63.1257(c)(5) of the 40 CFR. [40 CFR §63.1259(b)(10)]
 - (vi) All maintenance performed on the air pollution control equipment. [40 CFR §63.1259(b)(13)]
- 46. Records of operating scenarios - BMSMC-Barceloneta shall keep records of each operating scenario which demonstrates compliance with subpart GGG. [40 CFR §63.1259(c)]
- 47. Records of equipment leak detection and repair programs - BMSMC-Barceloneta shall implement the recordkeeping requirements in section 63.1255 of subpart GGG. [40 CFR §63.1259(d)]
- 48. Records of delay of repair - Documentation of a decision to use a delay of repair due to unavailability of parts, as specified in §63.1256(i), shall include a description of the failure, the reason additional time was necessary (including a statement of why replacement parts were not kept onsite and when delivery from the manufacturer is scheduled), and the date when the repair was completed. [40 CFR §63.1259(f)]
- 49. Record of wastewater stream or residual transfer - BMSMC-Barceloneta shall keep a record of the notice sent to the treatment operator when transferring affected wastewater or a residual removed from affected wastewaters in accordance with the §63.1256(a)(5). The notice shall indicate that the wastewater stream or residual contains organic HAP which are required to be managed and treated in accordance with the provisions of subpart GGG. [40 CFR §63.1259(g)]
- 50. Records of extensions - BMSMC-Barceloneta shall keep documentation of a decision to use an extension, as specified in §63.1256(b)(6)(ii) or (b)(9) of the 40 CFR, in a readily accessible location. The documentation shall include a description of the failure, documentation that alternate storage capacity is unavailable, and specification of a schedule of actions that will ensure that the control equipment will be repaired and the tank will be emptied as soon as practical. [40 CFR §63.1259(h)]
- 51. Records of inspections - BMSMC-Barceloneta shall keep the following records specified in paragraphs (i)(1) through (9) of section 63.1259 of the 40 CFR:
 - a. A record that each waste management unit inspection required by §63.1256(b) through (f) of the 40 CFR was performed. [40 CFR §63.1259(i)(1)]

- b. A record that each inspection for control devices required by §63.1256(h) was performed. [40 CFR §63.1259(i)(2)]
- c. Records identifying all parts of the vapor collection system, closed-vent system, fixed roof, cover, or enclosure that are designated as unsafe to inspect in accordance with §63.1258(h)(6) of the 40 CFR, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. [40 CFR §63.1259(i)(4)]
- d. Records identifying all parts of the vapor collection system, closed-vent system, fixed roof, cover, or enclosure that are designated as difficult to inspect in accordance with §63.1258(h)(7) of the 40 CFR, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. [40 CFR §63.1259(i)(5)]
- e. For each vapor collection system or closed-vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, BSMC-Barceloneta shall keep an hourly records of whether the flow indicator specified under §63.1252(b)(1) was operating and whether a diversion was detected at any time during the hour, as well as records of the times and durations of all periods when the vent stream is diverted from the control device or the flow indicator is not operating. [40 CFR §63.1259(i)(6)(i)]
- f. For each inspection conducted in accordance with §63.1258(h)(2) and (3) during which a leak is detected, a record of the information specified in paragraphs (i)(7)(i) through (ix) of the §63.1259 of the 40 CFR:
 - i. Identification of the leaking equipment. [40 CFR §63.1259(i)(7)(i)]
 - ii. The instrument identification numbers and operator name or initials, if the leak was detected using the procedures described in §63.1258(h)(3); or a record that the leak was detected by sensory observations. [40 CFR §63.1259(i)(7)(ii)]
 - iii. The date the leak was detected and the date of the first attempt to repair the leak. [40 CFR §63.1259(i)(7)(iii)]
 - iv. Maximum instrument reading measured by the method specified in §63.1258(h)(4) after the leak is successfully repaired or determined to be nonrepairable. [40 CFR §63.1259(i)(7)(iv)]
 - v. “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. [40 CFR §63.1259(i)(7)(v)]

- vi. The name, initials, or other form of identification of the owner or operator (or designee) whose decision it was that repair could not be effected without a shutdown. [40 CFR §63.1259(i)(7)(vi)]
 - vii. The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days [40 CFR §63.1259(i)(7)(vii)]
 - viii. Dates of shutdowns that occur while the equipment is unrepaired. [40 CFR §63.1259(i)(7)(viii)]
 - ix. The date of successful repair of the leak. [40 CFR §63.1259(i)(7)(ix)]
- g. For each inspection conducted in accordance with §63.1258(h)(3) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR §63.1259(i)(8)]
 - h. For each visual inspection conducted in accordance with §63.1258(h)(2)(i)(B) or (h)(2)(iii)(B) of the 40 CFR during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR §63.1259(i)(9)]

Reporting Requirements [40 CFR §63.1260]

- 52. BMSMC-Barceloneta shall comply with the reporting requirements of paragraphs (b) through (l) of the §63.1260 of the 40 CFR. Applicable reporting requirements of sections 63.9 and 63.10 are also summarized in Table 1 of this subpart GGG. [40 CFR §63.1260(a)]
- 53. Periodic reports - BMSMC-Barceloneta shall prepare periodic reports in accordance with paragraphs (g)(1) and (2) of §63.1260 and submit them to the Board. [40 CFR §63.1260(g)]
 - a. Submittal schedule - Except as provided in paragraphs (g)(1)(i), (ii), and (iii) of section 63.1260 of the 40 CFR mentioned below, BMSMC-Barceloneta shall submit periodic reports semiannually. The first report shall be submitted no later than 240 days after the Notification of Compliance Status is due (by November 15, 2003) and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due (March 20, 2003). Each subsequent Periodic report shall cover the 6-month period following the preceding period. [40 CFR §63.1260(g)(1)]

- i. The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the affected source; or [40 CFR §63.1260(g)(1)(i)]
 - ii. Quarterly reports shall be submitted when the source experiences an exceedance of a temperature limit monitored according to the provisions of §63.1258(b)(1)(iii) or an exceedance of the outlet concentration monitored according to the provisions of §63.1258(b)(1)(x) or (b)(5). Once an affected source reports quarterly, the affected source shall follow a quarterly reporting format until a request to reduce reporting frequency is approved. If BSMC-Barceloneta submits a request to reduce the frequency of reporting, the provisions in §63.10(e)(3)(ii) and (iii) shall apply, except that the phrase “excess emissions and continuous monitoring system performance report and/or summary report” shall mean “periodic report” for the purposes of section 63.1260 of the 40 CFR. [40 CFR §63.1260(g)(1)(ii)]
 - iii. When a new operating scenario has been operated since the last report, quarterly reports shall be submitted. [40 CFR §63.1260(g)(1)(iii)]
 - b. Content of periodic report [40 CFR §63.1260(g)(2)] - BSMC-Barceloneta shall include the information in paragraphs (g)(2)(i) through (vii) of the 40 CFR §63.1260 of the 40 CFR, as applicable.
54. Notification of Process Change [40 CFR §63.1260(h)]
- a. Except as specified in paragraph (h)(2) of section 63.1260, whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, BSMC-Barceloneta shall submit the information specified in paragraphs (h)(1)(i) through (iv) of section 63.1260 with the next Periodic report required under paragraph (g) of section 63.1260. [40 CFR §63.1260(h)(1)]
 - i. A brief description of the process change. [40 CFR §63.1260(h)(1)(i)]
 - ii. A description of any modifications to standard procedures or quality assurance procedures. [40 CFR §63.1260(h)(1)(ii)]
 - iii. Revisions to any of the information reported in the original Notification of Compliance Status Report under paragraph (f) of section 63.1260. [40 CFR §63.1260(h)(1)(iii)]

- iv. Information required by the Notification of Compliance Status Report under paragraph (f) of section 63.1260 for changes involving the addition of processes or equipment. [40 CFR §63.1260(h)(1)(iv)]
- b. BMSMC-Barceloneta must submit a report 60 days before the scheduled implementation date of either of the following: [40 CFR §63.1260(h)(2)]
 - i. Any change in the activity covered by the Precompliance report. [40 CFR §63.1260(h)(2)(i)]
 - ii. A change in the status of a control device from small to large. [40 CFR §63.1260(h)(2)(ii)]
- * 55. Reports of startup, shutdown, and malfunction [40 CFR §63.1260(i)]— BMSMC-Barceloneta shall prepare startup, shutdown, and malfunction reports as specified in paragraphs (i)(1) and (2) of section 63.1260 of the 40 CFR as follows:
 - * (A) If actions taken by BMSMC-Barceloneta during a startup, shutdown, or malfunction of the affected source (including actions to correct a malfunction) are consistent with the procedures specified in the source's SSMP, BMSMC-Barceloneta shall state this fact in a startup, shutdown, or malfunction report. The report shall also include the information specified in §63.1259(a)(3)(i) and (ii) and shall contain the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy. For the purposes of subpart GGG, the startup, shutdown, and malfunction reports shall be submitted on the same schedule as the periodic reports required under paragraph (g) of section 63.1260 of the 40 CFR instead of the schedule specified in §63.10(d)(5)(i). Reports are only required if a startup, shutdown, or malfunction occurred during the reporting period. [40 CFR §63.1260(i)(1)]
 - * (B) Any time BMSMC-Barceloneta takes an action that is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, BMSMC-Barceloneta shall submit immediate startup, shutdown, and malfunction reports as specified in §63.10(d)(5)(ii). [40 CFR §63.1260(i)(2)]

56. Reports of Leak Detection & Repair Programs [40 CFR §63.1260(j)]– BMSMC-Barceloneta shall implement the reporting requirements in §63.1255 of the 40 CFR. Copies of all reports shall be retained as records for a period of 5 years, in accordance with the requirements of §63.10(b)(1) of the 40 CFR.
57. Notification of Performance Test and Test Plan [40 CFR §63.1260(l)] - Pursuant to §63.1260(l), BMSMC-Barceloneta shall notify the Board of the planned date of a performance test at least 60 days before the test in accordance with §63.7(b). BMSMC-Barceloneta also must submit the test plan required by §63.7(c) and the emission profile required by §63.1257(b)(8)(ii) with the notification of the performance test. Testing shall be done according to the requirements of subpart GGG and in compliance with Rule 106 of the RCAP.

C. Alternate Operating Scenario

Under this permit, the following alternate scenarios are authorized:

a. EUTF1-Alt

This scenario contemplates changes in the material stored in the tanks that could trigger the applicability requirements in the 40 CFR Part 60 Subpart Kb or the construction of new tanks subject to such regulation. BMSMC-Barceloneta shall obtain a construction permit under Rule 203 of the RCAP before constructing, reconstructing or modifying a storage tank, unless it is exempted by Rule 206 of the RCAP. The requirements of the 40 CFR Part 63 Subpart Kb are summarized next.

- i. Storage tanks with a design capacity greater than or equal to 151 m³ that store a volatile organic liquid with a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or tanks with a design capacity greater than or equal to 75 m³ but less than 151 m³ that store a volatile organic liquid with a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall be equipped with a closed vent system and a control device. This equipment shall comply with the following specifications:
 - (A) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b). [40 CFR §60.112b(a)(3)(i)]

- (B) The control device shall be designed and operated to reduce inlet VOC emissions by 95% or greater. [40 CFR §60.112b(a)(3)(ii)]
- ii. Storage vessels with a design capacity greater than or equal to 75 m³ which contains a volatile organic liquid with a maximum true vapor pressure greater than or equal to 76.6 kPa shall be equipped with a closed vent system as specified in §60.112b(a)(3) of the 40 CFR.
 - (A) The tank that is equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2) (other than a flare) is exempt from §60.8 of the General Provisions and shall meet the requirements in section 60.113b(c) of the 40 CFR.
 - (B) After installing control equipment in accordance with §60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), BSMC-Barceloneta shall keep the following records.
 - (1) a copy of the operating plan.
 - (2) a record of the measured values of the parameters monitored in accordance with §60.113b(c)(2) of the 40 CFR.
- iii. Monitoring of operations, 40 CFR 60.116b – For those tanks that are subject to the requirements of subpart Kb, BSMC-Barceloneta shall comply with the monitoring requirements in Section 60.116b of the 40 CFR.

b. EUVO1-MACT-AIt1

This scenario contemplates the implementation of the percent reduction standard for process vents under the 40 CFR 63.1254(a)(1) and (3), instead of the alternate standard (for vent streams routed to the thermal oxidizers) and the annual mass limit on §63.1254(a)(2) of the 40 CFR (for vent streams that are not routed to the thermal oxidizers). For this scenario, shall comply with the following conditions:

- i. The uncontrolled HAP emissions from the sum of all vents within a process operating under this alternate scenario will be reduced by 98% or more.

- ii. In order to achieve the percent reduction required by the previous condition, BMSMC- Barceloneta shall use the thermal oxidizers of emission units EUTO1 and EUTO2, followed by scrubbers.
 - iii. The scrubbers that are located after the thermal oxidizers shall control the emissions of hydrogen halides and halogens from the oxidation of the flue gases in the thermal oxidizer by 95% or more.
 - iv. Notification of a change in the compliance method shall be reported according to the procedures in section 63.1260(h) of the 40 CFR. [40 CFR §63.1254(a)(2)(iv)]
 - v. Pursuant to section 63.1254 (a)(1)(ii) of the 40 CFR, any vent within a process may be controlled to an outlet concentration less than or equal to 20 ppmv as TOC and by the alternate standard of section 63.1254(a)(2) of the 40 CFR. All other vents shall be controlled using the percent reduction contemplated by this alternate scenario.
 - vi. BMSMC- Barceloneta shall comply with all other provisions of the 40 CFR Part 63 Subpart GGG including general standards, reports, records and other, included in section V.B of this permit. For this alternate scenario, only changes the strategy to demonstrate compliance with subpart GGG. BMSMC- Barceloneta shall comply with the monitoring requirements of condition 38 of section V.B. of this permit except that under this alternate scenario, the TOC emissions monitoring at the outlet of the thermal oxidizers is not required.
 - vii. While operating under this alternate scenario, all process vents that are routed to the thermal oxidizers will comply with a 98% reduction included in the section 63.1254(a)(3) of the 40 CFR. All other vents not routed to the thermal oxidizers will comply with the annual mass limit specified in section 63.1254(a)(2) of the 40 CFR.
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c. EUTF1-MACT-Alt

Under this alternate scenario, BSMC- Barceloneta will comply with the storage tanks standards included in the 40 CFR §63.1253(c)(3) instead of §63.1253(d). The conditions for this scenario are the following:

- i. The storage tanks shall be equipped with a closed vent system meeting the conditions of §63.1252(b) with a control device. This control device shall be an enclosed combustion device that provides a minimum residence time of 0.5 seconds at a minimum temperature of 760°C.
- ii. To comply with the previous item, BSMC-Barceloneta shall use the thermal oxidizers (CD01 y CD01), followed by scrubbers (CD01S y CD02S).
- iii. The scrubbers that are located after the thermal oxidizers will control the hydrogen halide and halogens emissions from the oxidation of gases in the thermal oxidizer by 95% or more.
- iv. The notification of change in the method of compliance will be done according to the procedures of section 63.1260(h) of the 40 CFR. [40 CFR §63.1254(a)(2)(iv)]
- v. BSMC-Barceloneta shall comply with all other provisions of the 40 CFR Part 63 Subpart GGG including general standards, reports, records and other, included in section V.B of this permit. For this alternate scenario, only changes the strategy to demonstrate compliance with subpart GGG. BSMC-Barceloneta shall comply with the monitoring requirements of condition 38 of section V.B. of this permit except that under this alternate scenario the TOC emissions monitoring at the outlet of the thermal oxidizers is not required.

d. EUVO1-MACT-Alt2

Under this scenario, BSMC-Barceloneta will comply with Rule 419 of the RCAP, for those processes that do not emit HAPs. The process emissions will be controlled with scrubbers and condensers.

i. Rule 419 of the RCAP [State Enforceable Only]

- (A) According to Rule 419 of the RCAP, the permittee shall not cause or permit the emission of 3 pounds per hour or 15 pounds of VOC in any one day from any article, machine, equipment or any other

contrivance unless it is provided with a control system, pollution prevention and reduction mechanism or programs or both, as approved or required by the Board.

- (B) BMSMC-Barceloneta shall control the VOC emissions of those equipments that require control according to Rule 419 of the RCAP using scrubbers and condensers.
- (C) BMSMC-Barceloneta shall operate the control devices at all times while emissions are generated or could be generated during the manufacturing processes in excess of the quantities established by Rule 419 of the RCAP.
- (E) No process subject to the 40 CFR Part 63 Subpart GGG can be operated under this scenario.

e. EUEG1 - 600 kW Electric Generator (900 hp motor)

The emission unit consists of a 600 kW electric generator. The unit uses diesel at a maximum rate of 44.5 gallons per hour and is limited to 4,000 operating hours per year (12-month rolling period).

Condition	Parameter	Value	Units	Test Method	Frequency of method	Recordkeeping requirements	Reporting frequency
Visible emissions limit	Visible emissions	20	6-minutes average percent	Visible emissions	Weekly	With every reading	60 days after the reading
Particulate matter emission limit	Particulate matter	0.3	Pounds per million Btu	In substitution: Certification by the supplier about the type of fuel used	Each time fuel is received in the facility	Daily records of the fuel type and the sulfur content in the fuel burned	Annual
Sulfur limit in the fuel	Sulfur content	Less than or equal to 1.0	Weight percent	Analysis of the fuel by the supplier	In each fuel delivery	Monthly records of the sulfur content in the fuel and the fuel consumption	Monthly (while the generator is operated)
Operating Limit	Hours of Operation	4,000	Hours per year	Records	Weekly	Logbook	Annual

i. Visible emissions limit

- A. The permittee shall not exceed the opacity limit of 20% (6 minute average) for the unit EUEG1. Nevertheless, and as specified under Rule 403(A) of the RCAP, the permittee may discharge into the atmosphere visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30 minutes period.

- B. BMSMC-Barceloneta shall perform weekly visual inspections during the hours of the day, using a visible emissions reader certified by a program endorsed by EPA or EQB. When a certified reader establishes that the opacity limit is being exceeded according to Rule 403 of the RCAP, BMSMC-Barceloneta shall verify that the equipment and control device causing the visible emissions is operating in accordance with the manufacturer's specifications and permit conditions. If it is not operating adequately, BMSMC-Barceloneta shall take immediate corrective actions to eliminate the excess opacity.
- C. BMSMC-Barceloneta shall keep a copy of the visible emissions reading report including the date and time of the reading for at least five years, in compliance with Rule 603(A)(4)(ii) of the RCAP.
- D. The Board reserves its right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

ii. Particulate matter emission limit

- A. The permittee shall not cause or allow the emission of particulate matter in excess of 0.30 pounds per million Btu of heat input from any fuel burning equipment burning solid or liquid fuel. [Rule 406 of the RCAP]
- B. To demonstrate compliance with the previous condition, BMSMC-Barceloneta shall keep records of the type of fuel used, actual usage and fuel sulfur percent certified by the supplier in the generator. Shall use the most recent emission factors from the AP-42 together with the records of fuel usage and the sulfur content to calculate the particulate matter emissions and demonstrate compliance with the limit established in the previous table. Emission factors from AP-42 of EPA: *Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, Fifth Edition, Office of Air Quality Planning and Standards.*

iii. Sulfur limit in the fuel

- A. The electric generator shall burn diesel with a sulfur content that will not exceed 1.0 weight percent.
- B. BMSMC-Barceloneta shall keep a record to register the sulfur content in the diesel fuel in weight percent each time it is received in the facility. This record shall be made available at all times for review by the Board's and the Environmental Protection Agency's personnel
- C. BMSMC-Barceloneta shall submit an annual report indicating the fuel consumption in the generator and copy of the certification provided by the supplier with respect to the sulfur content no later than the next 15 days of

the month following the one being reported as required by Rule 410 of the RCAP. This report shall be addressed to the Data Validation and Mathematical Modeling Division and shall be available in the facility for review by the Board's technical personnel.

- D. To comply with the previous condition, BMSMC-Barceloneta shall retain a copy of the certificate provided by the supplier indicating the sulfur content in the fuel.
- E. BMSMC-Barceloneta shall retain for at least five years the results of the fuel sampling, annual fuel consumption reports and the sulfur content, in compliance with Rule 603(a)(4)(ii) of the RCAP.

iv. Operating Limit

- A. The electric generator shall operate a maximum of 4,000 hours per year, based in a 12-month rolling period.
- B. BMSMC-Barceloneta shall keep a monthly record to register the hours of operation of the generator and the fuel consumption available for inspection by the Board's technical personnel.
- C. BMSMC-Barceloneta shall keep a record with the make, model, serial number, the electric generator motor capacity and the maximum fuel consumption of the unit. The power of the generator's motor shall not exceed 896 hp and the fuel consumption shall not exceed 44.5 gal/hr. This record shall be available for inspection by the Board's technical personnel. [PFE-09-1101-2337-II-C]

f. EUTO1-MACT-Alt

Under this scenario, the use of ethylene oxide is contemplated in sterilization operations within BMSMC-Barceloneta. The conditions for this scenario are as follows:

- i. The amount of ethylene oxide used in sterilization operations shall not exceed 1 ton/yr.
- ii. Sterilization operations using less than 1 ton of ethylene oxide ¹⁸ are not subject to the emissions standards in of the 40 CFR Part 63 Subpart O, §63.362 (Ethylene Oxide Emissions Standards for Sterilization Facilities). However, the recordkeeping requirements of §63.367(c) of the 40 CFR apply. [40 CFR §63.360(b)]

¹⁸ *Source(s) using less than 1 ton* means source(s) using less than 907 kg (1 ton) of ethylene oxide within all consecutive 12-month periods after December 6, 1996.

- iii. BMSMC-Barceloneta shall maintain records of ethylene oxide use on a 12-month rolling average basis (until the source changes its operations to become a source subject to § 63.362). [40 CFR §63.367(c)]
- iv. Previous to the use of ethylene oxide in the facility, BMSMC-Barceloneta shall obtain a construction permit under Rule 203 of the RCAP, unless it is exempt by Rule 206 of the RCAP.

D. Management of change under the 40 CFR part 63, Subpart GGG (This section is only applicable to those emission units subject to Subpart GGG)

BMSMC-Barceloneta is authorized to make changes to the permit, change the array of the equipment and control devices from the baseline scenario presented in Appendix V of this permit and in the compliance report required by Subpart GGG provided that the changes will guarantee compliance with the 40 CFR Part 63 Subpart GGG and comply with all requirements established in this Section V.E and do not violate the provisions of the RCAP.

- 1. The changes include, but are not limited to:
 - a. reconfigurations of existing equipment.
 - b. operate a process in different sets of equipments.
 - c. operate various processes in any given set of equipment.
 - d. add new solvents or other raw materials.
 - e. add new processes.
 - f. change the applicable compliance alternatives of the 40 CFR Part 63 Subpart GGG.
 - g. eliminate equipment within the same process.
 - h. change the amount of solvent or other raw material in order to improve an existing process.
 - i. add new processes or new equipment in HAP service, as long as they are not modifications under Title I of the Clean Air Act.
 - j. Modification of an existing process so one of the following occurs:

- i. An increase in the uncontrolled emissions flow (in pounds per hour) of any HAP for any emission episode in the process.
 - ii. An increase in the uncontrolled total emissions of any HAP per batch.
2. Limitations - BMSMC-Barceloneta may make changes in the facility provided that:
 - i. the emissions resulting from the change in the process must not exceed the capacity of the control and process equipment as set out in this permit.
 - ii. the changes do not triggers any new applicable requirement or changes an existing one.
 - iii. as a consequence of the change, there is no increase in the allowable emissions.
 - iv. a HAP that has not been emitted previously is not emitted.
 - v. the changes are limited to replicable operating procedures as defined in section in the section V.E of this permit
 - vi. obtains a construction permit under Rule 203 of the RCAP for those changes that constitute a construction or modification as defined in Rule 102 of the RCAP, unless it is exempted by Rule 206 of the RCAP.
 - vii. the change that will be done shall comply always with the permit and with all applicable requirements.
3. Use of the proposed management of change strategy - Unless EQB indicates otherwise, BMSMC-Barceloneta will realize operational changes according to the proposed management of change strategy defined in this section V.E of this permit including the proposed replicable operating procedures.
4. At the time a source wishes to undertake a change that could trigger different obligations under subpart GGG, the source will evaluate first whether the change is within the scope of a preapproved alternative operating scenario in the permit. If so, the source will select the appropriate compliance options from the alternatives approved in the permit and implement the change consistent with the terms of the permit governing such selection. The alternatives included in this section V.E will allow BMSMC-Barceloneta to shift to their compliance obligations governing the change and where applicable, to select among the

control devices at the facility that have been approved as capable of achieving compliance.

- i. The source will determine if the initial emissions profile of the baseline scenario changes and to what extent. For this, the uncontrolled emissions will be calculated using the equations in the Control Techniques Guidelines of 1978 included in the CAIMS System (Clean Air Information Management Systems), as approved in the precompliance report.
 - ii. BMSMC-Barceloneta must ensure that under the new emissions profile, the control device will be capable of guaranteeing compliance with subpart GGG.
 - iii. BMSMC-Barceloneta will compare the emissions in the worst case with the new emissions. If the worst-case emissions will not be exceeded, the process change can be realized and the permit does not have to be revised (unless required to assure compliance with applicable requirements other than those of subpart GGG).
 - * iv. If during the evaluation of the change, BMSMC-Barceloneta finds out that a new worst case has been created by the change which results in an emission rate above the emission rate of the control device tests, that changes the considerations under section 63.1257 (b)(8) of the 40 CFR of the absolute worst case tests for the control devices, the permit must be revised to determine whether the change can be made. In order to support the revision, BMSMC-Barceloneta will have to perform a design evaluation or additional testing, as required by subpart GGG to determine if the equipment has sufficient capacity to control the new scenario to comply with Subpart GGG. No test will be required for changes in production which result in emission rates which are equal or are under the emission rates of the control devices tests.
 - v. BMSMC-Barceloneta shall keep records of all calculations performed to determine the emissions of the new process step and the total emissions of the improved process and the comparison of emissions from the improved process with the previously established worst-case emissions analysis. If the change can be made without permit revision, BMSMC-Barceloneta is required to maintain records in the OSIL showing when the change was made and how the new vent is controlled.
5. BMSMC-Barceloneta may use the compliance matrix included in this section to select the appropriate compliance options of the approved alternatives in this permit and will implement the change consistent with the permit terms governing such selection.

6. The capacity of BSMC-Barceloneta to accommodate a change in the preapproved alternate operating scenario using the compliance matrix will depend on:
 - a. the performance capabilities and any capacity limitations on control devices as approved in this permit;
 - b. subpart GGG's provisions governing that change are limited to replicable operating procedures for determining emissions and applicable emissions limits;
 - c. the changed emissions fall within the performance limits of the control device;
 - d. there are no changes in the monitoring requirements for the control device;
 - e. the changes in scenario are recorded;
 - f. the change does not constitute a modification under Title I of the Clean Air Act;
 - g. if applicable, a Rule 203 construction permit is obtained, unless it is exempt by Rule 206 of the RCAP.

- * 7. BSMC-Barceloneta shall maintain an onsite implementation log (OSIL) and the associated documents to document all process changes (including all process equipment added under the proposed change management strategy) and to document the current operating scenario for each process in operation at the facility. Failure to maintain the OSIL and associated records, failure to revise the OSIL each time the process operating scenario changes, and failure to operate according to the compliance obligations established in the OSIL may be considered violations to this permit. The operating scenario included in the OSIL for each process must include the following information:
 - a. A description of the process and the type of process equipment used
 - b. An identification of related process vents and their associated emissions episodes and durations, wastewater points of determination (PODs) and tanks;
 - c. The applicable control requirements of Subpart GGG, including the level of required control.

- d. The control or treatment devices used, as applicable, including a description of operating and testing conditions for any associated control device.
 - e. The process vents, wastewater points of determination (PODs) and storage tanks (including those from other processes) that are simultaneously routed to the control or treatment devices.
 - f. The applicable monitoring requirements of Subpart GGG and any parametric level that assures compliance for all emissions routed to the control or treatment device.
 - g. Calculations and engineering analyses required to demonstrate compliance, including the basis for such calculations and analyses.
 - h. Verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed.
8. BMSMC-Barceloneta shall notify process changes or changes in the information submitted in the Notification of Compliance Status Report, as specified in condition 54 of section (V)(B) of this permit.
 9. The OSIL, in conjunction with the information contained in the permit, monitoring records, and any other available information and belief formed after reasonable inquiry, will provide the basis for making annual compliance certifications. The Board will use this record to verify when processes were being operated, to identify which emissions points from each process were controlled and how, and to determine whether the control devices were operated at performance levels that assured compliance with subpart GGG.
 10. The source must operate consistently with the emission calculations performed for the operating scenario described in the OSIL.
 11. Preapproval of changes
 - a. Like-kind replacement of permitted process equipment which is functionally equivalent to and provides no greater production capacity than the equipment being retired is allowed. The replacement transaction, and identification of the new process equipment, must be recorded in the OSIL along with other information necessary to reflect the changed operating scenario. The preapproval approach does not allow the substitution of new process equipment for permitted equipment that will remain in service elsewhere at the source.

12. The Board reserves the right to require that the source registers additional information and compliance information in the OSIL thus assuring compliance with subpart GGG.
13. BMSMC-Barceloneta will use the following replicable procedure for management of changes authorized under this section V.E for the units subject to the 40 CFR Part 63 Subpart GGG:

Table 1 - Procedures that are Replicable as Written in Subpart GGG

Procedure	Citation (40 CFR Part 63)
Calculating uncontrolled emissions from process vents - equations for eight types of operations.. ¹⁹	§63.1257 (d)(2)(i)(A) through (H)
Calculating controlled emissions from process vents discharged through a condenser- equations for eight types of operations	§63.1257 (d)(3)(i)(B)(1) through (8)
Equations for determining whether an existing vent is subject to 98% control	§63.1254(a)(3)(i)
Maximum true vapor pressure for determining storage tank applicability	§63.1251 (Definitions)
Performance test methods and calculations required by EPA	§63.1257(a)(2), (a)(3), (b)(1) through (8), and (b)(10)(i) through (iii)
Capacity threshold to determine storage tanks applicability	§63.1253(a)
Evaluation of an air pollution control device capability for new scenario (not subject to testing)	§63.1257(b)(8)(ii)
Capacity threshold for determining if continuous monitoring of a control device is required or if periodic monitoring is sufficient	§63.1258(b)(1)(i)
LDAR requirements for all components in HAP service	§63.1255

¹⁹ According to the precompliance report, BMSMC-Barceloneta will use the *1978 Control Techniques Guidelines* equations for pharmaceutical operations, included in the CAIMS (*Clean Air Information Management Systems*) system.

Procedure	Citation (40 CFR Part 63)
Capacity threshold for determining if a control device performance test is required.	§63.1257(d)(3)(ii)

Table 2 - Procedures that are replicable as written in this permit

Procedure	40 CFR Part 63 Citation or Other Basis
Uncontrolled halogen and halide emissions shall be determined by mass balance assuming the chlorine content of all chlorinated solvents introduced to a thermal oxidizer is converted to HCl	§63.1257 and the Compliance report
MACT affected process wastewaters shall be designated as “affected”	§63.1256(a)(1)(ii) and the Compliance Report
No floor drain system shall receive any MACT affected wastewaters	Compliance Report
For the purpose of demonstrating compliance with 40 CFR 63.1256(g)(11), BMSMC-Barceloneta shall assume 0% removal efficiency for all compounds except Acetonitrile, Methanol, Methyl Isobutyl Ketone (MIBK), Methylene Chloride and Toluene	Box Test submitted as part of the Compliance Report
Reactor heat exchange systems shall comply with 21 CFR 211 GMP requirements and need not otherwise monitor for leaks	§63.1252(c)(2)
Other heat exchange systems shall satisfy MACT requirements by maintaining supply side pressure at the proper differential	§63.1252(c)(1) §63.104
The thermal oxidizer design ensures $\frac{3}{4}$ second retention time	§63.1258(b)(5)(ii)(A)(2) and the Precompliance report
No floor drain system shall receive any MACT affected wastewaters except during periods of malfunction and/or spills	Compliance Report

Procedure	40 CFR Part 63 Citation or Other Basis
PBAML calculations shall be performed once per month for each operating day of the prior month in lieu of performing the calculations each operating day	Precompliance report

14. Management of Change Strategy Implementation - BMSMC-Barceloneta will use the following tables to determine the applicable requirements when making changes in the emission units of the facility subject to the requirements of subpart GGG. If the change could not be accommodated within the procedures established in these tables, and there is no other provision in this permit or in the applicable regulations authorizing such change, BMSMC-Barceloneta will request for a modification of this permit before making the change, according to Part VI of the RCAP.
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Table 3 - GENERAL STANDARDS COMPLIANCE MATRIX [40 CFR §63.1252] (continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>Closed-vent systems that contain bypass lines that could divert a vent stream away from a control device used to comply with Subpart GGG §63.1252(b)</p>	<p>Do not open the bypass unless for safety reasons §63.1252(a)</p>	<p>Install, calibrate and maintain a flow indicator that determines whether flow is present §63.1252(b)(1), or</p> <p>Secure the bypass line in the closed position with a car seal or lock and key type §63.1252(b)(2)</p>	<p>Notification of process change</p>	<p>Flow indicator reading every 15 minutes, or</p> <p>Inspect once per month §63.1252(b)(2)</p>	<p>Recordkeeping requirements for sources with continuous monitoring systems §63.10(c)(1) through §63.10(c)(14) §63.1259(a)(4)</p> <p>SSM Records §63.1259(a)(3)</p> <p>General Recordkeeping §63.10(b)(1)</p> <p>Hourly records of whether the flow indicator specified in §63.1252(b)(1) was operating and whether a diversion was detected, as well as records of the times and durations of all diversions or when the flow indicator is not working §63.1259(i)(6)(i), or</p> <p>Records that the monthly inspections have been performed and records of the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed or the key for a lock and key type lock has been checked out §63.1259(i)(6)(ii)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of Process Change §63.1260(h)</p> <p>SSM Reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 3 - GENERAL STANDARDS COMPLIANCE MATRIX [40 CFR §63.1252] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
Combustion devices used to comply with Subpart GGG for a halogenated vent stream §63.1252(g)	<p>A halogen reduction device after the combustion device must reduce overall emissions of hydrogen halides and halogens by 95 percent (daily average) or to concentration less than or equal to 20 ppmv §63.1252(g)(1)</p> <p>A halogen reduction device located before the combustion device must reduce the halogen atom content of the vent stream to a concentration less than or equal to 20 ppmv (daily average) §63.1252(g)(2)</p>	Post combustion device scrubbers	<p>Initial compliance demonstration per Method 26 or 26A §63.1257(b)(iii)</p> <p>Worst-case test conditions §63.1257(b)(8)</p>	<p>Monitor liquid flow rate and record every 15 minutes §63.1258(b)(1)(ii)</p> <p>Monitoring device accuracy \pm 10 percent of design flow rate §63.1258(b)(1)(ii)(B)</p> <p>Calibrate flow rate monitor annually §63.1258(b)(1)(ii)(C)</p> <p>Monitor pH once per day §63.1258(b)(1)(ii)</p> <p>Leak inspection requirements for vapor suppression equipment §63.1256(h)</p>	<p>Recordkeeping requirements for sources with continuous monitoring systems §63.10(c)(1) through §63.10(c)(14) §63.1259(a)(4)</p> <p>SSM Records §63.1259(a)(3)</p> <p>General Recordkeeping Requirements §63.10(b)(1)</p> <p>Records of equipment operation including each measurement of a control device operating parameter §63.1259(b)(1)</p> <p>Description of worst-case operating conditions §63.1259(b)(9)</p> <p>Records of all maintenance performed on air pollution control equipment §63.1259(b)(11)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM Reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 4 –STORAGE TANKS COMPLIANCE MATRIX [40 CFR §63.1253]

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>Storage tanks with a design capacity greater than or equal to 38 m³ but less than 75 m³ storing an organic liquid for which the maximum true vapor pressure of total HAP is greater than or equal to 13.1 kPa §63.1253(a)(1)</p>	<p>Equip the storage tank with a closed-vent system that reduces inlet emissions of total HAP by 90 percent by weight or greater (daily average) §63.1253(b)(1), or</p> <p>Equip the storage tank with an enclosed combustion device that provides a minimum residence time of 0.5 seconds at a minimum temperature of 760°C §63.1253(b)(3), or</p> <p>Alternative Standard – route storage tank vents to a combustion device achieving an outlet TOC concentration, as calibrated on methane or the predominant HAP, of 20 ppmv or less and an outlet concentration of hydrogen halides and halogens of 20 ppmv or less §63.1253(d)</p> <p>The control requirement for storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance shall not exceed 240 hours in any 365-day period §63.1253(e)</p>	<p>Thermal Oxidizer and Scrubber Operating in Series</p>	<p>Performance test requirements §63.1257(c)(1), or</p> <p>Exemption from performance test requirements if the control device is also used to comply with the Process Vent standards §63.1257(c)(1)(iii), or</p> <p>Design evaluation §63.1257(c)(2)</p> <p>Initial compliance demonstration per Method 25 or 25A and Method 26 or 26A if the Performance test option is selected §63.1257(b)(iii)</p> <p>Alternative Standard §63.1257(a)(5) §63.1257(c)(4)</p>	<p>Monitor the minimum temperature of the gases exiting the combustion chamber which must be measured and recorded at least once every 15 minutes during the period in which the combustion device is functioning in achieving the required HAP removal §63.1258(b)(1)(vii)</p> <p>The temperature monitoring device must be accurate to within +/- 0.75 percent of the temperature measured in degrees Celsius or +/- 2.5°C, whichever is greater. §63.1258(b)(1)(vii)(A)</p> <p>The temperature monitoring device must be calibrated annually §63.1257(b)(1)(vii)(B)</p> <p>Monitor liquid flow rate and record every 15 minutes. §63.1258(b)(1)(ii)</p> <p>Monitoring device accuracy ± 10 percent of design flow rate §63.1258(b)(1)(ii)(B)</p> <p>Calibrate flow rate monitor annually §63.1258(b)(1)(ii)(C)</p> <p>Monitor pH once per day §63.1258(b)(1)(ii)</p> <p>Alternative Standard– §63.1258(b)(5)</p> <p>Leak inspection requirements for vapor suppression equipment §63.1256(h)</p>	<p>SSM Records §63.1259(a)(3)</p> <p>General Recordkeeping §63.10(b)(1)</p> <p>Records of equipment operation including each measurement of a control device operating parameter §63.1259(b)(1)</p> <p>Recordkeeping requirements for sources with continuous monitoring systems §63.10(c)(1) through §63.10(c)(14) §63.1259(a)(4)</p> <p>For each CMS, records documenting the completion of calibration checks and maintenance of continuous monitoring systems §63.1259(b)(3)</p> <p>Records of periods of planned routine maintenance §63.1258(b)(10)</p> <p>Records of Inspections §63.1259(i)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM Reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 4 –STORAGE TANKS COMPLIANCE MATRIX [40 CFR §63.1253] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>Storage tanks with a design capacity greater than or equal to 75 m³ storing an organic liquid for which the maximum true vapor pressure of total HAP is greater than or equal to 13.1 kPa §63.1253(a)(2)</p>	<p>Equip the storage tank with a closed-vent system that reduces inlet emissions of total HAP by 95 percent by weight or greater (daily average) §63.1253(c)(1)(i), or</p> <p>Equip the storage tank with an enclosed combustion device that provides a minimum residence time of 0.5 seconds at a minimum temperature of 760°C §63.1253(b)(3), or</p> <p>Alternative Standard – route storage tank vents to a combustion device achieving an outlet TOC concentration, as calibrated on methane or the predominant HAP, of 20 ppmv or less and an outlet concentration of hydrogen halides and halogens of 20 ppmv or less §63.1253(d)</p> <p>The control requirement for storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance shall not exceed 240 hours in any 365-day period</p>	<p>Thermal Oxidizer and Scrubber Operating in Series</p>	<p>Performance test requirements §63.1257(c)(1), or</p> <p>Exemption from performance test requirements if the control device is also used to comply with the Process Vent standards §63.1257(c)(1)(iii), or</p> <p>Design Evaluation §63.1257(c)(2)</p> <p>Initial compliance demonstration per Method 25 or 25A and Method 26 or 26A if the Performance test option is selected §63.1257(b)(iii)</p> <p>Alternative Standard §63.1257(a)(5) §63.1257(c)(4)</p>	<p>Monitor the minimum temperature of the gases exiting the combustion chamber which must be measured and recorded at least once every 15 minutes during the period in which the combustion device is functioning in achieving the required HAP removal §63.1258(b)(1)(vii)</p> <p>The temperature monitoring device must be accurate to within +/- 0.75 percent of the temperature measured in degrees Celsius or +/- 2.5°C, whichever is greater. §63.1258(b)(vii)(A)</p> <p>The temperature monitoring device must be calibrated annually §63.1257(b)(1)(vii)(B)</p> <p>Monitor liquid flow rate and record every 15 minutes. §63.1258(b)(1)(ii)</p> <p>Monitoring device accuracy ± 10 percent of design flow rate §63.1258(b)(1)(ii)(B)</p> <p>Calibrate flow rate monitor annually §63.1258(b)(1)(ii)(C)</p> <p>Monitor pH once per day §63.1258(b)(1)(ii)</p> <p>Alternative Standard– §63.1258(b)(5)</p> <p>Leak inspection requirements for vapor suppression equipment §63.1256(h)</p>	<p>SSM Records §63.1259(a)(3)</p> <p>General Recordkeeping §63.10(b)(1)</p> <p>Records of equipment operation including each measurement of a control device operating parameter §63.1259(b)(1)</p> <p>Recordkeeping requirements for sources with continuous monitoring systems §63.10(c)(1) through §63.10(c)(14) §63.1259(a)(4)</p> <p>For each CMS, records documenting the completion of calibration checks and maintenance of continuous monitoring systems §63.1259(b)(3)</p> <p>Records of periods of planned routine maintenance §63.1258(b)(10)</p> <p>Records of Inspections §63.1259(i)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM Reports §63.1260(i) y §63.10(d)(5)(ii)</p>

Table 5 – PROCESS VENTS COMPLIANCE MATRIX [40 CFR §§63.1254]

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>At an existing source, process vents within a process subject to Subpart GGG that are not subject to the individual emission vent reduction requirements of §63.1254(a)(3) or the process based annual mass limit of §63.1254(a)(2)</p>	<p>Uncontrolled HAP emissions shall be reduced by 93 percent by weight or greater (daily average) §63.1254(a)(1)(i)</p> <p>Any one or more vents within a process may be controlled by any of the following procedures.</p> <p>- To outlet concentrations less than or equal to 20 ppmv as TOC and less than or equal to 20 ppmv as hydrogen halides and halogens §63.1254(1)(i)(A)</p> <p>- In accordance with the Alternative Standard §63.1254(a)(1)(i)(D)</p> <p>All other vents within the process must be controlled as specified at §63.1254(a)(1)(i) §63.1254(a)(1)(ii)</p>	<p>Thermal Oxidizer and Scrubber Operating in Series</p>	<p>Performance test §63.1257(d)(1)</p> <p>Initial compliance demonstration per Method 25 or 25A and Method 26 or 26A for the percent reduction standards §63.1257(b)(iii)</p> <p>Worst-case test conditions §63.1257(b)(8)</p> <p>Initial compliance with process vent provisions for the percent reduction requirements of §63.1257(a)(1) & (3) §63.1257(d)(i)(ii)</p> <p>Initial compliance demonstration for process condensers not followed by an air pollution control device that complies with the Alternative Standard or a condenser §63.1257(d)(3)(iii) as modified by the Precompliance Report</p> <p>Initial compliance with the process vent provisions for the process based annual mass limits of §63.1254(a)(2) §63.1257(d)(1)(i)</p> <p>Initial compliance demonstration for the Alternative Standard §63.1257(a)(5)</p> <p>Design evaluation §63.1257(c)(2), §63.1257(c)(4)</p>	<p>Monitor the minimum temperature of the gases exiting the combustion chamber which must be measured and recorded at least once every 15 minutes during the period in which the combustion device is functioning in achieving the required HAP removal §63.1258(b)(1)(vii)</p> <p>The temperature monitoring device must be accurate to within +/- 0.75 percent of the temperature measured in degrees Celsius or +/- 2.5°C, whichever is greater. §63.1258(b)(1)(vii)(A)</p> <p>The temperature monitoring device must be calibrated annually §63.1257(b)(1)(vii)(B)</p> <p>Monitor liquid flow rate and record every 15 minutes. §63.1258(b)(1)(ii)</p> <p>Monitoring device accuracy ± 10 percent of design flow rate §63.1258(b)(1)(ii)(B)</p> <p>Calibrate flow rate monitor annually §63.1258(b)(1)(ii)(C)</p> <p>Monitor pH once per day §63.1258(b)(1)(ii)</p> <p>Alternative Standard – §63.1258(b)(5)</p> <p>Leak inspection requirements for vapor suppression equipment §63.1256(h)</p>	<p>SSM Records §63.1259(a)(3)</p> <p>Data retention for at least 5 years §63.10(b)(1)</p> <p>Records of equipment operation including each measurement of a control device operating parameter §63.1259(b)(1)</p> <p>Recordkeeping requirements for sources with continuous monitoring systems §63.10(c)(1) through §63.10(c)(14), §63.1259(a)(4)</p> <p>For each CMS, records documenting the completion of calibration checks and maintenance of continuous monitoring systems §63.1259(b)(3)</p> <p>Descriptions of worst-case operating conditions §63.1258(b)(9)</p> <p>Records of Inspections §63.1259(i)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM Reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 5– PROCESS VENTS COMPLIANCE MATRIX [40 CFR §63.1254] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>At an existing source, process vents within a process subject to Subpart GGG §63.1254(a)(2)</p>	<p>PBAML</p> <p>Actual HAP emissions from the sum of all process vents within a process must not exceed 900 kg in any 365 day period §63.1254(a)(2)(i), and</p> <p>Actual HAP emissions from the sum of all process vents within processes complying with the Process-based annual mass limit are limited to 1,800 kg in any 365-day period §63.1254(a)(2)(ii)</p> <p>Emissions from process vents that are subject to the requirements of §63.1254(a)(3) or §63.1254(c) may be excluded from the sums calculated to determine compliance with the 900 kg per process and 1800 kg per site annual mass limits §63.1254(a)(2)(iii)</p>	<p>Process-based annual mass limit for process vent streams that are not amenable to control by the TOU complex limiting emissions per process and per the plant</p>	<p>Initial compliance with the PBAML §63.1257(d)(1)(i)</p> <p>Initial compliance demonstration for process condensers not followed by an air pollution control device that complies with the Alternative Standard or a condenser §63.1257(d)(3)(iii) as modified by the Precompliance Report</p>	<p>Monitoring for emission limits per §63.1257(c) – daily calculation of 365-day rolling summaries of emissions</p> <p>Calculations to be performed once per month for each day of the month per Precompliance Report</p>	<p>SSM Records §63.1259(a)(3)</p> <p>Data retention for at least 5 years §63.10(b)(1)</p> <p>The number of batches per year for each batch process §63.1258(b)(5)(ii)(A)</p> <p>Actual controlled and uncontrolled emissions for each nonstandard batch §63.1259(b)(5)(ii)(E)</p> <p>A record whether each batch was considered a standard batch §63.1258(b)(5)(ii)(F)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 5 - PROCESS VENTS COMPLIANCE MATRIX [40 CFR §63.1254] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>Any individual process vent at an existing source that has uncontrolled HAP emissions of more than 25 tons per year and whose flow-weighted average flow rate (Fra) calculated using equation 1 of Subpart GGG is less than or equal to the flow rate index calculated using equation 2 of Subpart GGG §63.154(a)(3)</p>	<p>Uncontrolled HAP emissions must be reduced by 98 percent, daily average or</p> <p>- To outlet concentrations less than or equal to 20 ppmv as TOC and less than or equal to 20 ppmv as hydrogen halides and halogens §63.1254(1)(i)(A)</p> <p>- In accordance with the Alternative Standard §63.1254(a)(1)(i)(D), §63.1254(a)(3)</p>	<p>Thermal Oxidizer and Scrubber Operating in Series</p>	<p>Performance test §63.1257(d)(1)</p> <p>Initial compliance demonstration per Method 25 or 25A and Method 26 or 26A for the percent reduction standards §63.1257(b)(iii)</p> <p>Worst-case test conditions §63.1257(b)(8)</p> <p>Initial compliance with process vent provisions for the percent reduction requirements of §63.1257(a)(1) & (3), §63.1257(d)(i)(ii)</p> <p>Initial compliance demonstration for process condensers not followed by an air pollution control device that complies with the Alternative Standard or a condenser §63.1257(d)(3)(iii) as modified by the Precompliance Report</p> <p>Initial compliance demonstration for the Alternative Standard §63.1257(a)(5) §63.1257(e)(4)</p>	<p>Monitor the minimum temperature of the gases exiting the combustion chamber which must be measured and recorded at least once every 15 minutes during the period in which the combustion device is functioning in achieving the required HAP removal §63.1258(b)(1)(vii)</p> <p>The temperature monitoring device must be accurate to within +/- 0.75 percent of the temperature measured in degrees Celsius or +/- 2.5°C, whichever is greater. §63.1258(b) (1) (vii)(A)</p> <p>The temperature monitoring device must be calibrated annually §63.1257(b)(1)(vii)(B)</p> <p>Monitor liquid flow rate and record every 15 minutes §63.1258(b)(1)(ii)</p> <p>Monitoring device accuracy ± 10 percent of design flow rate §63.1258(b)(1)(ii)(B)</p> <p>Calibrate flow rate monitor annually §63.1258(b)(1)(ii)(C)</p> <p>Monitor pH once per day §63.1258(b)(1)(ii)</p> <p>Alternative Standard §63.1258 (b)(5)</p> <p>Leak inspection requirements for vapor suppression equipment §63.1256(h)</p>	<p>SSM Records §63.1259(a)(3)</p> <p>Data retention for at least 5 years §63.10(b)(1)</p> <p>Records of equipment operation including each measurement of a control device operating parameter §63.1259(b)(1)</p> <p>Recordkeeping requirements for sources with continuous monitoring systems §63.10(c)(1) through §63.10(c)(14) §63.1259(a)(4)</p> <p>For each CMS, records documenting the completion of calibration checks and maintenance of continuous monitoring systems §63.1259(b)(3)</p> <p>Descriptions of worst-case operating conditions §63.1258(b)(9)</p> <p>Records of Inspections §63.1259(i)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 5 – PROCESS VENTS COMPLIANCE MATRIX [40 CFR §63.1254] (Continued)

Affected source and emission point	Standard	Compliance options	Performance testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
Any Process Vents	Alternative Standard – Route process vents to a combustion device achieving an outlet TOC concentration, as calibrated on methane or the predominant HAP, of 20 ppmv or less and an outlet concentration of hydrogen halides and halogens of 20 ppmv or less	Thermal Oxidizer and Scrubber Operating in Series	Alternative Standard §63.1257(d)(1)(iv) §63.1257(a)(5)	<p>Alternative Standard TOC CEMS meeting PS 8 or 9 §63.1258(b)(5)</p> <p>Alternative Standard provisions for combustion devices §63.1258(b)(5)(ii)(A)(2)</p> <p>Alternative Standard – scrubber option for HCl control §63.1258(b)(5)(i)(C)</p> <p>Monitor the minimum temperature of the gases exiting the combustion chamber which must be measured and recorded at least once every 15 minutes during the period in which the combustion device is functioning in achieving the required HAP removal §63.1258(b)(1)(vii)</p> <p>The temperature monitoring device must be accurate to within +/- 0.75 percent of the temperature measured in degrees Celsius or +/- 2.5°C, whichever is greater. §63.1258(b) (1) (vii)(A)</p> <p>The temperature monitoring device must be calibrated annually §63.1257(b)(1)(vii)(B)</p> <p>Monitor liquid flow rate and record every 15 minutes, §63.1258(b)(1)(ii)</p> <p>Monitoring device accuracy ± 10 percent of design flow rate §63.1258(b)(1)(ii)(B)</p> <p>Calibrate flow rate monitor annually §63.1258(b)(1)(ii)(C)</p> <p>Monitor pH once per day §63.1258(b)(1)(ii)</p> <p>Alternative Standard – §63.1258(b)(5)</p> <p>Leak inspection requirements for vapor suppression equipment §63.1256(h)</p>	<p>SSM Records §63.1259(a)(3)</p> <p>Data retention for at least 5 years §63.10(b)(1)</p> <p>Records of equipment operation including each measurement of a control device operating parameter §63.1259(b)(1)</p> <p>Recordkeeping requirements for sources with continuous monitoring systems 63.10(c)(1) through §63.10(c)(14), §63.1259(a)(4)</p> <p>For each CMS, records documenting the completion of calibration checks and maintenance of continuous monitoring systems §63.1259(b)(3)</p> <p>Records of Inspections §63.1259(i)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 5 –PROCESS VENTS COMPLIANCE MATRIX [40 CFR §63.1254] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>New source process vents</p> <p>The sum of all process vents within a process at a new affected source</p>	<p>Reduce uncontrolled HAP emissions by 98 percent (daily average) or</p> <p>- To outlet concentrations less than or equal to 20 ppmv as TOC and less than or equal to 20 ppmv as hydrogen halides and halogens §63.1254(1)(i)(A)</p> <p>- In accordance with the Alternative Standard §63.1254(b)(1)</p>	<p>Thermal Oxidizer and Scrubber Operating in Series</p>	<p>Performance test §63.1257(d)(1)</p> <p>Initial compliance demonstration per Method 25 or 25A and Method 26 or 26A for the percent reduction standards §63.1257(b)(iii)</p> <p>Worst-case test conditions §63.1257(b)(8)</p> <p>Initial compliance with process vent provisions for the percent reduction requirements of §63.1257(a)(1) & (3), §63.1257(d)(i)(ii)</p> <p>Initial compliance demonstration for process condensers not followed by an air pollution control device that complies with the Alternative Standard or a condenser §63.1257(d)(3)(iii) as modified by the Precompliance Report</p> <p>Initial compliance demonstration for the Alternative Standard §63.1257(a)(5), §63.1257(c)(4)</p>	<p>Monitor the minimum temperature of the gases exiting the combustion chamber which must be measured and recorded at least once every 15 minutes during the period in which the combustion device is functioning in achieving the required HAP removal §63.1258(b)(1)(vii)</p> <p>The temperature monitoring device must be accurate to within +/- 0.75 percent of the temperature measured in degrees Celsius or +/- 2.5°C, whichever is greater. §63.1258(b)(1)(vii)(A)</p> <p>The temperature monitoring device must be calibrated annually §63.1257(b)(1)(vii)(B)</p> <p>Monitor liquid flow rate and record every 15 minutes §63.1258(b)(1)(ii)</p> <p>Monitoring device accuracy ± 10 percent of design flow rate §63.1258(b)(1)(ii)(B)</p> <p>Calibrate flow rate monitor annually §63.1258(b)(1)(ii)(C)</p> <p>Monitor pH once per day §63.1258(b)(1)(ii)</p> <p>Alternative Standard §63.1258(b)(5)</p> <p>Leak inspection requirements for vapor suppression equipment §63.1256(h)</p>	<p>SSM Records §63.1259(a)(3)</p> <p>Data retention for at least 5 years §63.10(b)(1)</p> <p>Records of equipment operation including each measurement of a control device operating parameter §63.1259(b)(1)</p> <p>Recordkeeping requirements for sources with continuous monitoring systems §63.10(c)(1) through §63.10(c)(14) §63.1259(a)(4)</p> <p>For each CMS, records documenting the completion of calibration checks and maintenance of continuous monitoring systems §63.1259(b)(3)</p> <p>Descriptions of worst-case operating conditions §63.1258(b)(9)</p> <p>Records of Inspections §63.1259(i)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 5 –PROCESS VENTS COMPLIANCE MATRIX [40 CFR §63.1254] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>New Sources</p> <p>Any process vents not complying with §63.1254(b)(1)</p>	<p>The sum of all process vents shall not exceed 900 kg in any 365-day period §63.1254(b)(2)</p>	<p>Maintain emissions within PBAML allowance</p>	<p>Initial compliance with the PBAML §63.1257(d)(1)(i)</p> <p>Initial compliance demonstration for process condensers not followed by an air pollution control device that complies with the Alternative Standard or a condenser §63.1257(d)(3)(iii) as modified by the Precompliance Report</p>	<p>Monitoring for emission limits per §63.1257(c) – daily calculation of 365-day rolling summaries of emissions</p> <p>Calculations to be performed once per month for each day of the month per Precompliance Report</p>	<p>SSM Records §63.1259(a)(3)</p> <p>Data retention for at least 5 years §63.10(b)(1)</p> <p>The number of batches per year for each batch process §63.1258(b)(5)(ii)(A)</p> <p>Actual controlled and uncontrolled emissions for each nonstandard batch §63.1259(b)(5)(ii)(E)</p> <p>A record whether each batch was considered a standard batch §63.1258(b)(5)(ii)(F)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM Reports §63.1260(i) y §63.10(d)(5)(ii)</p>

Table 6 –EQUIPMENT LEAKS COMPLIANCE MATRIX [40 CFR §63.1255]

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
Pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, control devices, and closed-vent systems that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year at a source subject to Subpart GGG	LDAR program codified at §63.1255 of the 40 CFR	Leak detection and repair per §63.1255 of the 40 CFR	See §63.1255 of the 40 CFR	See §63.1255 of the 40 CFR	See §63.1255 of the 40 CFR	See §63.1255 of the 40 CFR

Table 7 –WASTEWATER COMPLIANCE MATRIX [40 CFR §63.1256]

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>Wastewater streams at each MACT affected process point of determination (POD) are designated as subject to Subpart GGG §63.1256(a)(1)(ii)</p>	<p>From each POD where BMSMC-Barceloneta has designated a wastewater stream as an affected wastewater stream, such wastewater stream shall be managed in accordance with all applicable emission suppression techniques as described in this permit and §63.1256 paragraphs (b) through (f) and the treatment standards of paragraph (g) §63.1256 (a)(1)(ii)(B)</p> <p>For each wastewater control device, if gaps, cracks, tears, or holes are observed in ductwork, piping or connections to covers and control devices during an inspection a first effort to repair shall be made as soon as practical but not later than 5 calendar days after identification. Repair shall be completed no later than 15 calendar days after identification of the defect unless the delay of repair provisions at §63.125(i) are satisfied §63.1256(h)(4)</p>	<p>Air Stripper</p> <p>Biological Treatment Unit</p> <p>Hard-pipe conveyance system</p>	<p>Open biological treatment units §63.1257(e)(2)(iii)(E)</p> <p>Treatment using a series of treatment devices §63.1257(e)(2)(iii)(A)(5)</p> <p>Compliance with control device provisions §63.1257(e)(3)</p> <p>RCRA units exempt from initial compliance demonstration §63.1257(a)(4)</p>	<p>Monitor biological treatment unit for TSS, BOD and the biomass concentration as described in the Precompliance Report §63.1258(g)(2)</p> <p>Monitor air stripper liquid flow rate as described in the Precompliance Report §63.1258(g)(2)</p> <p>Monitoring for control devices per §63.1258(b)(vii) for the thermal incinerators and §63.1258(b)(ii) for the scrubbers</p> <p>Inspection and monitoring of waste management units and treatment processes §63.1258(g)</p>	<p>SSM Records §63.1259(a)(3)</p> <p>Data retention for at least 5 years §63.10(b)(1)</p> <p>Records of equipment operation including each measurement of a control device operating parameter §63.1259(b)(1)</p> <p>Recordkeeping requirements for sources with continuous monitoring systems §63.10(c)(1) through §63.10(c)(14) §63.1259(a)(4)</p> <p>For each CMS, records documenting the completion of calibration checks and maintenance of continuous monitoring systems §63.1259(b)(3)</p> <p>Descriptions of worst-case operating conditions §63.1258(b)(9)</p> <p>Records of delay of repair §63.1259(f)</p> <p>Records of Inspections §63.1259(i)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM Reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 7 –Wastewater Compliance Matrix [40 CFR §63.1256] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
Maintenance wastewater	BMSMC-Barceloneta shall prepare a description of maintenance procedures for management of wastewater generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance and repair. As described in EUWW1-MACT, this maintenance wastewater plan is part of the SSMP §63.1256(a)(4)(I)	Maintenance wastewater is exempt from all provisions of Subpart GGG and Subpart A except for the need to prepare and follow or update the maintenance wastewater plan §63.1256(a)(4)	NA	Follow SSMP	Maintain a record that the maintenance wastewater plan was followed as part of the SSMP §63.1256(a)(4)(iv), Update the information in the maintenance wastewater plan as needed following each maintenance procedure based on the actions taken and the wastewater generated in the preceding maintenance procedure §63.1256(a)(4)(ii)	Follow SSMP
MACT affected wastewater streams not treated onsite	BMSMC-Barceloneta may elect to transfer MACT affected wastewater streams or a residual from a MACT affected wastewater stream to an offsite treatment operation §63.1256(a)(5)	Prior to shipping the wastewater stream of residual offsite, BMSMC-Barceloneta shall comply with provisions in §63.1256(b) through (f) for each waste management unit that receives or manages affected wastewater §63.1256(a)(5)(i)(A) BMSMC-Barceloneta shall include a notice with each shipment of wastewater or residual that the affected wastewater stream contains organic HAPs to be treated in accordance with Subpart GGG §63.1256(a)(5)(i)(B) BMSMC-Barceloneta shall not transfer the affected wastewater or residual unless the transferee has submitted to the EPA a written certification that the transferee will manage and treat any affected wastewater or residual in accordance with the requirements of §63.1256	NA	NA	Keep a notice of each notification to an offsite treatment operation §63.1259(g)	Periodic report §63.1260(g) Notification of process change §63.1260(h) SSM reports §63.1260(i) and §63.10(d)(5)(ii)

Table 7 –WASTEWATER COMPLIANCE MATRIX [40 CFR §63.1256] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>MACT affected wastewater tanks [§63.1256(b)] except those tanks whose contents are heated, treated by means of an exothermic reaction, or sparged §63.1256(b)(1)</p> <p>MACT affected wastewater tanks whose contents are heated, treated by means of an exothermic reaction, or sparged provided that the total HAP emissions from the tank are no more than 5 percent higher than the emissions would be if the contents of the wastewater tank were not heated, treated by means of an exothermic reaction, or sparged §63.1256(b)(1)</p>	<p>Maintain a fixed roof §63.1256(b)(1)</p>	<p>Fixed Roof</p>	<p>NA</p>	<p>Inspections per §63.1258(h)</p> <p>Inspect each Wastewater tank initially and semiannually thereafter for improper work practices §63.1258(g)</p> <p>Comply with inspection requirements of Table 7 of Subpart GGG</p>	<p>General Recordkeeping Requirements</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM Reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 7 –WASTEWATER COMPLIANCE MATRIX [40 CFR §63.1256] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>* MACT affected wastewater tanks whose contents are heated, treated by means of an exothermic reaction, or sparged and whose total HAP emissions from the tank are more than 5 percent higher than the emissions would be if the contents of the wastewater tank were not heated, treated by means of an exothermic reaction, or sparged §63.1256(b)(1)</p>	<p>Install and operate a fixed roof and closed-vent system that routes the organic HAP vapors to a control device §63.1256(b)(2)(i)</p> <p>The fixed roof and all opening shall be maintained in a closed position at all times that the tank contains affected wastewater or residual removed from affected wastewater except when it is necessary to use the opening for wastewater sampling, removal, and/or for equipment inspection, maintenance or repair §63.1256(b)(3)(B)</p> <p>If an improper work practice is identified, first efforts at repair shall be made within 5 calendar days after identification and repair shall be completed within 45 days after identification §63.1256(b)(9)</p>	<p>Thermal Oxidizer and Scrubber Operating in Series</p> <p>Each system assures compliance by reducing organic HAP emissions by 95 percent §63.1256(h)(2)(i)</p>	<p>Initial Performance Test</p>	<p>Inspections per §63.1258(h)</p> <p>Inspect each Wastewater tank initially and semiannually thereafter for improper work practices §63.1258(g)</p>	<p>General recordkeeping requirements</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM reports §63.1260(i) and §63.10(d)(5)(ii)</p>
<p>Containers that receive, manage or treat MACT affected wastewater or a residual from affected wastewater and that are less than or equal to 0.42 m³ in capacity §63.1256(d)(1)(ii)</p>	<p>Maintain a cover on all containers §63.1256(d)(1)</p> <p>If an improper work practice is identified, first efforts at repair shall be made within 5 calendar days after identification and repair shall be completed within 45 days after identification unless the repair is delayed per §63.1256(i), §63.1256(d)(5)</p>	<p>Meet DOT specifications at 49 CFR 178 §63.1256(d)(1)(ii)(A)</p>	<p>NA</p>	<p>Inspect initially and semiannually thereafter for improper work practices and control equipment failures §63.1258(g)</p> <p>Maintain no leaks per §63.1258(h)</p>	<p>General recordkeeping requirements</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 7– WASTEWATER COMPLIANCE MATRIX [40 CFR §63.1256] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
Containers that receive, manage or treat MACT affected wastewater or a residual from affected wastewater and that are greater than 0.42 m ³ in capacity §63.1256(d)(1)(ii)	<p>Maintain a cover on all containers §63.1256(d)(1)</p> <p>Maintain in accordance with the inspection requirements of §63.1258(h)</p> <p>If an improper work practice is identified, first efforts at repair shall be made within 5 calendar days after identification and repair shall be completed within 45 days after identification unless the repair is delayed per §63.1256(i) §63.1256(d)(5)</p> <p>Use a submerged fill pipe whenever pumping affected wastewater into a container with a capacity greater than 0.42m³ §63.1256(d)(2)(i)(A)</p>	<p>Meet DOT specifications at 49 CFR Part 178 §63.1256(d)(1)(ii)(A)</p>	NA	Inspect initially and semiannually thereafter for improper work practices and control equipment failures §63.1258(g)	General recordkeeping requirements	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 7 –WASTEWATER COMPLIANCE MATRIX [40 CFR §63.1256] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
MACT affected individual drain systems §63.1256(e)	BMSMC-Barceloneta shall operate and maintain a cover on each opening in any drain system and route the vapors through a closed-vent system to a control device §63.1256(e)(1) The cover and all openings shall meet the following requirements: - Maintain in accordance with §63.1258(h) -Maintain in the closed-position except as allowed at 63.1256(e)((1)(B) -The control device shall be at least 95 percent efficient per §63.1256(h) - If an improper work practice is identified, first efforts at repair shall be made within 5 calendar days after identification and repair shall be completed within 45 days after identification unless the repair is delayed per §63.1256(i) §63.1256(e)(3)	Hard-piped system. All emissions routed to the TOU complex	NA	Inspect initially and semiannually thereafter for improper work practices and control equipment failures §63.1258(g) Inspect initially and semiannually thereafter to verify sufficient water is present to properly maintain integrity of water seals. §63.1256(e)(4)	General recordkeeping requirements	Periodic report §63.1260(g) Notification of process change §63.1260(h) SSM reports §63.1260(i) and §63.10(d)(5)(ii)

Table 7 –WASTEWATER COMPLIANCE MATRIX [40 CFR §63.1256] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
<p>“Bio-waste” streams designated as MACT affected including existing and new sources §63.1256(g)(1), §63.1256(g)(2)</p> <p>For the purposes of §63.1256(g)(11), the term “affected wastewater” means all wastewater streams from PMPUs as defined at §63.1251. §63.1256(g)(11)(iii)</p> <p>For combinations of treatment processes, the wastewater stream shall be conveyed by hard piping between the treatment processes §63.1256(g)(7)(i)(A)</p>	<p>95-percent mass reduction option, for biological treatment processes §63.1256(g)(11)</p> <p>All wastewater is hard piped</p>	<p>Air Stripper</p> <p>TOUs</p> <p>Open Biological Treatment Unit</p> <p>Hard piping between the</p> <p>Air Strippers and the biological treatment units.</p>	<p>§63.1257(e)(2)(iii)(E)</p>	<p>Air stripper:</p> <p>Liquid flow rate - ≤ 210 gpm</p> <p>Biological treatment plant:</p> <p>BOD₅ - $\leq 11,470$ lb/day</p> <p>TSS - $\leq 8,621$ lb/day</p> <p>MLVSS - ≥ 2 g/L</p>	<p>Keep record of treatment of the combination of treatment processes §63.1256(g)(7)(iii)(C)</p>	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM Reports §63.1260(i) nad §63.10(d)(5)(ii)</p>

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Table 7 - WASTEWATER COMPLIANCE MATRIX [40 CFR §63.1256] (Continued)

Affected source and emission point	Standard	Compliance options	Performance Testing/ Compliance demonstration	Monitoring	Recordkeeping	Notifications and Reporting
Air Stripper exhaust gases	<p>The control device shall be operating whenever organic HAP emissions are vented from the Air Stripper §63.1256(h)(1)</p> <p>An enclosed combustion device shall reduce the organic HAP emissions vented to the control device by 95% §63.1256(h)(2)(i)(A), or</p> <p>An enclosed combustion device shall provide a minimum residence time of 0.5 seconds at a minimum temperature of 760°C §63.1256(h)(2)(i)(C)</p> <p>Comply with §63.1252(g) to control halogenated vent stream emissions exhausted from a combustion device §63.1256(h)(3)</p>	TOU Complex	§63.1257(e)(3)	<p>Combustion Chamber Temperature 816°C</p> <p>Residence Time – One time in NOCSR</p> <p>Temperature - continuously</p>	General recordkeeping requirements	<p>Periodic report §63.1260(g)</p> <p>Notification of process change §63.1260(h)</p> <p>SSM reports §63.1260(i) and §63.10(d)(5)(ii)</p>

Table 8 - MACT Air Pollution Control Devices and Associated Monitoring Parameters

Control device	Requirement	Upper Test Limit /Operating Condition	Monitoring Parameter
TOUs	98% reduction of HAPs from uncontrolled process vents [40 CFR §63.1254(a)(1) and (a)(3)]	Worst case condition [40 CFR §63.1257(b)(8)(ii)(C)] (Andersen – 918 lb/hr TOC load, Hirt – 1,004 lb/hr TOC load)	Combustion chamber temperature - $\geq 1500^{\circ}$ F daily average [40 CFR 63.1258(b)(3)(ii)(C)]
	20 ppmv TOC [40 CFR §63.1254(c), Alternative Standard]	RATA Testing	Continuous Emissions Monitor - ≤ 20 ppmv daily average [40 CFR §63.1254(c)] Combustion chamber temperature - $\geq 1500^{\circ}$ F daily average [40 CFR §63.1258(b)(3)(ii)(C)] Retention time in combustion chamber - $\geq \frac{3}{4}$ second [40 CFR §63.1258(b)(5)(ii)(A)(2) as demonstrated in Precompliance Report]
	Continuous flow monitoring [40 CFR §63.1258(b)(5)(ii)(A)]	Design Evaluation and Performance test Residence time ≥ 0.75 Second	Recordkeeping
* Post TOU Scrubbers	95% Control for Hydrogen Halides and Halogens or 20 ppmv outlet concentration [40 CFR §63.1252(g)]	Worst case condition [40 CFR §63.1257(b)(8)(ii)(C)] (Andersen – 1,293 lb/hr HCl/Cl ₂ load, Hirt – 3,525 lb/hr HCl/Cl ₂ load)	Once per day pH - ≥ 2.5
			Flow rate into or out of scrubber – Hirt - ≥ 157.5 gpm daily average Andersen - ≥ 705 gpm daily average
* Air Strippers/ Biological Treatment Unit	95% HAP reduction from wastewater system [40 CFR §63.1256(g)(11)]	Performance test [40 CFR §63.1257(e)] Box test (<i>Headwork</i> to the wastewater treatment plant) Sum of HAPs concentrations $\leq 2,264.6$ mg/L Minimum removal efficiency requirement:95%	Air stripper influent flow rate - ≤ 210 gpm Biological treatment plant: BOD ₅ - $\leq 11,470$ lb/day TSS - $\leq 8,621$ lb/day MLVSS - ≥ 2 g/L

Table 9- **Typical Equipment List**

Requirements	Equipment Description
Process Vents	<p>Process vessels, reactors, tanks, centrifuges, stills, process condensers, inline filters, mixers, receivers, dryers, filter presses, sumps, columns, hydrogenators, crystallizers, heat exchanger systems, etc.</p> <p>(See Appendix V for a complete list of existing equipment)</p>
Storage Tanks	<p>Fixed roof metallic tanks, fixed roof fiberglass tank, internal floating roof tanks, external floating roof tanks, and etc.</p> <p>(See Appendix V for a complete list of existing equipment)</p>
Equipment Leaks	<p>Pumps, agitators, compressors, open-ended valves and lines, valves, connectors, sampling connection systems, pressure relief devices, and etc.</p>
Wastewater	<p>Air strippers, steam strippers, storage tanks, neutralization tanks, biological treatment units, liquid waste incinerators, surface impoundments, containers, oil and water separators, conveyance system, drain systems, and etc.</p> <p>(See Appendix V for a complete list of existing equipment)</p>
Heat Exchange Systems	Heat exchangers and chillers
Condensers	<p>Condensers as a control device for Rule 419 compliance</p> <p>(See Appendix V for a complete list of existing equipment)</p>

15. The addition of new equipment without the necessity to reopen the permit will be allowed if:
 - i. the emissions are routed to the existing control device used to comply with the pharmaceutical MACT and BMSMC-Barceloneta demonstrates that the capacity of the control device is not exceeded.
 - ii. for the new equipment or modified existing equipment, a new control device is not necessary.
 - iii. The new equipment is subject to applicable requirements within the permit and can be determined using the compliance matrix.
 - iv. It complies with all applicable provisions of the RCAP.

E. Additional Recordkeeping & Reporting Requirements

Under this section are summarized some of the applicable requirements for recordkeeping and reporting required by this permit, as well as additional requirements.

1. BMSMC-Barceloneta shall prepare and keep a monthly record with the following information about the batches manufactured at the facility:
 - a. name of the process
 - b. batch size and amount of batches manufactured
 - c. identification and amount of atmospheric pollutants emitted, controlled and uncontrolled per batch for each process.
2. BMSMC-Barceloneta shall keep records demonstrating the annual production and the use of raw material in the facility, available for inspection by EQB's technical personnel.
3. Semi-annual reports [Rule 603(A)(5)(i) of the RCAP]
 - * a. BMSMC-Barceloneta shall submit semi-annual reports about any required monitoring beginning with the six-month period after the effective date of the permit and for every six-month period thereafter. Semi-annual reports must be submitted within 90 days after the end of each six-month period.
 - * b. All instances of deviations from permit requirements must be clearly identified in the semi-annual reports required by this permit. All the required reports must be certified by the Responsible Official as established in paragraph (c)(3) of Rule 602 of the RCAP.

Section VI - Insignificant Emission units

The following list of insignificant activities was provided by the permittee for a better understanding of its operations. Since there is no requirement to update this list, activities may have changed since this filing.

Emission Unit ID	Description (Criteria for exemption)
Water treatment equipment	Appendix B.3.ii.L of the RCAP (VOC concentration less than 3,500 ppb)
Storage tank for No. 6 Fuel Oil with a capacity of 29,600 gal	Appendix B.3.ii.P of the RCAP. (Emits less than 1 ton per year of VOC)
Storage tank for diesel fuel for the two 2000 kW emergency generators with a capacity of 10,000 gallons	Appendix B.3.ii.P of the RCAP. (Emissions less than 1 ton per year of VOC)
Storage tank for HCl of 10,000 gallons (30-D-202)	Appendix B.3.ii.P of the RCAP. (Emissions less than 1 ton per year of VOC)
Tank 30-D-112 with conservation vent	Appendix B.3.ii.Nof the RCAP (Capacity less than 10,000 gallons)
250 kW (340 hp) All Power Generator (45-K-102)	Appendix B.3.ii.(O) (operates less than 500 horas)
350 kW (470 hp) ONAN Generator (45-K-102 ^a)	Appendix B.3.ii.(O) (operates less than 500 horas)
1541 kW (2066 hp) ONAN Generator (10-EE-107)	Appendix B.3.ii.(O) (operates less than 500 horas)
1273 kW (1707 hp)ONAN Generator (10-EE-108)	Appendix B.3.ii.(O) (operates less than 500 horas)
500 kW (670 hp) Generator (10-EE-109)	Appendix B.3.ii.(O) (operates less than 500 horas)
200 kW (2682 hp) ONAN Generator (10-EE-110)	Appendix B.3.ii.(O) (operates less than 500 horas)
2000 kW (2682 hp) ONAN Generator (10-EE-111)	Appendix B.3.ii.(O) (operates less than 500 horas)
350 kW (470 hp) ONAN Generator (10-TZ-740)	Appendix B.3.ii.(O) (operates less than 500 horas)
70 kW (95 hp) ONAN Generator (10-TZ-005)	Appendix B.3.ii.(O) (operates less than 500 horas)
* * Fire Pump 10-G-001, 125 hp	Appendix B.3.vii. of the RCAP
Fire Pump 10-G-068, 300 hp	Appendix B.3.vii. of the RCAP
Research trials that will last for 30 days or less, prior a 15 days notice and which will result in VOC emissions of less than 3 pounds per hour or 15 pounds per day.	Appendix B.3.ix of the RCAP.
Pilot Plants and laboratories which engage in research development and quality control activities.	Appendix B.3.ii.(m) of the RCAP
Emergency Response Training Activities	Appendix B.3.xvi of the RCAP

Emission Unit ID	Description (Criteria for exemption)
Laboratories used solely for the purpose of quality control or environmental compliance testing that are associated with manufacturing, or production.	Appendix B.3.xxi. of the RCAP
Non-routine clean out of tanks and equipment for the purposes of worker entry or in preparation for maintenance or decommissioning (except those equipments subject to the 40 CFR Part 63 Subpart GGG).	Appendix B.3.xxvi. of the RCAP
Sampling connections and systems used exclusively to withdraw materials for testing and analysis, including air contaminant detectors and vent lines.	Appendix B.3.xxvii of the RCAP
Pump Seals (except those covered by the 40 CFR Part 63, Subparts H, I and GGG).	Appendix B.3.xxxxix of the RCAP
* Equipment used for Ceph Manufacturing: Double Core Blender, Mixer Pony, 3 Fitzmill, micropulverizer, 3 tablet machines (1 Kilian, 2 Stock), HK Encapsulator, 2 oral suspension lines, Sample weighing and volume of primary material in pharmacy area, Oscillator, micronizer, compactor (Internal Dust Collector), V-Blender (Internal Dust Collector). Control Equipment used in Ceph Manufacturing: Dust Collector 20-R-452 (DC 1001), Dust Collector 20-R-448 y Dust Collector 20-R-449	Appendix B.2 of the RCAP

Section VII - Permit Shield

As specified under Rule 603(d) of the RCAP, compliance with the conditions of the permit shall be deemed compliance with any applicable requirement as of the date of permit issuance, but only if such applicable requirement is included and specifically identified in the permit. Moreover, the permittee shall be deemed in compliance with any other requirement specifically identified in the permit as “Non Applicable”. However, according to the 40 CFR §63. 6(e)(3)(ix) none of the procedures specified by the startup, shutdown and malfunction plan for an affected source will be considered within the permit shield of Section 504(f) of the Act. All changes that BMSMC-Barceloneta performs that are only recorded in the OSIL and that are not expressly mentioned in the permit are not either within the permit shield cover.

A. Non-Applicable Requirements

Non-Applicable Requirements		
State	Federal	Reason
Hazardous air pollutants limitations		See Section VII, Part (B) of the Permit
Rule 405(c) of the RCAP		See Section VII, Part (B) of the Permit
	National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (40 CFR Part 63 Subpart FFFF)	See Section VII, Part (B) of the Permit
	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters (40 CFR Part 63 Subpart DDDDD)	See Section VII, Part (B) of the Permit

B. Reasons for Non Applicability

Coding for Non-Applicability Determination	
Code	Reason
Hazardous Air Pollutant Limits	No applicable requirements
Rule 405(c) of the RCAP	The incinerator was removed permanently from service, as per the company's communication on June 4, 2004
40 CFR Part 63 Subpart FFFF	Does not apply at the time of the permit issuance because the miscellaneous chemical manufacturing units from BSMC-Barceloneta are not considered chemical manufacturing process units, as defined in Subpart F of the 40 CFR Part 63. Besides, they do not have process vents subject to subpart F.
40 CFR Part 63 Subpart DDDDD	It is not applicable at the time of the permit issuance because it does not comply with the applicable requirements of section 63.7505 of the 40 CFR. It only requires initial notification, according to section 63.7506(b) of the 40 CFR.

Section VIII - Permit Approval

By virtue of the authority conferred upon the Environmental Quality Board by the Public Policy Environmental Act, Law No. 416, September 22, 2004, as amended, and after verifying the administrative record and compliance with the Uniform Administrative Procedure Act, Law No. 170, August 12, 1988, as amended, the Clean Air Act, the Public Policy Environmental Act and the Regulation for the Control of Atmospheric Pollution, the Environmental Quality Board approves this permit subject to all the terms and conditions herein established.

In San Juan, Puerto Rico, today August 23 , 2007.

ENVIRONMENTAL QUALITY BOARD

/s/
Julio I. Rodríguez Colón
Alternate Member

/s/
Carlos W. López Freytes, Esq.
President

APPENDIXES

Appendix I - Definitions and Abbreviations

A. Definitions:

1. Act -Clean Air Act, as amended, 42 U.S.7401, et seq.
- * 2. Calendar Day: The 24 hour period that starts on midnight each day. For purposes of the 40 CFR Part 63 Subpart GGG, the day starts on 2:00 pm and ends on 1:59 p.m. of the following day, as approved in the precompliance report. For purposes of the Pharmaceutical MACT, the day definition may change, as approved by the EPA or EQB.
- * 3. Calendar Week – 7 consecutive day period, starting on Sunday, and ending on Saturday
4. Responsible Officer -See definition for Responsible Officer in the Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board (1995)
5. Regulation - Regulation for the Control of Atmospheric Pollution for the Environmental Quality Board.
6. Permittee - Person and/or entity to which the Puerto Rico Environmental Quality Board has emitted an Operating Permit for an Emission Source under Title V.
7. Title V - Title V of the Clean Air Act (42 U.S.C. 7661).

B. Abbreviations

1. BOD – Biochemical Oxygen Demand
2. Btu - British Thermal Unit
3. CCCD – Centralized Combustion Chamber Device
4. CERCLA- Comprehensive Environmental Emergency Compensation and Liability Act
5. CFR - Code of Federal Regulations
6. cGMP –Current Good Manufacturing Practices

7. CMS - Continuous Monitoring Systems
8. CO - Carbon Monoxide
9. COD – Chemical Oxygen Demand
10. EPA – Environmental Quality Board
11. EQB – Puerto Rico Environmental Quality Board
12. HAP – Hazardous Atmospheric Pollutant
13. HCl – Hydrochloric Acid
14. LDAR - Leak detection and Repair
15. MACT – Maximum Achievable Control Technologies
16. MeCL₂ – Methylene Chloride
17. MMBtu – Millions British Thermal Units
18. MVLSS – Mixed Liquours Volatile Suspended Solids
19. NAAQS - National Ambient Air Quality Standards
20. NESHAP - National Emission Standards for Hazardous Air Pollutants
21. NOC – Notification of Compliance
22. NO_x - Nitrogen Oxides
23. NSPS - New Source Performance Standards
24. OSHA – Occupational Safety and Health Administration
25. OSIL – Onsite Implementation Log
26. PBAML – Process Based Annual Mass Limit
27. PM₁₀ - Particulate Matter whose particulate diameter has a size of aerodynamic mass equal or less than ten microns.
28. PMPU – Pharmaceutical Manufacturing Process Unit
29. POD – Point of Determination
30. ppm – parts per million
31. ppmv - parts per million per volume
32. ppmw – parts per million per weight

33. PR -SIP – Puerto Rico State Implementation Plan
34. PRASA – Puerto Rico Aqueduct and Sewer Authority
35. PSD- Prevention of Significant Deterioration
36. RATA – Relative accuracy test audit
37. RCAP - Regulations for the Control of Atmospheric Pollution
38. RCRA - Resource Recovery & Conservation Act
39. SIC - Standard Industrial Classification
40. SO₂ - Sulfur Dioxide
41. SOP – Standard Operating Procedure
42. SSM - Startup, shutdown & malfunction
43. SSMP – Startup, Shutdown & Malfunction plan
44. TOC – Total Organic Carbon
45. TPY- Tons per year
46. VOC - Volatile Organic Compound

* **Appendix II - List of Hazardous Air Pollutants emitted in BSMC- Barceloneta²⁰**

Acetonitrile
Antimony (Compounds)
Arsenic
Benzene
Beryllium
Cadmium (Compounds)
Chromium (Compounds)
Cobalt (Compounds)
* Dimethylformamide
Dioxin
* Ethylene Oxide
* Ethylbenzene
Formaldehyde
Hydrochloric Acid
Lead (Compounds)
Manganese (Compounds)
Mercury
Methanol
Methyl Isobutyl Ketone (MIBK)
Methylene Chloride
Methyl-tert-butyl-ether (MTBE)
Nickel (Compounds)
Phosphorus
Polycyclic Organic Matter (POM)
Selenium (Compounds)
Toluene
Triethylamine
Xilene

* ²⁰ BSMC-Barceloneta may emit other contaminants from combustion such as 1,3-butadiene, acetaldehyde, acrolein, ethylbenzene, naftalene, Polycyclic aromatic hydrocarbons, propylene oxide, among others, as well as metals, as presented in the AP-42 for the type of fuel used.

Appendix III - Calculation Methodology

BMSMC-Barceloneta will calculate the annual emissions of the facility using the calculation methodology included in this Appendix.

1. Process vents

- * BMSMC-Barceloneta will calculate the emissions using the equations of the Control Techniques Guidelines included in the CAIMS system (as well as any other method approved by the Pharmaceutical Production MACT) and the removal efficiencies of the control systems, determined by stack tests approved by the Board or guarantees provided by the manufacturer. BMSMC-Barceloneta shall obtain all the variables that are necessary to carry out the calculations, from the process descriptions, documents and batch manufacturing procedures. BMSMC-Barceloneta shall keep records of these calculations for each step of the manufacturing process. The variables shall include, but will not be limited to the amount of raw material loaded, process temperature and purge time. The VOC or HAP emissions that result from routine cleaning, rinsings, washings or heating of equipment in batch manufacturing operations must be included in this emissions calculations independently of the product that will be manufactured in the next batch.

Unless a new stack test is carried out where new values are determined, BMSMC-Barceloneta will use the following control efficiency to determine controlled emissions:

- i. 98% destruction efficiency for VOC and HAPs for the thermal oxidizers.
 - ii. 95% removal for SO₂ and hydrogen halides and halogens, in the scrubbers.
 - iii. If actual monitoring data indicate that the control equipment is outside of the range assumed in the controlled emissions calculations, the emissions will be recalculated using actual monitoring data.
- * The process parameters, control device parameters, controlled and uncontrolled emissions shall be recorded for each activity of emission. The annual emissions profile for each batch will be multiplied by the amount of batch manufactured during the calendar year for which is representative to obtain the emissions from the process vents.

2. Storage tanks

- a. BMSMC-Barceloneta will calculate the uncontrolled emissions from each tank using the equations in Chapter 7.1 of the AP-42. BMSMC-Barceloneta will use the monthly data and the characteristics of the liquid stored for each tank to

perform the calculations. All relevant information like diameter, type of tank, operating volume, shell color, if the tank operates in a vacuum or under pressure, etc. will be used to perform the emission calculations. BMSMC-Barceloneta will keep records with all the information used to calculate uncontrolled tank emissions.

- b. When the uncontrolled emissions are routed to a control device, BMSMC-Barceloneta will use the procedures described in the previous process vents section to calculate controlled emissions in the storage tanks. If no control device is used, the uncontrolled emissions will be considered actual emissions.
- c. To obtain emissions in pounds per tank per month, the uncontrolled and controlled emissions will be added in all storage tanks. To obtain the storage tanks monthly emissions, the VOC and HAP emissions per month in each tank will be added.
- d. Meteorological data from Puerto Rico will be used in the tank's emission calculations.

3. Equipment leaks

- * a. BMSMC-Barceloneta will calculate the emissions from equipment leaks using the CAIMS program, which estimates the emissions using the average component count and the percent leak rate data obtained from field studies for the leak detection and repair program and the emission factors for SOCOMI sources published by EPA in 1993 (*Protocol for Equipment Leak Emission Estimates*; EPA-453/R-93-026, June 1993).
- b. For each process step, the following procedure was established in the database to estimate equipment leaks:
 - i. Assign average component counts and a percent leak rate to each process equipment used in the step.
 - ii. Multiply the equipment cycle time with the potential batches per year to determine the total annual time that components are exposed to chemical solvents.
 - iii. Use the emission factors from the screen value-range method published in the SOCOMI fugitive emission estimate protocol (EPA-453/R-93-026, Table 2-5) to estimate equipment fugitives.
- c. The equipment leak emissions for each component will be obtained by multiplying the emission rate obtained from the following equation by the

exposure time of the equipment (which is obtained by multiplying the cycle time of the equipment and the batches manufactured).

Total emission rate per type of component

$$Se = GEF \times N_{ge} + LEF \times N_{le}$$

where:

Se = Total emission rate for a component type, kg/hr.

GEF = Applicable emission factor for sources with screening values greater than or equal to 10,000 ppmv, kg/hr/source.

N_{ge} = Component count (for specific component type) for sources with screening values greater than or equal to 10,000 ppmv

LEF = Applicable emission factor for sources with screening values less than 10,000 ppmv, kg/hr/source.

N_{le} = Component count (for specific component type) for sources with screening values less than 10,000 ppmv.

- d. The following table presents the emission factors applicable to BMSMC-Barceloneta from Table 2-5 of the document EPA-453/R-93-026. These factors will be used to calculate the emission rate in the equation that was included in the previous condition:

Type of equipment	Service	≥10,000 ppmv Emission factors (kg/hr/sources) ^b	<10,000 ppmv Emission factors (kg/hr/sources) ^b
Valves	Light Liquid	0.0892	0.000165
Pump seals and agitators	Light Liquid	0.243	0.00187
Pressure relief valves	Gas	1.691	0.0447
Connectors	All	0.113	0.0000810

b These emission factors are for total organic compound emission rates

- e. BMSMC-Barceloneta will keep the batch cycles and the amount of components for each process in the OSIL

4. Combustion Sources

- a. BMSMC-Barceloneta will use the AP-42 emission factors to calculate the emissions from the use of fuel, unless a stack test is carried out and emission factors obtained from the stack test are used.

5. Other areas

- *
 - a. BMSMC-Barceloneta will determine and record the atmospheric pollutants emissions in areas not classified above in an annual basis. Will keep in their records all the information used to perform the calculations.
 - b. The emission calculations will include the specific reference of the emission factor used. The necessary data to reproduce the emission calculations, such as fuel consumption, batches manufactured, among others, will be included.
 - c. The HAPs will be detailed in the emissions calculated as part of the annual emissions calculations report.
-

* **Appendix IV – List of Products and Intermediates Permitted at the time of the permit application²¹**

BMS-182940-01	DEHYDRATED CEFEPIME
SQ-28,449	Sterile l-arginine
SQ-28,796	Monohydrated cefadroxyl
SQ-28,796-02	Pentahydrated ceftazidime
SQ-28,796-02 Enzymatic	Sterile cephradine
SQ-28,646	Sterile sodium carbonate
SQ-28,555	Tazicef
SQ-28,303	Sterile sodiome cephalirin
SQ-28,355	Sterile sodium cefazolin
SQ-27,616	PM-240
SQ-32,034	Triamcinolone Acetonide (TACA)
Cinchonidine SQ-28,796	Triamcinolone (TAC)
Cinchonidine SQ-28,555	Aztreonam
Cinchonidine in metanol	Triamcinolone Diacetate
DDI Primary	Triamcinolone Hexacetone
DDI Bulk	L-Arginine (new for 2005)
DDI Salt-free	Triamcinolone (TAC), (new for 2005)
DDI starting from d4A	Halcinonide crude & recrystalized)
Buspar	F3 Acetonide
Buspar II	F3 Acetonated-21-Mesilate
Buspar IV	BMS 232387-01
Buspar HCl	BMS 233471-02
Sacharinate	BMS 265688-02
Nefazodone MJ-13701	BMS 281643-01
Nefazodone crude	BMS 189921-01
Nefazodone Rx	BMS226630-02
Nefazodone HCl	BMS 207147-01
Acetyl- d4T	BMS-195319-02
D4T-NMPO	BMS-196278-01
D-4T	BMS-196375-01 MESYLATION)
D4T-I (AAM)	BMS-196337-01
D4T-II (Bd4T)	BMS-187644-01
BMS-233101-01	BMS-180194 (SQ-35,302)
BMS-232632-05	BMS-180194 (SQ-35,508)
BMS-207873-01	BMS-180048-01
BMS-196099-02	BMS-180048-02 (FUMARATE)
BMS-195829-01	BMS-180048-07
BMS-186716-01	BMS-187700-01
l-ZWIT	BMS-180194
EFAVIRENZ	BMS-192525-01
Irbesartan Photobromination	PIVOTAL
Nefazodone MJ-13701	LACTONE-A
Nefazodone HCl crudo	COUPLED AMIDE BMS-182471
Nefazodone HCl FP	IFETROBAN CHIRAL-IMIDE
AMPHO I	GEPIRONE BASE
AMPHO II	GEPIRONE BMY-22026
Mycostatin	GEPIRONE HCL

* ²¹ This list is provided for informational purposes only and does not establish applicable requirements.

Appendix V - Process Equipments and Control Devices

A. Emission unit EUVO1

1. NON-LACTAM

Type	ID	Control device
Resin Column	70-D-3010	Thermal oxidizer and post TO scrubber
Precoat Tank	70-D-285	None
50% caustic soda tanks	70-D-250	None
	70-D-210	None
Drum Heater	70-DH-501	Thermal oxidizer and post TO scrubber
Tank	70-D-660	None, spill control only
Wastewater column	70-C-600, 70-D-607, 70-D-608	Thermal oxidizer and post TO scrubber
Tanks	70-C-310	Thermal oxidizer and post TO scrubber
	70-C-320	
	70-C-330	
	70-C-340	
	70-C-380	
	70-C-350	
	70-C-390	
	70-C-410	
	70-C-420	
	70-C-540	
	70-C-545	
	70-C-610	
	70-C-620	
	70-D-220	
	70-D-225	
	70-D-230	
	70-D-240	
	70-D-113 ^c	
70-D-3005		
70-D-3015		
Nutsche filters	70-YG-338	Thermal oxidizer and post TO scrubber
	70-YG-339	
	70-YG-340	
	70-YG-444	
	70-YG-454	
	70-YG-460	
	70-YG-461	

Type	ID	Control device
Nutsche filters (<i>cont.</i>)	70-YG-462	Thermal oxidizer and post TO scrubber
	70-YG-463	
Tray Dryers	70-YK-399	Thermal oxidizer and post TO scrubber
	70-YK-400	Thermal oxidizer and post TO scrubber
Hydrogenators	70-C-360	Condensers 70-E-364
	70-C-370	Condensers 70-E-374
Durco Filters	70-YG-570	None (Closed cycle)
	70-YG-579	
	70-YG-576	
Centrifuges	70-F-440	Thermal oxidizer and post TO scrubber
	70-F-450	
	70-F-460	
Niagara filters	70-YG-365	None (Closed cycle)
	70-YG-366	
	70-YG-375	
Tumble Dryers	70-YC-470	Thermal oxidizer and post TO scrubber
	70-YC-480	
	70-YC-490	
Tanks	70-D-200	Thermal oxidizer and post TO scrubber
	70-D-205	
	70-D-100	
	70-D-105	
	70-D-110 ^c	
	70-D-115	
	70-D-120 ^c	
	70-D-125	
	70-D-130	
	70-D-135	
	70-D-140	
	70-D-245	
	70-D-255	
	70-D-270	
	70-D-280	
	70-D-215	
	70-D-260	
	70-D-265	
	70-HT-340	
	70-HT-390	
70-HT-420		
70-HT-620		
Receivers	70-D-310	Thermal oxidizer and post TO scrubber
	70-D-311	
	70-D-330	
	70-D-350	

Type	ID	Control device
Receivers (<i>cont.</i>)	70-D-351	Thermal oxidizer and post TO scrubber
	70-D-540	
	70-D-545	
	70-D-630	
	70-D-640	

^c The wastewater tanks are also part of the emission unit EUWW1-MACT.

2. BRISTOL DE PUERTO RICO

Type	ID	Control Device
Tanks	40-D-101	Thermal oxidizer and post TO scrubber
	40-D-111	
	40-D-126	
	40-D-104	
	40-D-105	
	40-D-123 ^d	
	40-C-127	
	40-D-102	
	40-D-103	
	40-D-128	
	40-D-131	
	40-D-133	
	Crystallizers	
40-D-132		
Tank	40-D-100	None
Dryers	40-YK-101 & 3 vacuum pumps (40-H-107, 108, 109)	Thermal oxidizer and post TO scrubber
	40-YK-102	
Nutsche filters	40-YG-117	Thermal oxidizer and post TO scrubber
	40-YG-118	
	40-YG-119	
	40-YG-120	
	40-YG-121	
Niagara filters	40-YG-104	None (Closed cycle)
	40-YG-119	
	40-YG-123	
	40-YG-124	
	40-YG-129	
	40-YG-130	
	40-YG-131	

Type	ID	Control Device
Tank	T-100	None, spill control only
Mixer	40-YC-100	None
Bottle Filler (Sanacy)		None (enclosed)

^d The wastewater tanks are also part of the emission unit EUWW1-MACT.

3. BRISTOL ALPHA

Type	ID	Control device
Pen Manufacturing	10-D-121 ^e	Thermal oxidizer and post TO scrubber
	30 ft Gemco Mixer and Lodige Mixer/Dryer & Solutions tank	

^e The wastewater tanks are also part of the emission unit EUWW1-MACT.

4. BRISCHEM

Type	ID	Control Device
Tanks	30-C-310	Thermal oxidizer and post TO scrubber
	30-C-320	
	30-C-330	
	30-S-257	
	30-C-340	
	30-S-277	
	30-C-350	
	30-D-310	
	30-D-320	
	30-D-330	
	30-D-340	
	30-D-350	
	30-D-283	
	30-D-332	
	30-D-237	
	30-D-238	
	30-D-230	
	30-D-352	
30-C-004		
30-C-360		

Type	ID	Control Device
Tanks	30-C-006 and Precoat Tank	Thermal oxidizer and post TO scrubber
	30-D-006	
	30-D-018	
	30-D-030	
	30-D-038	
	30-D-066	
	30-D-075	
	30-D-127 ^f	
	30-C-014	
	30-C-015	
	30-C-025	
	30-C-024	
	30-C-028	
	30-C-008	
	30-C-027	
	30-C-038	
	30-C-056	
30-C-057		
30-C-058		
Fluid Bed Dryer	30-YX-003	N/A
Heinkle Centrifuges	30-YH-005	Thermal oxidizer and post TO scrubber
	30-YH-006	
Tanks	T-180 & T-181 (receivers for 30-YH-006)	Thermal oxidizer and post TO scrubber
	T-380 & T-381 (receivers for 30-YH-005)	
	30-D-57 & 30-D-56 (receivers for 30-YC-003 & 30-YC-004)	
	30-D-007 (receivers for 30-YC-007)	
Vacuum Dryers	30-YC-003 (Gemco)	Thermal oxidizer and post TO scrubber
	30-YC-004 (Gemco)	
Dryer	30-YC-007	Thermal oxidizer and post TO scrubber
Tanks	30-C-620	Thermal oxidizer and post TO scrubber
	30-C-630	
	30-D-650	
	30-D-655	
	30-D-660	
Centrifuge	30-YH-710	Thermal oxidizer and post TO scrubber
Dryer	30-YC-610	Thermal oxidizer and post TO scrubber
Receiver	For Condenser 30-E-611	Thermal oxidizer and post TO scrubber

Type	ID	Control Device
Niagara filters	30-YG-014	None (Closed cycle)
	30-YG-124	
	30-YG-022	
	30-YG-020	
	30-YG-09B	
	30-YG-010	
Tanks	30-D-003	None
	30-D-136	None
	30-D-016	None
	30-D-026 (Precoat)	None
Tank	T-200	None, spill control only
Pulverizer	20-YM-102 (Micronizer)	None
Caustic Soda Tanks	30-D-001	None
	30-D-064	None
Emergency Vent Catch Tank	30-D-510	None (Note: Normally Empty)
Tank Farm	30-C-051	None
	30-C-128	None
	30-C-235 y 30-C-236	None (Closed System)
	30-D-036	None
	30-D-103	None
	30-D-104	None
	30-D-105	Thermal oxidizer and post TO scrubber
	30-D-106	Thermal oxidizer and post TO scrubber
	30-D-108	None
	30-D-109	None
	30-D-110	None
	30-D-111 ^f	Thermal oxidizer and post TO scrubber
	30-D-112	None
	30-D-113	None
	30-D-114	Thermal oxidizer and post TO scrubber
	30-D-115	None
	30-D-116	None
	30-D-117	None
	30-D-118	None
	30-D-142 (previously 30-D-119)	Thermal oxidizer and post TO scrubber
	30-D-143 (previously 30-D-120)	
	30-D-144 (previously 30-D-121)	
30-D-126 A/B ^f		
30-D-128		

Type	ID	Control Device
Tank Farm (cont.)	30-D-130	Thermal oxidizer and post TO scrubber
	30-D-134	None
	30-D-135	Thermal oxidizer and post TO scrubber
	30-D-211	
	30-D-234	
	30-D-235	
	30-D-237	
	30-D-238	
	30-D-239	
30-D-240		

^f The wastewater tanks are also part of the emission unit EUWW1-MACT.

5. Other Areas

Type	Id	Control Device
Distillation Column	30-C-102	Thermal oxidizer and post TO scrubber
Brischem Wastewater Strippers	30-D-300	
	30-D-301	
	30-C-300	
	30-C-301	
Solvent Recovery Columns	30-C-103 (includes a decanter and a batch pot)	
	30-C-104	
	30-C-108 (previously 30-C-128)	

6. Pilot Plant

Type	ID	Nominal Volume (gallons)	Control Device	Emission point ID
Tanks	80-C-101	100	Thermal oxidizer and post TO scrubber	EP01/EP02
	80-C-102	250		
	80-C-201	300		
	80-C-202	500		
	80-D-101	100		
	80-D-201	200		
	80-D-402	100		
	80-D-501	12		
	80-D-603	15		
	80-D-602	12		
	80-D-801	1,000		
	80-D-802	1,000		
	80-D-803	1,000		
80-D-804	1,500			

Type	ID	Nominal Volume (gallons)	Control Device	Emission point ID
Tank	80-D-702	1,400	Thermal oxidizer and post TO scrubber	EP01/EP02
Centrifuge	80-YH-501	----		
Dryer	80-YC-601	3 cubic feet		
Plate Filter	80-YC-601	3 cubic feet		
Portable Tank	80-D-301	100		
Drum Container System	80-XD-301	---		
Powder Transfer Systems	80-XB-501	---		
	80-XB-601	---		

C. Emission unit EUTF1

Type	ID	Nominal Volume (gallons)	Control Device	Emission point ID
Storage Tanks	30-D-103	10,000	None ^h	EP-T01
	30-D-105	10,000	Thermal oxidizer and post TO scrubber	EP01/EP02
	30-D-106	10,000		EP01/EP02
	30-D-108	20,000	None ^h	EP-T02
	30-D-109A	20,000	None ^h	EP-T03
	30-D-111 ^g	20,000	Thermal oxidizer and post TO scrubber	EP01/EP02
	30-D-112	6,000	None ^h	
	30-D-113	11,800	None ^h	EP01/EP02
	30-D-114	20,000	Thermal oxidizer and post TO scrubber	EP01/EP02
	30-D-115	20,000	None ^h	EP-T06
	30-D-116	10,700	None ^h	EP-T07
	30-D-117	20,000	None ^h	EP-T08
	30-D-118	20,000	None ^h	EP-T09
	30-D-142 (previously 30-D-119)	10,000	Thermal oxidizer and post TO scrubber	EP01/EP02
	30-D-143 (previously 30-D-120)	10,000	Thermal oxidizer and post TO scrubber	EP01/EP02
	30-D-144 (previously 30-D-121)	10,000	Thermal oxidizer and post TO scrubber	EP01/EP02

Type	ID	Nominal Volume (gallons)	Control Device	Emission point ID
Storage Tanks (<i>cont.</i>)	30-D-126 A/B ^g	30,000 (two compartments 15,000 gallons each)	Thermal oxidizer and post TO scrubber	EP01/EP02
	30-D-145 (previously 30-D-201)	10,000		EP01/EP02
	30-D-146 (previously 30-D-203)	20,000		EP01/EP02
	30-D-204	20,000		EP01/EP02
	30-D-205	20,000		EP01/EP02
	30-D-206	20,000		EP01/EP02
	30-D-231	20,000		EP01/EP02
	30-D-232	20,000		EP01/EP02
	30-D-233	10,000		EP01/EP02
	30-D-202	10,000		Scrubber 30-SC-202
	10-D-018	29,320	None	EP-T17
	20-D-022A	3,000	None ^h	EP-T15
	70-D-100	20,000	Thermal oxidizer and post TO scrubber	EP01/EP02
	70-D-105	20,000		EP01/EP02
	70-D-110 ^g	20,000		EP01/EP02
	70-D-115	20,000		EP01/EP02
	70-D-120 ^g	20,000		EP01/EP02
	70-D-125	20,000		EP01/EP02
	70-D-130	19,500		EP01/EP02
	70-D-135	19,500		EP01/EP02
	70-D-140	19,500		EP01/EP02
	Fuel tank for the emergency generators	10,000		None
	Fuel tank for EUB01	20,000	None	EP-T14

^g The wastewater tanks are also part of the emission unit EUWW1-MACT.

^h Tanks are equipped with conservation vent

D. Emission unit EUTF1-NSPS

Type	ID	Nominal Volume (gallons)	Control device	Emission point ID
Storage Tanks	30-D-110	20,000	None ^j	EP-T04
	30-D-114	20,000	Thermal oxidizer and post TO scrubber	EP01/EP02
	30-D-117	20,000	None ^j	EP-T08
	30-D-118	20,000	None ^j	EP-T09
	70-D-100	20,000	Thermal oxidizer and post TO scrubber	EP01/EP02
	70-D-105	20,000		EP01/EP02
	70-D-110 ⁱ	20,000		EP01/EP02
	70-D-115	20,000		EP01/EP02
	70-D-120 ⁱ	20,000		EP01/EP02
	70-D-125	20,000		EP01/EP02
	30-D-146 (previously 30-D-203)	20,000		EP01/EP02
	Fuel tank for EUB01	20,000	None	EP-T14

ⁱ The wastewater tanks are also part of the emission unit EUWW1-MACT.

^j The tanks are equipped with a conservation vent.

E. Emission unit EUVO1-MACT

1. NON-LACTAM

Type	ID	Control Device
Resin Column	70-D-3010	Thermal oxidizer and post TO scrubber
Precoat Tank	70-D-285	None
50 % Caustic soda tank 50%	70-D-250	None
	70-D-210	None
Drum Heater	70-DH-501	Thermal oxidizer and post TO scrubber
Tank	70-D-660	None, Spill control only
Wastewater Column	70-C-600, 70-D-607, 70-D-608	Thermal oxidizer and post TO scrubber

Type	ID	Control Device
Tanks	70-C-310	Thermal oxidizer and post TO scrubber
	70-C-320	
	70-C-330	
	70-C-340	
	70-C-380	
	70-C-350	
	70-C-390	
	70-C-410	
	70-C-420	
	70-C-540	
	70-C-545	
	70-C-610	
	70-C-620	
	70-D-220	
	70-D-225	
	70-D-230	
	70-D-240	
	70-D-113 ^k	
	70-D-3005	
70-D-3015		
Nutsche filters	70-YG-338	Thermal oxidizer and post TO scrubber
	70-YG-339	
	70-YG-340	
	70-YG-444	
	70-YG-454	
	70-YG-460	
	70-YG-461	
	70-YG-462	
70-YG-463		
Tray Dryers	70-YK-399	Thermal oxidizer and post TO scrubber
	70-YK-400	
Hydrogenators	70-C-360	Condensers 70-E-364
	70-C-370	Condensers 70-E-374
Durco Filters	70-YG-570	None (Closed cycle)
	70-YG-579	
	70-YG-576	
Centrifuges	70-F-440	Thermal oxidizer and post TO scrubber
	70-F-450	
	70-F-460	
Niagara filters	70-YG-365	None (Closed cycle)
	70-YG-366	
	70-YG-375	

Type	ID	Control Device
Tumble Dryers	70-YC-470	Thermal oxidizer and post TO scrubber
	70-YC-480	
	70-YC-490	
Tanks	70-D-200	Thermal oxidizer and post TO scrubber
	70-D-205	
	70-D-100	
	70-D-105	
	70-D-110 ^k	
	70-D-115	
	70-D-120 ^k	
	70-D-125	
	70-D-130	
	70-D-135	
	70-D-140	
	70-D-245	
	70-D-255	
	70-D-270	
	70-D-280	
	70-D-215	
	70-D-260	
	70-D-265	
	70-HT-340	
	70-HT-390	
	70-HT-420	
70-HT-620		
Receivers	70-D-310	Thermal oxidizer and post TO scrubber
	70-D-311	
	70-D-330	
	70-D-350	
	70-D-351	
	70-D-540	
	70-D-545	
	70-D-630	
	70-D-640	

^k The wastewater tanks are also part of the emission unit EUWW1-MACT.

2. BRISTOL DE PUERTO RICO

Type	ID	Control Device
Tanks	40-D-101	Thermal oxidizer and post TO scrubber
	40-D-111	
	40-D-126	
	40-D-104	
Tanks	40-D-105	Thermal oxidizer and post TO scrubber
	40-D-123 ¹	
	40-C-127	
	40-D-102	
	40-D-103	
	40-D-128	
	40-D-131	
	40-D-133	
Crystallizers	40-D-106	Thermal oxidizer and post TO scrubber
	40-D-132	
Tank	40-D-100	None
Dryers	40-YK-101 & 3 vacuum pumps (40-H-107, 108, 109)	Thermal oxidizer and post TO scrubber
	40-YK-102	
Nutsche filters	40-YG-117	Thermal oxidizer and post TO scrubber
	40-YG-118	
	40-YG-119	
	40-YG-120	
	40-YG-121	
Niagara filters	40-YG-104	Closed cycle
	40-YG-119	
	40-YG-123	
	40-YG-124	
	40-YG-129	
	40-YG-130	
	40-YG-131	
Tank	T-100	None, Spill control only
Mixer	40-YC-100	None
Bottle Filler (<i>Sanacy</i>)		None (enclosed)

¹The wastewater tanks are also part of the emission unit EUWW1-MACT.

3. BRISTOL ALPHA

Type	ID	Control Device
Pen Manufacturing	20-D-121 ^m	Thermal oxidizer and post TO scrubber
	30 ft Gemco Mixer and Lodge mixer/dryer and solutions tank	

^m The wastewater tanks are also part of the emission unit EUWW1-MACT.

4. BRISCHEM

Type	Id	Control Device
Tanks	30-C-310	Thermal oxidizer and post TO scrubber
	30-C-320	
	30-C-330	
	30-S-257	
	30-C-340	
	30-S-277	
	30-C-350	
	30-D-310	
	30-D-320	
	30-D-330	
	30-D-340	
	30-D-350	
	30-D-283	
	30-D-332	
	30-D-237	
	30-D-238	
	30-D-230	
	30-D-352	
	30-C-004	
	30-C-360	
	30-C-006 and Precoat Tank	
	30-D-006	
	30-D-018	
	30-D-030	
	30-D-038	
	30-D-066	
	30-D-075	
30-D-127 ⁿ		
30-C-014		

Type	Id	Control Device
Tanks (cont.)	30-C-015	Thermal oxidizer and post TO scrubber
	30-C-025	
	30-C-024	
	30-C-028	
	30-C-008	
	30-C-027	
	30-C-038	
	30-C-056	
	30-C-057	
	30-C-058	
Fluid Bed Dryer	30-YX-003	N/A
Heinkle Centrifuges	30-YH-005	Thermal oxidizer and post TO scrubber
	30-YH-006	
Tanks	T-180 & T-181 (receivers for 30-YH-006)	Thermal oxidizer and post TO scrubber
	T-380 & T-381 (receivers for 30-YH-005)	
	30-D-57 & 30-D-56 (receivers for 30-YC-003 & 30-YC-004)	
	30-D-007 (receiver for 30-YC-007)	
Vacuum Dryer	30-YC-003 (Gemco)	Thermal oxidizer and post TO scrubber
	30-YC-004 (Gemco)	
Dryer	30-YC-007	Thermal oxidizer and post TO scrubber
Tanks	30-C-620	Thermal oxidizer and post TO scrubber
	30-C-630	
	30-D-650	
	30-D-655	
	30-D-660	
Centrifuge	30-YH-710	Thermal oxidizer and post TO scrubber
Dryer	30-YC-610	Thermal oxidizer and post TO scrubber
Receiver	Para condenser 30-E-611	Thermal oxidizer and post TO scrubber
Niagara filters	30-YG-014	None (Closed cycle)
	30-YG-124	
	30-YG-022	
	30-YG-020	
	30-YG-09B	
	30-YG-010	
Tanks	30-D-003	N/A
	30-D-136	N/A
	30-D-016	None
	30-D-026 (Precoat)	None
Tank	T-200	None, spill control only
Pulverizer	20-YM-102 (Micronizer)	N/A
Caustic Soda Tanks	30-D-001	None
	30-D-064	N/A
Emergency Vent Catch Tank	30-D-510	N/A (Note: Normally empty)

Type	Id	Control Device
Tank Farm	30-C-128	Thermal oxidizer and post TO scrubber
	30-D-105	
	30-D-106	
	30-D-111 ⁿ	
	30-D-113	None
	30-D-114	Thermal oxidizer and post TO scrubber
	30-D-115	None (Possible future use if connected to TO)
	30-D-116	None (Possible future use if connected to TO)
	30-D-117	None (Possible future use if connected to TO)
	30-D-118	None (Possible future use if connected to TO)
	30-D-142 (previously 30-D-119)	Thermal oxidizer and post TO scrubber
	30-D-143 (previously 30-D-120)	
	30-D-144 (previously 30-D-121)	
	30-D-126 A/B ⁿ	
	30-D-128	
	30-D-130	
	30-D-135	
	30-D-211	
	30-D-234	
	30-D-235	
30-D-237		
30-D-238		
30-D-239		
30-D-240		

ⁿ The wastewater tanks are also part of the emission unit EUWW1-MACT.

5. Other Areas

Type	ID	Control device
Distillation Column	30-C-102	Thermal oxidizer and post TO scrubber
Brischem wastewater stripper	30-D-300 30-D-301 30-C-300 30-C-301	Thermal oxidizer and post TO scrubber
Solvent Recovery Columns	30-C-103 (includes decanter and batch pot) 30-C-104 30-C-108 (previously 30-C-128)	Thermal oxidizer and post TO scrubber

6. Pilot Plant

Type	ID	Nominal Volume (gallons)	Control device	Emission point ID
Tanks	80-C-101	100	Thermal oxidizer and post TO scrubber	EP01/EP02
	80-C-102	250		
	80-C-201	300		
	80-C-202	500		
	80-D-101	100		
	80-D-201	200		
	80-D-402	100		
	80-D-501	12		
	80-D-603	15		
	80-D-602	12		
	80-D-801	1,000		
	80-D-802	1,000		
	80-D-803	1,000		
	80-D-804	1,500		
80-D-702	1,400			
Centrifuge	80-YH-501	----		
Dryer	80-YC-601	3 cubic feet		
Plate Filter	80-YC-601	3 cubic feet		
Portable Tank	80-D-301	100		
Drum containment system	80-XD-301	---		
Powder transfer systems	80-XB-501	---		
	80-XB-601	---		

F. Emission unit EUTF1-MACT

Type	Id	Nominal Volume (gallons)	Control device	Emission point ID
Storage tanks	30-D-105	10,000	Thermal oxidizer and post TO scrubber	EP01/EP02
	30-D-111	20,000		
	30-D-142 (previously 30-D-119)	10,000		
	30-D-143 (previously 30-D-120)	10,000		
	30-D-144 (previously 30-D-121)	10,000		

Type	Id	Nominal Volume (gallons)	Control device	Emission point ID
Storage tanks	30-D-126 A/B °	30,000 (two compartments 15,000 gallons each)	Thermal oxidizer and post TO scrubber	EP01/EP02
	30-D-201	10,000		
	30-D-203	20,000		
	30-D-204	20,000		
	30-D-205	20,000		
	30-D-206	20,000		
	30-D-231	20,000		
	30-D-232	20,000		
	30-D-233	10,000		
	30-D-106	10,000		
	30-D-114	20,000		
	70-D-100	20,000		
	70-D-105	20,000		
	70-D-110 °	20,000		
	70-D-115	10,000		
	70-D-120 °	20,000		
	70-D-125	20,000		
70-D-130	19,500			
70-D-135	19,500			
70-D-140	19,500			

° The wastewater tanks are also part of the emission unit EUWW1-MACT.

G. Emission unit EUWW1-MACT

TYPE	ID	CONTROL DEVICE
Wastewater tanks	30-D-111	Thermal oxidizer and post TO scrubber
	70-D-110	
	70-D-120	
Wastewater separation tanks	70-D-113	Thermal oxidizer and post TO scrubber
	30-D-126A	
	30-D-126B	
	30-D-127	
	20-D-121	
40-D-123		
Two air strippers	10-TW-101 10-TW-102	Thermal oxidizer and post TO scrubber
2 strong wastewater tanks (20,000 gal. each)	10-D-101 10-D-102	Thermal oxidizer and post TO scrubber

TYPE	ID	CONTROL DEVICE
4 equalization tanks (200,000 gallons each)	10-D-113 10-D-114 10-D-115 (utility wastewater) 10-D-116 (utility wastewater)	Thermal oxidizer and post TO scrubber (10-D-113 & 114 continuously, other two optionally)
2 Sequencing Batch Reactors (680,000 gallons each)	10-D-103 10-D-104	Odor control scrubber 10-R-108 or 10-R-109
1 post-SBR retention tank (150,000 gal)	10-D-117	Odor control scrubber 10-R-108 or 10-R-109
Sludge holding tank (100,000 gal)	10-D-118	Odor control scrubber 10-R-108 or 10-R-109
Belt filter press sump	10-D-119	Odor control scrubber 10-R-108 or 10-R-109
Belt filter press	10-YG-101	Odor control scrubber 10-R-108 or 10-R-109

H. Location of bypass stacks

Location	Description
Non-Lactam	Exit and entrance of the building scrubber
Brischem	Exit and entrance of the building scrubber
Non-Lactam tank farm	Header from the tank farm
TOs	Main header to the TOs

I. Control devices for EUVO1-MACT-ALT2

Control device	Type of control	Emission point
CDSC101	Scrubber	EP32
CDSC102	Scrubber	EP33
CDSC103	Scrubber	EP34
CD22	Condenser	EP22
CD23	Condenser	EP23

Appendix VI -Combustion equipment with a heat input capacity exceeding 8 MM Btu/hr

Source	Capacity MM Btu/hr	% S Allowed
Thermal Oxidizer (Hirt)	26.25	2.5
Thermal Oxidizer (Andersen)	42	2.5
Boiler	30.24	0.25

Appendix VII - Control Devices Description

Emission point	Control Device ID	Controlled Pollutant	Control Device				Basis of Estimate ^q
			Type ^p	Manufacturer/ Model	% efficiency		
					Design	Actual	
EP01	CD01	VOCs, HAPs	99a	Hirt Combustion	98	99.8	A
EP01	CD01S	HCl, SO ₂	13a	---	95	97.2 -HCl	A
EP02	CD02	VOCs, HAPs	99a	Andersen	98	99.9	A
EP02	CD02S	HCl, SO ₂	13a	---	95	99.4 -HCl	A
EP12	CD12	PM, PM ₁₀	10a	Torit 130-24-15	99	99	E - Mfg
EP13	CD13	PM, PM ₁₀	10a	Torit 130-24-15	99	99	E - Mfg
EP14	CD14	PM, PM ₁₀	10a	Hoffman 38404-A1 (20-R-287, 20-R-288, 20-R-289, 20-R-290)	99	99	E - Mfg
EP21	CD21	PM, PM ₁₀	10a	Torit TD-486	99	99	E - Mfg
EP22	CD22	VOCs, HAPs	15	C-360 Vent Condenser	Variable ^f	Variable ^f	D
EP23	CD23	VOCs, HAPs	15	C-370 Vent Condenser	Variable ^f	Variable ^f	D

^p Control device codes

10a Filter (*baghouse*)
 13a Packed column absorber (scrubber)
 15 Condenser
 99a Thermal oxidizer

^q Code - Emissions Estimations Method

A. Stack test
 B. Material balance
 C. Emission factor
 D. Engineering estimate

N/A- Not Available E-Mfg - Manufacturer's design specification

^fVariable: Control efficiency depends on the process step and the solvent.

Emission point	Control Device ID	Controlled Pollutant	Control Device				Basis of estimate ^q
			Type ^p	Manufacturer / Model	% Efficiency		
					Design	Actual	
EP01/EP02	CDAS101	VOCs, HAPs	99b	QED	^s	^s	A
EP01/EP02	CDAS102	VOCs, HAPs	99b	QED	^s	^s	A
Fugitive	CDBIO	VOCs, HAPs	99c	Sequencing Batch Reactor	95	95 ^t	A
EP01/EP02	CDSS101	VOCs, HAPs	99d		NA	NA	
EP32	CDSC101	VOCs	13a	Andersen 2000	^u	^u	
EP33	CDSC102	VOCs	13a	Andersen 2000	^u	^u	
EP34	CDSC103	VOCs	13a	Andersen 2000	^u	^u	

^p Control Device Code

- 10a Filter (*baghouse*)
- 13a Packed column absorber (scrubber)
- 15 Condenser
- 99a Thermal oxidizer
- 99b Air stripper
- 99c Biological Treatment Unit
- 99d Steam stripper

^q Codes – Emission estimation methodology

- A. Stack test
- B. Material balance
- C. Emission factor
- D. Engineering estimate

N/A- Not Available E-Mfg - Manufacturer's design specification

^s The air strippers, in combination with the biological treatment reach a global efficiency of 95%

^t Global efficiency for the wastewater treatment system, consisting of air strippers that vent to the TOU in conjunction with the biological treatment plant.

^u Scrubbers used to comply with Rule 108 and 419 of the RCAP.