



COMMONWEALTH OF PUERTO RICO
Office of the Governor
Environmental Quality Board

Air Quality Area

December 12, 2008

FEDERICO PADRÓN GARAY
AUTHORIZED REPRESENTATIVE
FJR ACQUISITION CORP
PO BOX 11865
SAN JUAN PR 00922

Dear mister Padrón:

Re: ADMINISTRATIVE AMENDMENT
TITLE V PERMIT
FJR ACQUISITION CORP.
PFE-TV-2834-47-0297-0003

The Environmental Quality Board includes the revision to the permit mentioned above. The revision is authorized under an administrative amendment to transfer the responsibility and the operational control over the emission units authorized under the permit in reference from Schering-Plough Products.L.L.C. to FJR Acquisition Corp.

FJR Acquisition purchased Schering-Plough Products,L.L.C. This is a company that manufactures pharmaceutical products, steroids and final product. With this purpose it operates two-product plants (Steroids and Netilmicin), one pharmaceutical plant, three boilers, and one tank farm.

The revision of this permit is being made pursuant to Rule 606(a)(2) of the Regulations for the Control of Atmospheric Pollution. The effective date of this administrative amendment for the units under this permit will be December 12, 2008. This permit will expire on December 12, 2010.

ADMINISTRATIVE AMENDMENT
FJR ACQUISITION CORP.
PFE-TV-2834-47-0297-0003
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By virtue of the authority conferred upon the Environmental Quality Board by the Environmental Public Policy 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 Environmental Public Policy Act and the Regulation for the Control of Atmospheric Pollution, the Environmental Quality Board approves the permit included subject to all the terms and conditions herein established.

In San Juan, Puerto Rico, on December 12, 2008.

/s/
Eng. Noelia Y. Rosa Jaime
Vice President

/s/
Eng. Angel O. Berríos Silvestre
Associate Member

/s/
Esq. Javier J. Rúa
President

**COMMONWEALTH OF PUERTO RICO
OFFICE OF THE GOVERNOR**

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



Permit Number:	TV-2834-47-0297-0003
Operating Permit application received	February 3, 1997
Effective Date	December 12, 2005¹
Administrative Amendment Date:	
Responsibility Transfer:	December 12, 2008
Expiration Date:	December 12, 2010

In accordance with the provisions of Part VI of the Regulation for the Control of Atmospheric Pollution (RCAP) and the provisions of 40 CFR part 70,

FJR Acquisition Corp.

hereinafter referred to **FJR Acquisition Corp.** as or the permittee, is authorized to operate a stationary source of air contaminants limited to the units and conditions described in this permit. Until such time as this permit expires or is modified or revoked, the Permittee is allowed to discharge air pollutants from those activities directly related to or associated with the sources, in accordance with the limitations and conditions of this permit.

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

1. The conditions marked with asterisk were reviewed or added by means of a reconsideration process. These conditions will be effective from May 8, 2007.

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Section I- General Information

A. Facility Information

Company Name: **FJR Acquisition Corp.**

Postal Address: **P.O. Box 11865**

City: **San Juan** State: **P.R.** Zip Code: **00922**

Facility Name: **FJR Aquisition Corp.**

Facility Location: **Carr 686 Km 0.5 Manatí, P.R 00674**

Responsible Official: **Federico Padrón Garay** Phone: **(787) 854-2700**
Authorized Representative

Technical Contact: **Federico Padrón Garay** Phone: **(787) 884-8520**
Fax **(787) 474-0042**

Primary SIC Code: **2834**

B. Process Description

FJR Aquisition Corp. is a corporation engaged in the manufacture of pharmaceutical products, steroids and final product. For this purpose **FJR Aquisition Corp.** operates two product plants (Steroids and Netilmicin) one pharmaceutical plant, three boilers and one tank field.

The contaminants emitted by **FJR Aquisition Corp.** are due primarily to the chemical operations performed in the manufacture of products. These emissions are associated to the productions steps, the operation of the boilers and the storage tanks, among others.

Section II -Emission Units Description

- * The emission units, and their corresponding control equipment, regulated under this permit are the following:

Emission Unit	Equipment Configuration Description	Control Equipment	Emission Point
EU-MFG	<p style="text-align: center;">Chemical Synthesis and Others</p> <p>These emission units covers two manufacturing plants (steroids and antibiotics), chemical used solvents storage tank used in the pharmaceutical production, solvents recovering equipments in used water, wastewater treatment systems, waste solvents storage tank resulting from pharmaceutical production (regulated under RCRA). The manufacturing plants include the operation equipments used in batch operations: reactors, feeding tank, condensers, precipitators, recollection tank, centrifuges, level tank, phase separators, and dryers, phase organic level tanks, aqueous phase tanks, distilled receiving tanks, filters, vacuum pumps, and silica column. The equipment connected to this control equipment is mentioned in Appendix IV “Control Unit – Carbon Adsorption System”.</p>	CD-641-0000	EP-641-0000
U-Bays	<p style="text-align: center;">(Scrubber DOH-H)</p> <p>This unit consists in manufacturing equipments used in batch operations to produce pharmaceutical chemicals. These equipments include a reactor, a precipitator, recollection tanks, a centrifuge, a phase separator and filters (among others). The equipment connected to this control equipment is mentioned in the Appendix IV “Control Unit – Scrubber 631-3401”.</p>	CD-631-3401	EP-631-3401
	<p style="text-align: center;">(Scrubber DOH)</p> <p>This unit consists in manufacturing equipments used in batch operations to produce pharmaceutical chemicals. The equipment connected to this control equipment is mentioned in Appendix IV Control Unit – Scrubber 631-3402”.</p>	CD-631-3402	EP-631-3402

Emission Unit	Equipment Configuration Description	Control Equipment	Emission Point
U-Bays	(Scrubber DOH-AB) or (CBA) The units consist in used manufacturing equipment per series for chemical pharmaceutical substance producer. The equipment included was a reactor, precipitator, recollection tank, centrifuges, phases separator and filters. The equipment connected to this control equipment is mentioned in Appendix IV Control Unit – Scrubber 631-3401 or Carbon Adsorption System 641-0000”.	CD-631-3291 or CD-641-0000	EP-631-3291 or EP-641-0000
EU-Fugitives	The fugitive emissions of atmospheric pollutants are the result from the process components or solvents distribution, like: valves, flanges, agitators, connectors, and pumps. These equipments are located in the Steroids Extraction Area, the tank farm, fermentation plant, utilities area, Steroids, and Netilmicine plants. The fugitive’s emissions may be discharged to the atmosphere.	Fugitives	None
EU-Gas Evolution	This unit consists in two reactors (reactor 531-3302, and 531-3303). Each one has a capacity of 350 gallons. The hydrogen gas is produced and emitted to the atmosphere. These are emitted to the atmosphere when Sodium Borohydride is added. There exist escapes of methylene chloride and Ethylene Glycol Dimethyl Ether.	Fugitives	None
EU-Boilers	Includes three identical boilers with an energy inlet of 35 MMBtu/hr. The boilers consumes fuel oil No. 6 at a rate of 270 gallons per hour each and a maximum sulfur content of 2.5% by weight. These emission units area located in Utilities, Area 343.	EP-343-5101 EP-343-5102 EP-343-5103	None
EU-PM	The unit connected to this control equipment is a shedder crusher to crush cardboard, plastic, paper, and other materials.	EP-263-0004	CD-263-0401

Section III – General Conditions

- 1. Sanctions and Penalties: FJR Aquisition Corp.** must comply with all the terms, conditions, requirements, limitations and restriction established in this permit. Any violation to the terms of this permit is subject to administrative, civil or criminal measures, as established in Section 16 of the Environmental Public Policy Act (Law No. 416 of September 22, 2004, as amended).

2. **Right of Entry:** In keeping with the provisions of Rules 103 and 603(c)(2) of the RCAP, the permittee must allow the entry of EQB representatives in the permittee's facilities, upon presentation of credentials, to carry out the following activities:
 - a) Enter or go in the premises where an emission source is located, or where air emissions related activities are conducted, or where records are kept under permit conditions, under the RCAP, or under the federal Clean Air Act;
 - b) To have access to, and copy, at reasonable times, any records that must be kept under the conditions of the permit, under RCAP, or under the federal 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 and fuels;
 - d) As authorized by the Clean Air Act and the RCAP, to sample or monitor, 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 to Rule 103(D) of the RCAP (i.e., semiannual monitoring reports and annual compliance certification), must be submitted together with a sworn statement or affidavit by the Responsible Official or a duly authorized representative. The sworn statement must attest to the truth, correctness and accuracy of said records and reports.
4. **Data Availability:** As specified under Rule 104 of the RCAP, all emission data obtained by or submitted to the EQB, including data reported pursuant to Rule 103 of RCAP, as well as that obtained in any other way, shall be available for public inspection and shall also be made available to the public in any additional manner that the EQB may deem appropriate.
5. **Emergency Plan:** As specified under Rule 107 of the RCAP, the permittee shall have available an Emergency Plan which must be consistent with adequate safety practices and provide for the reduction or retention of the emissions from the facility during periods classified by the EQB 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 inspection by any EQB authorized representative 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. Said equipment or measures shall be installed, maintained, and operated according to those conditions imposed by this Title V Permit, within the manufacturer specified operating limitations.

- (B) The collected material from air pollution control equipment shall be disposed in accordance with applicable rules and regulations. The removal, handling, transportation, storage, treatment or disposal will be done so as not to produce environmental degradation, and in accordance with applicable rules and regulations.
- (C) The EQB 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 that may be up to equal the capacity of the primary control equipment. Furthermore, the EQB may require that said additional air pollution control equipment be operated continuously and conjunctionally with the commonly required air pollution control equipment.
- (D) All air pollution control equipment shall be operated at all times while the emission source being controlled is in operation.
- (E) In the case of a shutdown of air pollution control equipment for the scheduled maintenance, the intent to shutdown such equipment shall be reported to the Board at least three days prior to the planned shutdown. Said prior notice shall include, but will 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 air pollutants likely to be emitted during the shutdown period.
 - (4) Special measures such as the use of off-shift labor and additional 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, including the associated air pollution control equipment, in a manner consistent with the design specifications of the original manufacturer and in compliance with applicable rules and regulations and permit conditions.

(G) The permittee shall maintain copies of all the monthly calibrations and inspections of the control equipments such as baghouses and scrubbers. The permittee shall record in a logbook all the periods when the control equipment is in shutdown and the process continues its operation. All the records shall be available to the EQB personnel upon request.

- * **7. Compliance Certification:** According to Rule 602(c)(2)(ix)(C) of the RCAP, **FJR Aquisition Corp.** shall submit every year a Compliance Certification. This certification shall be submitted to both the Board² and the EPA³ no later than 90 days after the anniversary of the granted permit. In case that 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.
- 8. Regulatory Compliance:** As specified under Rule 115 of the RCAP, any violation to the RCAP, or to any other applicable rule or regulation, may be grounds for the EQB to suspend, modify, or revoke any relevant permit, approval, variance or other authorization issued by the EQB.
- 9. Location Approval:** As specified under Rule 201 of the RCAP, nothing in this permit may be interpreted as authorizing the location or construction of a major stationary source, or the major modification of a major stationary source, without obtaining first an authorization from the EQB 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 the required permit under Rule 203 of the RCAP.
- 10. Open Burning:** As specified under Rule 402 of the RCAP, the permittee may not cause or permit the open burning of refuse in the premises of the facility, except as provided by subparagraph (E) of said rule that authorizes the permittee to conduct trainings or investigations on fire control techniques. The permittee shall keep records of the fire control activities related to investigation or training. These records will be available upon request.
- 11. Particulate Fugitive Emissions:** As specified under Rule 404 of the RCAP the permittee may not cause or permit:
- a) the handling, transportation or storage of any material in a building and its structures or that a road is used, built, altered, repaired or demolished without first taking due precautions to prevent that particulate matter gains access to the air.

² The certification to the EQB shall be mailed to: Manager, Air Quality Area, P.O. Box 11488, Santurce, PR 00910.

³ The certification to the EPA shall be mailed to: CEPD Director, US EPA-Region II, Centro Europa Building 1492, Ponce de Leon Ave. Stop 22, Santurce, PR 00909.

- 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 may 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 as follows: if objectionable or disagreeable odors (according to the definition in Rule 420(B)(1) of the RCAP) are considered detectable beyond the premises designated for industrial purposes, the permittee shall investigate and take measures to minimize or eliminate the objectionable or disagreeable odors. [This condition is enforceable only by the State].

13. Permit Renewal Applications: As established under Rule 602 (a)(1)(iv) of the RCAP, the permittee's applications for permit renewal shall be submitted to the EQB at least 12 months prior to the date of permit expiration. A responsible official shall certify all required applications in keeping with paragraph (c)(3) of Rule 602.

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 will have a fixed term of 5 years. The expiration date will be automatically extended until the EQB approves or denies a renewal application only in those cases in which the permittee submits a complete renewal application at least 12 months before the expiration date. [Rules 603 (a)(2), 605 (c)(2), 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 beyond the original permit duration, until the time the permit is renewed, only 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 will remain in effect until the time it is revoked by a court of law with jurisdiction in the matter.

15. Recordkeeping Requirement: 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 application.

16. Reporting Requirement: 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 EQB or any other 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 Emergencies:** As specified under Rule 603(a)(5)(ii)(a) of the RCAP, any deviation resulting from an upset (such as sudden malfunction or break-down) or emergency conditions, as defined in Rule 603(e) of the RCAP, shall be reported within 2 working days from the moment in which the emission limits are exceeded due to the emergency, if **FJR Aquisition Corp.** wishes to assert the affirmative defense authorized under Rule 603(e) of the RCAP. Such notification may be used to assert an affirmative defense under Rule 603(e) of the RCAP. If the permittee 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.
- *18. Deviation Reporting (Hazardous Atmospheric Pollutants):** The source must cease operations immediately or must act as specified in its Emergency Reaction Plan (established in Rule 107 (C)), when said plan has demonstrated that there will be no significant impact in areas that are not those that have been designated for industrial purposes (This condition is enforceable only by the State). Pursuant to Rule 603(a)(5)(ii)(b) of the RCAP, the permittee shall notify the EQB within 24 hours after a deviation that results in the release of emissions of hazardous atmospheric pollutants for more than an hour in excess of the applicable limit. For the discharge of any regulated atmospheric 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. **FJR Aquisition Corp.** shall also submit to the EQB, within 7 days of the deviation, a detailed written report, which will include probable causes, time and duration of the deviation, remedial action taken, and steps that 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, recordkeeping and reporting requirements.
- 20. Permit Noncompliance:** As established under Rule 603(a)(7)(i) of the RCAP, the permittee shall comply with all conditions of this permit. Permit noncompliance constitutes a violation of the RCAP and will be grounds for taking enforcement action, impose sanctions, revoke, terminate, modify, and/or 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, the permittee may not assert as a defense 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 create or convey any property rights of any sort, nor does it grant any exclusive right.

24. Obligation to Furnish Information: As specified under Rule 603(a)(7)(v) of the RCAP, the permittee must furnish to the EQB, within a reasonable time, any information that the EQB may request 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 EQB copies of records required to be kept under the permit.

25. Changes in Operating Scenarios: As specified under Rule 603(a)(10) of the RCAP, the permittee shall record in a logbook, contemporaneously with making a change from one operating scenario to another, the scenario under which it is operating. This logbook must be kept at the facility at all times.

26. Prohibition on Default Issuance: As specified under Rule 605(d) of the RCAP, it may never be construed that a permit has been issued by default as a result of the EQB's failure to take final action on a permit application within 18 months after the application completion date. The EQB's failure to issue a final permit within 18 months shall 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 may not be amended nor modified unless the permittee complies with the requirements for administrative permit amendments and permit modifications as described in the RCAP.

28. Permit Reopenings: As specified under Rule 608(a)(1) of the RCAP, this permit shall be reopened and revised under the any of 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. Said reopening must 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 EQB or EPA determine 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 EQB 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, **FJR Aquisition Corp.** 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 accepting and agreeing to comply with all the conditions of this permit.

30.Renovation/Demolition Work: **FJR Aquisition Corp.** shall comply with the applicable provisions set forth in 40 CFR section 61.145 and section 61.150, and Rule 422 of the RCAP when conducting any renovation or demolition activities with asbestos containing materials at the facility.

31. Risk Management Plan: If during the effectiveness of this permit **FJR Aquisition Corp.** remains subject to 40 CFR part 68, the permittee shall submit a compliance certification with the requirements of part 68 as part of the annual compliance certification, including the recordkeeping and the Risk Management Plan. **FJR Aquisition Corp.** shall comply with the requirements of the general obligation under section 112(r)(1) of the Act as follows:

- a. **FJR Aquisition Corp.** shall design, maintain and operate a safe facility.
- b. **FJR Aquisition Corp.** has the general obligation of identifying hazards which may result from accidental releases of any controlled substance under section 112(r) of the Clean Air Act or any other extremely hazardous substance in a process, using generally accepted assessment techniques. **FJR Aquisition Corp.** shall also take the appropriate steps to prevent releases and minimize the consequences of accidental releases, as required in section 112(r)(1) of the Clean Air Act and Rule 107(D) of the RCAP.
- * c. **FJR Aquisition Corp.** shall submit an annual certification on or before April 1st of each year assuring the adequate implementation of the Risk Management Plan according to Rule 604(e)(1)(ii) of the RCAP and 40 CFR section 68.215(a)(2)(ii).
- d. **FJR Aquisition Corp.** shall revise and update its Risk Management Plan submitted under 40 CFR section 68.150 as follows:
 - 1) Within five years of its initial submission or the most recent update required in paragraphs (d)(2) to (d)(7) of this permit condition, as established in part 68, subpart G, section 68.190, whichever occurs later.
 - 2) No later than three years after a new regulated substance is included for the first time in the list of substances regulated by the Environmental Protection Agency.

- 3) No later than the date on which a new regulated substance is present for the first time in an already authorized process and it exceeds the threshold amount.
 - 4) No later than the date on which a new regulated substance is present for the first time and it exceeds the threshold amount in a new process.
 - 5) Within six months of a change that requires a revision of the Process Hazard Analysis or a hazard revision.
 - 6) Within six month after a change that requires a revision of the Off-site Consequence Analysis as provided in section 68.36.
 - 7) Within six months after a change that alters the Program level that applied to any covered process.
- e. In the event that this facility was no longer covered by part 68, subpart G, **FJR Aquisition Corp.** shall submit a revised record to the EPA within six months indicating that the stationary sources is no longer affected by the same.

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, the permittee shall provide maintenance, service or repair services according to the practices, personnel certification requirements, disposal 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 section 82.166.
- b) Service on Motor Vehicles: If the permittee performs a service on motor vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee shall comply with all the applicable requirements as specified in 40 CFR part 82, subpart B, Servicing of Motor Vehicle Air Conditioners. The term MVAC as used in subpart B does not include the airtight 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 section 82.106.
- b) The placement of the required warning statement must comply with the requirements pursuant to section 82.108.
- c) The form of the label bearing the required warning statement must comply with the requirements pursuant to section 82.110.
- d) No person may modify, remove, or interfere with the required warning statement except as described in section 82.112.

34. Emergency Electric Generators

- a) The operation of each power plant listed as insignificant activity is limited to 500 hours per year.
- b) The permittee shall keep a record of hours of operation and fuel used by each power plant. This record shall be available for Board and EPA personnel inspection.

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, no later than the 1st day of April of each year, the actual or permissible emissions calculations for the previous natural year. The emissions calculations must be submitted on the forms prepared by the Board for this purpose and the responsible official shall certify all the information submitted as true, correct and representative of the permitted activity. On or before June 30 of each year, the permittee shall make the applicable payment for the emissions occurred during the previous calendar year.

37. Annual fee: FJR Aquisition Corp. shall submit an annual payment based on the actual emissions of regulated pollutants at a rate of \$37.00 per ton, unless the Board establishes another fee pursuant to the provisions of Rule 610(b)(2)(iv) of the RCAP. This payment must be made on or before June 30 of each year.

38. Roof Surface Coating: As specified in Rule 424 of the RCAP, **FJR Aquisition Corp.** shall not cause or permit roof surface coating by applying hot tar or any other coating material containing organic compounds without the EQB's previous authorization. The use of used oil or hazardous waste for surface coating is strictly prohibited. This rule will not apply to

activities where tar or sealing material is applied without heat and such material is asbestos-free. [This is a state-only requirement]

39. **Storage Tanks: FJR Aquisition Corp.** shall keep the records of the distilled fuel (diesel) storage tanks listed as insignificant activities showing each tank's capacities as specified under 40 CFR section 60.116b. Said documentation shall be available for Board technical personnel review at all times and kept in the facility for the life of each tank.
40. **New or Amended Regulations:** In the event that a federal or state regulation is promulgated or amended and the facility is affected by it, the permittee shall comply with the requirements of the new or amended regulation after it is in effect.
- * 41. **Source Modifications without a permit revision:** According to Rule 607 of the RCAP, **FJR Aquisition Corp.** 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 **FJR Aquisition Corp.**, 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 **FJR Aquisition Corp.** 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.
 - (i) Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition.
 - (ii) 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.
 - (iii) The change shall not qualify- for the shield under paragraph (d) of Rule 603.
 - (iv) 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.
- *42. (a) FJR Aquisition Corp.** 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 41.(a)(1)(i) refers to changes covered under condition 41.(a)(1).
- (d) Any emission trading as provided in condition 41.(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 **FJR Aquisition Corp.** 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.

***Section IV - Potential Emissions and Emission Limits for Hazardous Atmospheric Pollutants (HAP's)**

- A. The emissions described in the following table represent the facility's potential emissions at the time of the permit application 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 **FJR Aquisition Corp.**, although emissions calculations based on the facility's allowable emissions will be accepted. If **FJR Aquisition Corp.** 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 **FJR Aquisition Corp.** applies for a modification, administrative change, or minor modification to its Title V permit, 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.

Pollutant	Potential Emissions (tons/year)
PM ₁₀	55
SO ₂	930
NO _x	175
CO	24
VOC	28

B. Emission limits for Hazardous Atmospheric Pollutants.

1. According to the PFE-47-0802-1267-I-II-C permit, **FJR Aquisition Corp.** shall not exceed the emission limits described below in any period of 12 consecutives months. The emissions in any 12-month consecutive period shall be calculated by adding the emissions of each unit to the total emissions from the units during the previous 11 months.

Hazardous Atmospheric Pollutants (HAPs)	Emission Limits (tons /year)
HAPs Combination	23.4
Chloroform	9.2
Methylene Chloride	9.2
Methanol	6.0
Acetaldehyde	1.0
Dimetilformamide	1.0
Hidrogen Chloride	1.0
Trietilamine	1.0

2. **FJR Aquisition Corp.** shall calculate the hazardous atmospheric pollutant (HAPs) emissions and volatile organics compound emissions (VOC) from each emission unit (including the insignificants activities) in a rotative basis of 12-months to show compliance with the emission limits authorized in the PFE-47-0802-1267-I-II-C. The HAP's emissions from sources that required construction permit under Rule 203 of the RCAP shall be account to measure

compliance with the HAP's limit.

Section V- Permit Conditions

1. EC-001, EC-002, EC-004-012, EC-014-036, EC-038-054, EC-056-074, EC 076-077, EC 080-094, EC-096-098, EC-102-107 and EC 109-111

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recording Requirements	Reporting Frequency
VOC emission limit	VOC	3	Pounds per hour	N/A	N/A	N/A	N/A
		15	Pounds per day				

a. VOC Emission Limits

- i. In accordance with Rule 419 of the RCAP, the permittee may not allow VOC emissions of 3 pounds per hour or 15 pounds per day in any article, machine, equipment or any other apparatus if said equipment does not have an acceptable control system, an emission reduction, prevention program or mechanism, or both, as approved or required by the Board.

b. Manufacture Emission Limit

1. This permit contains conditions that limit **FJR Aquisition Corp.** potential HAP emissions to the amounts indicated in Section IV. **FJR Aquisition Corp.** may not exceed emission limits during any 12 consecutive month period. The emissions for any 12 consecutive month period will be calculated by adding the monthly emissions of each unit to the total emissions of the units for the 11 preceding months.
2. HAP emissions coming from these emission units will be controlled by the carbon adsorption unit (CD-631-3291).[PFE-47-0802-1267-I-II-C]
3. The permittee shall keep a monthly estimate of emissions through this equipment based on the TOC (total organic compounds) readings of an FID (Flame Ionization Detector) type analyzer that will be calibrated every six months using methane. The total pounds of methane will be tallied every 365 days and an equivalent amount of HAP pounds will be calculated in keeping with the methods set forth in Appendix II.
4. The permittee shall inspect and provide maintenance in unit (CD-631-3291) in accordance with the manufacturer recommendations. The permittee shall keep records of maintenance provided to the control equipment at the facility

at all times for Board technical personnel review or submission to the Board when required to do so. [PFE-47-0802-1267-I-II-C]

5. The permittee shall provide a temperature indicator to monitor temperatures at the CD-641-0000 unit. This temperature indicator shall be accurate within 2% of the temperature measured in Celsius degrees or $\pm 2.5^{\circ}\text{C}$, whichever is greater. [PFE-47-0802-1267-I-II-C]
6. The permittee shall provide a regeneration flow meter at unit CD-631-3291 capable of recording the total regeneration flow within $\pm 10\%$ of the established value (e.g. accurate within $\pm 10\%$ of the reading). [PFE-47-0802-1267-I-II-C]
7. The temperature indicator and the flow meter of unit CD-631.3291 will be calibrated every 12 months. The permittee shall keep calibration records or documents available at the facility at all times for Board personnel review or submission to the Board when required to do so. [PFE-47-0802-1267-I-II-C]
- *8. The permittee shall check the carbon bed of unit CD-641-0000 every 12 months for poisoning (carbon contamination) in accordance with manufacturer specifications. The permittee shall keep the records or documents of this verification available at the facility at all times for Board personnel review or for submission to the Board when required. [PFE-47-0802-1267-I-II-C]
9. The continuous emissions monitoring system (CEMS) shall meet all the EPA performance monitoring specifications including, but not limited to the following:
 - a. 40 CFR part 60.13,
 - b. 40 CFR part 60, Appendix A, Method 25A, Determination of Total Gaseous Organic Concentration using a Flame Ionization Analyzer,
 - c. 40 CFR part 60, Appendix A, Method 25A, Determination of Total Gaseous Organic Concentration using a Flame Ionization Analyzer,
 - d. 40 CFR part 60, Appendix B, Performance Specifications 8
 - e. 40 CFR part 60, Appendix F, Quality Assurance Procedures.

10. **FJR Aquisition Corp.** shall install, calibrate and maintain CEMS in accordance with 40 CFR subpart A, section 63.8. The permittee shall perform quarterly audits of the gas cylinders during calibration of CEMS.
11. **FJR Aquisition Corp.** shall sample the concentration of HAPs every 15 minutes at the CAU exit, and shall prepare and keep a logbook of those concentrations. The logbook will be available at the facility at all times for Board personnel review or submission to the Board when required to do so.
12. **FJR Aquisition Corp.** shall prepare and keep the following records during the periods when the CEMS is out of service:
 - a. Specific identification of all measures required by the CEMS (including sampling data recorded during this period).
 - b. The time and date of the periods.
 - c. The nature and cause of the periods.
 - d. The corrective measures taken at the CEMS during those periods.
13. In the event that the CEMS is not operating, **FJR Aquisition Corp.** shall use the average of concentrations before and after the period during which the CEMS is in shutdown to estimate losses corresponding to that period.
14. The permittee shall keep a monthly logbook with the following information on the batches produced at the facility:
 - a. The name of processed batches that emit HAPs to the CAU.
 - b. The number and size of batches produced per month.
 - c. The starting and completion date of each batch.
 - d. The identification and quantity of controlled and uncontrolled atmospheric pollutants emitted per batch for each process.
 - e. The gas flow rate record at the CAU.
 - f. A record of the uncontrolled HAP and VOC emissions per processed batch calculated using the equations of the *Control Techniques Guidelines* (CTG) of 1978 and Best Engineering Practices.

- g. A record of the changes in the facility manufacture processes.
 - h. A record of the calculations used to estimate emissions during the cleaning or validation processes.
 - i. A CEMS reading-based record of the monthly estimate of controlled emissions by the CAU in terms of pounds of methane.
 - j. A record of CEMS calibrations and readings.
 - k. A record of the calculation of fugitive emissions using as a basis the estimates of the 1996 study or any other subsequent estimate of fugitive emissions.
 - l. A record of loading solvent into storage tanks.
 - m. A record of the physical characteristics of storage tanks pursuant to the TANKS Program, including stored solvent, amount added in gallons each month and pressure parameters for tanks conservation vents.
 - n. A report of the annual runs of the TANKS Program.
 - o. The loading records of the solution charged into the scrubbers and recirculation flow rate.
 - * p. **FJR Aquisition Corp.** may use other method to calculate the fugitive emissions as long as these methods are previously approved by EQB and/or EPA.
15. **FJR Aquisition Corp.** shall use the most recent version of the TANKS program to estimate tank losses on CAU controlled grounds. **FJR Aquisition Corp.** shall also use engineering estimates to assess other losses.

c. Scrubbers Operation Parameters

Below is a list of scrubbers' operation parameters:

Control Unit	Caustic Solutions	Initial Caustic Solution Concentration (pH)	Minimum Operating Concentration (pH)	Minimum Operating Flow (gallons / minute)
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Control Unit	Caustic Solutions	Initial Caustic Solution Concentration (pH)	Minimum Operating Concentration (pH)	Minimum Operating Flow (gallons / minute)
Packed Scrubber DOH-H 631-3401	Potassium Carbonate	> 12	4	≥ 30
Packed Scrubber DOH-E 631-3402	Sodium Sulfite	> 9	4	≥ 30
	Sodium Bisulfite	> 9		
	Sodium Carbonate	> 12		
	Calcium Carbonate	> 12		
	Sodium Hydroxide	> 12		
Packed Scrubber DOH-AB 631-3291	Sodium Sulfite	> 9	4	≥ 3
	Calcium Carbonate	> 12		
	Sodium Hydroxide	> 12		

1. **FJR Aquisition Corp.** shall inspect and give maintenance to the scrubbers in accordance with the manufacturer recommendations. **FJR Aquisition Corp.** shall provide equipment to monitor the following parameters in order to ensure adequate operating conditions:
 - a. Minimum flow rate of caustic solutions (as indicated in the above table)
 - b. pH (initial caustic solution concentration and minimum operating concentration as indicated in the above table)
2. **FJR Aquisition Corp.** shall install a flow meter in each scrubber to check the units operating parameters. The installed flow meter must be certified by the manufacturer and must be accurate within ±10% of the scrubber design flow.

3. The minimum flow rate shall be equal to, or above the limit value listed in the table in this section. The flow rate shall be kept during the operation of the scrubbers.
4. **FJR Aquisition Corp.** shall record the flow in the scrubbers every 4 hours during their operation.
5. **FJR Aquisition Corp.** shall calibrate each unit's flow meter every 12 months and keep calibration records or documents available at the facility at all times for Board personnel review or submission to the Board when required to do so.
6. The minimum pH level of the scrubbers recirculated liquid shall be equal to, or above the limit value listed in the above table. The minimum pH level shall be kept during the scrubbers operation.
7. **FJR Aquisition Corp.** shall record the pH of the scrubbers' effluents every four hours during the production of each batch. The solution used shall be changed when the pH is equal to 4 or when a new batch begins to be processed, whichever occurs first.
8. **FJR Aquisition Corp.** shall keep a monthly record of maintenance provided to each control equipment. Said record shall be kept at the facility at all times for Board personnel review or submission to the Board when required to do so.
9. **FJR Aquisition Corp.** shall do a monthly estimate, within a revolving 12-month period, of pre-control emissions as specified in the methodology (General Method) described in Appendix II.
10. **FJR Aquisition Corp.** shall keep a monthly logbook with the following information on the batches produced at the facility:
 - a. The name of batches processed at the Bay DOH-AB that emits HAPs to the CAU.
 - b. The name of batches processed at Bays DOH-AB, DOH-E and DOH-H that emit HAPs to scrubbers CD-631-3291, CD-631-3402 and CD-631-3401, respectively.
 - c. The number and size of each batch.
 - d. The starting and completion date of each batch.
 - e. The identification and quantity of controlled and uncontrolled atmospheric pollutants emitted per batch for each process.
- d. **Equipment (Fermenter, methanol charge tanks and vacuum pumps)**

1. **FJR Aquisition Corp.** shall keep a monthly logbook with the following information on the batches produced in the equipment included in this emission unit:
 - a. The name of the processed batches that emit HAPs to the CAU.
 - b. The number and size of each batch.
 - c. The starting and completion date of each batch.
 - d. The identification and quantity of controlled and uncontrolled atmospheric pollutants emitted by batch for each process.
2. **FJR Aquisition Corp.** shall use the best engineering practices and emission equations to estimate environmental losses as specified in Appendix II, when the emission unit is not directly related to manufacture batches.
3. **FJR Aquisition Corp.** shall have available a monthly estimate, on a 12-month revolving basis, of the emissions of the equipment included in this emission unit, as specified under the General Method described in Appendix II.

* **e. Fugitive Emissions Limit**

1. Annual emissions shall meet the emission standards for pharmaceutical production processes components in methylene chloride or carbon tetrachloride service, established in 40 CFR sections 63.163-63.190 (subparts H and I), referred to as SOCMHON. This regulation applies to the following equipments that are in organic hazardous atmospheric pollutants service for 300 or more hours per year:
 - a. pumps
 - b. compressors
 - c. agitators
 - d. pressure relief devices
 - e. sampling connection systems
 - f. open-ended valves or lines
 - g. valves
 - h. connectors
 - i. surge control vessels
 - j. bottoms receivers
 - k. instrumentation systems
 - l. control devices
2. **FJR Aquisition Corp.** shall prepare a Leak Detection and Repair Program (LDAR) that complies with the requirements established in 40 CFR part 63, subpart H and I.

Compliance will be determined through review of records and reports, review of performance tests results, and inspections.

3. **FJR Aquisition Corp.** shall comply with all monitoring and servicing requirements established in 40 CFR parts 63.163 to 174.
4. **FJR Aquisition Corp.** shall comply with all test methods and procedures established in 40 CFR part 63.180.
5. **FJR Aquisition Corp.** shall comply with all the recordkeeping requirements established in 40 CFR part 63.181.
6. **FJR Aquisition Corp.** shall comply with all the reporting requirements established in 40 CFR part 63.182.
7. In accordance with the methodology described in Appendix II, the permittee shall record on a monthly basis the number of processed batches and the calculation of fugitive emissions using the emission factor developed by batch in the 1996 study.
8. If the status of the facility changed so that it would no longer be subject to SOCFI HON (it no longer used methylene chloride, or it is not used in processes covered by SOCFI HON) the facility shall continue implementing the SOCFI HON leak detection and repair program. **FJR Aquisition Corp.** may submit a written consultation requesting a final determination from the EPA and the Board on this matter.

f. Reports

- * 1. **FJR Aquisition Corp.** shall submit an annual emissions certification report on or before April 1st of each year, including all the emission units in the facility (including insignificant activities) including the past natural year.
2. The annual emissions certification report shall include, but not be limited to the following:
 - a. Emission calculation for each emission source;
 - b. Copy of all the runs generated by the *TANKS* program;
 - c. A summary of the criteria pollutants emissions for the facility (ton/year);
 - d. List and identification of each hazardous atmospheric pollutant emitted;

- e. Total of each hazardous atmospheric pollutant emitted (ton/year);
- f. Amounts of chloroform, methanol, methylene chloride, acetaldehyde, dimethylformamide, hydrogen chloride and triethylamine purchased during the year;
- g. Name, identification and amount of batches produced during the year;
- h. Total fuel (diesel and gas) consumption for the facility;
- i. Hours of operation of the cogeneration engines, the boilers, the power plants and the fire pumps;
- j. The compliance status certification of the facility;
- k. Any other fact that the EQB may require; and

2. EC-121- Three 35 MMBtu/hr industrial boilers

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping Requirements	Reporting Frequency
Opacity Limit Rule 403 of the RCAP	Opacity	20%	6-minute average percent	Method 9	Once during the first year of the permit	For every reading	*Report results within 60 days of each reading
				Visible Emissions	Weekly	*Weekly Register	*Report results every six months
Emission limit for fuel burning equipment Rule 410 of the RCAP	PM	0.3	Pounds per million Btu	Chimney sampling using Method 5 or Method 17	Once during the first year	Logbook Recording of sampling results	60 days after the sampling
Limit for sulfur content of fuel Rule 410 of the RCAP	Sulfur Content	2.5	Percentage per weight	Analysis by the fuel supplier upon each delivery	Every time fuel is received.	Daily	Monthly
Fuel consumption limit	Fuel Consumption #6	4,730,400	gals/year	Consumption	Monthly	Monthly recording of fuel consumption	Annual

a. Particulate Matter Emission Limit:

- i. The permittee may not cause or allow particulate matter emission exceeding 0.3 pounds per million Btu of heat input.

ii. To show compliance with the above condition, the permittee will use any of the following methods:

a. Stack sampling:

1. **FJR Aquisition Corp.** shall conduct a sampling during the first year of the permit using Method 5 or Method 17 in 40 CFR, part 60, Appendix A.
2. **FJR Aquisition Corp.** shall submit for Board approval a sampling protocol at least 30 days before conducting the sampling. This protocol must contain the information described in Rule 106(C) of the Regulation for the Control of Atmospheric Pollution (RCAP).
3. **FJR Aquisition Corp.** shall notify the Board in writing 15 days before conducting the sampling to allow the Board the opportunity to have an observer present. [Rule 106 (D) of the RCAP]
4. **FJR Aquisition Corp.** shall submit two copies of the sampling results report within 60 days after the tests are completed. This report will have the information required under Rule 106 (E) of the RCAP.
5. During the tests, the source must be operating at full capacity or based on a representative performance of the affected facility at the time of the sampling; provided, after compliance with any applicable emission limit has been proven, the Board may restrict the operation of the source to the capacity reached during the performance tests. [Rule 106 (F) of the RCAP]

b. Fuel supplier certification of sulfur content.

1. **FJR Aquisition Corp.** shall keep records of the type, actual use and sulfur percentage in the fuel, certified by this unit's supplier.
2. **FJR Aquisition Corp.** shall use the most recent AP-42 emission factors together with the fuel use and sulfur content records to calculate the particulate matter emissions and show compliance with the particulate matter limit established in the above table. EPA's AP-42 Emission factors: *Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, Fifth Edition, Office of Air Quality Planning and Standards*

b. Visible Emissions Limit:

- i. **FJR Aquisition Corp.** shall conduct weekly visual opacity inspections during daytime hours using a Visible Emissions Reader certified by an EPA- or EQB-approved program. When the certified reader establishes that the opacity limit is being exceeded under Rule 403 of the RCAP, **FJR Aquisition Corp.** shall check that the equipment and control equipment causing the visible emissions is operating in accordance with the manufacturer specifications and the permit conditions. If it is not performing adequately, **FJR Aquisition Corp.** shall take immediate corrective actions to eliminate the opacity excess.
 - ii. **FJR Aquisition Corp.** shall retain an independent opacity reader, certified by an EPA-approved school to take an opacity reading during the first year of the permit using the Method 9 established in 40 CFR part 60, Appendix A.
 - iii. **FJR Aquisition Corp.** shall submit for Board approval a sampling protocol at least 30 days before conducting the sampling. This protocol must contain the information described in Rule 106(C) of the Regulation for the Control of Atmospheric Pollution (RCAP).
 - iv. **FJR Aquisition Corp.** shall notify the Board in writing 15 days before conducting the sampling to allow the Board the opportunity to have an observer present. [Rule 106 (D) of the RCAP]
 - v. **FJR Aquisition Corp.** shall submit a final report within 60 after the date the sampling has been completed. [Rule 106 (E) of the RCAP].
 - vi. **FJR Aquisition Corp.** shall submit to the EQB and the EPA a copy of the readings report on opacity emissions 60 days after the reading.
 - vii. According to Rule 603(a)(4)(ii) of the RCAP, **FJR Aquisition Corp.** shall keep in the records all the required sampling data and the support information for a 5-year period beginning on the date of the monitoring sample, measurement, report or application. This includes a record of the readings of visible emissions, containing the dates and times of the readings.
 - viii. The Board reserves the right to demand additional readings of opacity lectures in order to show compliance with the opacity limit.
- c. **Fuel Consumption Limit:**
- i. The fuel to be used in each of the three 35 MMBtu/hr boilers is limited to fuel No. 6. Two boilers may be operated simultaneously and total fuel consumption for these sources may not exceed 4,730,400 gallons per year in any consecutive 365-day

period. The content of sulfur in the oxidized fuel may not exceed 2.5% per weight. [PFE-47-0802-1267-I-II-C]

- ii. Fuel consumption for any revolving 365-day period will be calculated by adding the units daily fuel consumption to the total fuel consumed by the units during the preceding 364 days. [PFE-47-0802-1267-I-II-C]
- iii. Within the first 90 days beginning on the effective date of this permit, **FJR Aquisition Corp.** shall install and operate a fuel flow meter in the boilers. The flow meter will be calibrated every six months in accordance with the manufacturer recommendations. **FJR Aquisition Corp.** shall prepare and maintain a record including the calibration date, time, methodology used, and results for Board technical personnel inspection. Alternately, **FJR Aquisition Corp.** may request in writing another equivalent method to measure fuel consumption for the Board evaluation and approval. The request for an alternate method must be made within the period granted for the installation of a flow meter.
- iv. **FJR Aquisition Corp.** shall keep the results and methodology of the flow meter calibrations for the combustion unit for at least 5 years, in accordance with Rule 603(a)(4)(ii) of the RCAP.
- v. **FJR Aquisition Corp.** shall submit each year, together with the annual compliance certification, a copy of the monthly and annual fuel consumption reports of the boiler corresponding to the report year.
- vi. **FJR Aquisition Corp.** shall keep a daily record including the boilers' hours of operation and fuel consumption. [PFE-47-0802-1267-I-II-C]

d. SO₂ Emission Limit:

- i. The sulfur content of the fuel burned by the three boilers may not exceed 2.5 percent per weight. [PFE-47-0802-1267-I-II-C]
- ii. **FJR Aquisition Corp.** shall keep a document certified by the supplier indicating the sulfur content of the fuel in order to meet the daily recordkeeping requirement of the sulfur content of burned fuel. **FJR Aquisition Corp.** shall obtain an analysis of the sulfur content upon every fuel delivery using the ASTM Method 4294 or ASTM Method 2880-71.
- * iii. **FJR Aquisition Corp.** shall submit each year, with the annual compliance certification, a summary of the reports submitted monthly for the previous natural year indicating the fuel consumption, sulfur content of burned fuel in percentage per

weight and the amount of SO₂ emissions in tons per year. **FJR Aquisition Corp.** shall also submit sampling reports, which must contain the following:

- a. the date, place (as defined in the permit) and time of the sampling,
 - b. the date on which the analysis were conducted,
 - c. the company or entity that conducted said analysis,
 - d. the analytical methods or techniques used,
 - e. the results of those analysis, and
 - f. the operating conditions at the time of the sampling.
- iv. **FJR Aquisition Corp.** shall keep the records of all the required sampling data and support information for a 5-year period beginning on the date of the monitoring sample, measurement, report or application. This includes a record of the sampling results of fuel and sulfur content of burned fuel in accordance with Rule 603(a)(4)(ii) of the RCAP.
- v. **FJR Aquisition Corp.** shall deliver to the Board a monthly report indicating the daily fuel consumption and the sulfur content of fuel in percentage per weight. This report must be delivered to the Board no later than 15 days after the month that is represented in the report. The report must be addressed to the Data Validation and Mathematic Modeling Division of the Evaluation and Strategic Planning Area and shall be available for EPA and Board technical personnel review at the facility at all times. [Rule 410 of the RCAP]

3. EC-122 – Five Power Plants (261-6500, 443-6500, 443-6501, 533-6500, 631-6500)

Condition	Parameter	Value	Units	Compliance Method	Method Frequency	Recordkeeping Requirements	Reporting Frequency
Particulate matter emission limit	Particulate Matter	0.3	Pounds per Million Btu	Chimney Test using 40 CFR, part 60, Appendix A, Method 5.	Within the first year of the permit.	Keep a copy of the final report for a 5-year period beginning on the date of the report [Rule 603 (A)(4)(ii)].	60 days after the date of the sampling.
SO ₂ Emission Limit	Sulfur content	0.5	Percentage per weight	Supplier Certification	Every time fuel is received.	Sulfur Percentage Record	Monthly

Condition	Parameter	Value	Units	Compliance Method	Method Frequency	Recordkeeping Requirements	Reporting Frequency
Fuel Consumption	Diesel Fuel EP-261-6500(400Hp)	262,800	Gallons/year	Flow meter	Calculate monthly consumption.	Daily record of fuel consumption.	Monthly
	EP-443-6500(670Hp) EP-443-6501(670Hp)	350,400					
	EP-533-6500 (670 Hp) EP-631-6500 (1,000Hp)	438,000					
Visible Emissions	Visible Emissions	20	6-minute average percent	Method 9	Once during the first year of the permit.	Visible emissions readings.	60 days after each reading.
				Inspection of visible emissions	Daily		

1- PARTICULATE MATTER LIMIT

- (A) The permittee may not cause or allow particulate matter emissions in excess of 0.3 pounds per million Btu of heat input, coming from any equipment for burning solid or liquid fuel.
- (B) The permittee shall conduct a sampling during the first year of the permit to determine compliance with the standard, using 40 CFR 60, Appendix A, Method 5.
- (C) In accordance with Rule 106 (C) of the RCAP, the permittee shall submit a sampling protocol at least 30 days before testing begins.
- (D) The permittee shall submit a written notification 15 days before conducting the test to allow the Board to appoint an observer. [Rule 106 (D) of the RCAP]
- (E) In accordance with Rule 106 (E) of the RCAP, the permittee shall submit a final report within 60 days after the emissions sampling.

- (F) In accordance with Rule 603 (A)(4)(ii) of the RCAP, the permittee shall keep a copy of the final report for a five-year period beginning on the date of the sampling.

2. SO₂ EMISSION LIMIT

- (A) In accordance with Rule 410 of the RCAP, the permittee shall only burn diesel fuel with a maximum of 0.5% sulfur content per weight.
- (B) In accordance with Rule 603(A)(4)(ii) of the RCAP, the permittee shall retain the records of all required sampling data and the support information for a five-year period beginning on the date of the monitoring sample, measurement, report or application. This includes a record of the monthly reports on fuel consumption and sulfur content of burned fuels.
- (C) The permittee shall submit, within the first 15 days of the month following the reported month, a monthly report indicating the fuel consumption and sulfur content by weight.
- (D) In order to determine the sulfur percentage in the fuel, the permittee shall record the content of sulfur of the most recent fuel delivery and shall obtain a sulfur content analysis upon each delivery. The sulfur content in the fuel will be determined using the ASTM Method 4294 or ASTM Method 2880-71.

3- FUEL CONSUMPTION RATE LIMIT

- (A) **FJR Aquisition Corp.** shall not exceed the following diesel fuel consumption rate:

Emission Unit	Horsepower (Hp)	Consumption Rate (gal/yr)
261-6500	400	262,800
443-6500	670	350,400
443-6501		
631-6500	1000	438,000

at unit EC-122 for any consecutive 12-month period. In order to show compliance with this limit, the permittee shall keep a daily record of fuel consumption. [PFE-47-0802-1267-I-II-C]

Fuel consumption for any consecutive 12-month period shall be calculated by adding the total monthly fuel consumption for each unit during the 11 preceding months.

- (B) The permittee shall install and operate fuel flow meters in the power plant. The fuel meters must be calibrated every six months or in accordance with the manufacturer's recommendations, whichever is less. The permittee shall keep the calibration results and methodology available at the facility for Board technical personnel review.
- (C) In accordance with Rule 603(A)(4)(ii) of the RCAP, the permittee shall keep the records of all the required sampling data and support information for a five-year period beginning on the date of the monitoring sample, measurement, report or application. This includes a record of the monthly and annual fuel consumption reports for each combustion unit. The monthly compliance is determined by adding the total amount of fuel consumed during the preceding 11 months.

4- VISIBLE EMISSIONS LIMIT:

- (A) **FJR Aquisition Corp.** may not exceed the 20 percent opacity limit in a six-minute average. However, and in accordance with Rule 403 (A) of the RCAP, the permittee may emit visible emissions with opacity of up to 60 percent for a period of not more than four minutes within any consecutive 30-minute period.
- (B) **FJR Aquisition Corp.** shall conduct visible emissions readings using Method 9 established in 40 CFR 60, Appendix A, during the first year of the permit. The permittee shall retain an independent opacity reader duly certified by the EQB to conduct these tests.
- (C) **FJR Aquisition Corp.** shall make an opacity inspection, whenever the emission source is operating during the first year of the permit. These inspections shall consist of observing each chimney every day for a two-minute period to identify whether there are visible emissions, not due to water steam. The observer shall take a position at least 15 feet away, but not more than 0.25 miles away from the sources. Sunlight cannot shine directly on the eyes of the observer. If emissions are observed, the permittee shall do the following:
 - 1) Verify that the equipment and/or control equipment causing the visible emissions is operating in accordance with the manufacturer specifications and permit conditions. If it is not operating adequately, corrective measures must be taken immediately to eliminate the opacity excess.

- 2) If the corrective actions do not correct the opacity problem in 24 hours, the permittee shall conduct a visible emissions reading using Method 9 established in 40 CFR, Appendix A. The permittee shall retain an independent opacity reader certified by the EQB to conduct these tests. The tests shall be conducted during every work shift until the problem has been corrected.
- 3) Any deviation must be reported to the Board within 24 hours.

Section VI- Insignificant Emission Units

The following list of insignificant activities was provided by the source for a better understanding of its operations. Because there is no requirement to update this list, the activities may have suffered changes since it was submitted.

Emission Unit Identification	Description (Criterion for exemption)
* Fire pumps (343-3906 y 343-3902)	Appendix B, Section 3 (VI) of the RCAP.
Tank of less than 10,000 gallons capacity.	Appendix B, Section ii (N) of the RCAP.
Video Jet Ink Source	Appendix B, Section ii (P) of the RCAP.
Methylene Chloride Tank (5,000 gallons) (441-3203 y 441-3204)	Appendix B, Section ii (N) of the RCAP.
Gas (939-3101), Diesel (939-3102), and Tanks (939-3103)	Appendix B, Section xi of the RCAP.
Laboratories Waste	Appendix B, Section xxi of the RCAP.
*Steroids Tank Far EP-621-321 m	Appendix B.3.ii(N) of the RCAP.
*Steroids Tank F EP-621-3121 arm	Appendix B.3.ii(N) of the RCAP.
*Electric Energy Generators: 1,073Hp, 335 Hp, 400Hp, 268Hp, 201Hp, 600Hp, 600Hp, 600Hp, 600Hp, 600Hp, 670Hp, 670Hp, 670Hp, 1,000Hp, Portable 301.7 Hp (225KW), and Portable 301.7 Hp (225KW)	Appendix B.3.ii(O) of the RCAP.

Section VII- Permit Shield

- A. As specified under Rule 603(D) of the RCAP, compliance with the conditions of the permit shall be deemed compliance with any applicable requirement identified in the permit and with any requirement identified as non-applicable to the source as of the date of permit issuance indicated below. Compliance with the conditions of the permit shall be deemed compliance with all the permits issued to **FJR Aquisition Corp.** under Rules 203 and 204 of the RCAP [on the effective date of the permit].

B. Non-Applicable Requirements

Non Applicable Requirements		
State	Federal	Reason
	40 CFR Part63, Subpart GGG	See Section VII Part B of this Permit

C. Reasons for Non Applicability

Coding for Non Applicability	
Code	Reason
40 CFR Part 63, Subpart GGG	Synthetic Minor Source Emission Certification in HAP's

Section VIII- Permit Approval

By virtue of the authority conferred upon the Environmental Quality Board by the Environmental Public Policy 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 Environmental Public Policy 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, December 12, 2008.

ENVIRONMENTAL QUALITY BOARD

/s/
Eng. Noelia Y. Rosa Jaime
Vice President

/s/
Eng. Angel O. Berríos Silvestre
Associate Member

/s/
Esq. Javier J. Rúa
President

APPENDIXES

Appendix I - Definitions and Abbreviations

A. Definitions:

1. Act – Clean Air Act, as amended, 42 U.S.7401, et seq.
2. Responsible Official – See definition of “Responsible Official” as established in the Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board (1995).
3. Regulation – Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board.
4. Permittee – Person or entity to which the Environmental Quality Board has issued an Operating Permit for an Emission Sources covered under Title V.
5. Title V – Title V of the Clean Air Act (42 U.S.C. 7661).

B. Abbreviations

1. Btu – British thermal unit
2. CERCLA - Comprehensive Environmental Emergency Response, Compensation & Liability Act
3. CFR – Code of Federal Regulations
4. CO – Carbon Monoxide
5. EQB – Puerto Rico Environmental Quality Board
6. EPA – Environmental Protection Agency
7. HAP – Hazardous Atmospheric Pollutant
8. LDAR – Leak Detection and Repair
9. NAAQS – National Ambient Air Quality Standards
10. NESHAP – National Emission Standards for Hazardous Air Pollutants
11. NO_x - Nitrogen Oxides

12. PM₁₀ – Particulate Matter less than or equal to 10 microns mass median aerodynamic diameter
13. PSD- Prevention of Significant Deterioration
14. RCAP – Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board
15. RCRA – Resource Conservation and Recovery Act
16. SIC - Standard Industrial Classification
17. SO₂ – Sulfur Dioxide
18. SPNSS – Standards of Performance for New Stationary Sources
19. SSM - Startup, Shutdown and Malfunctions of operations
20. VOC – Volatile Organic Compound

Appendix II - Methodology for Calculations

Methodology for the Calculation of HAP Emissions

FJR Aquisition Corp., operates diverse emission sources of compounds regulated by the Clean Air Act and the Regulation for the Control of Atmospheric Pollutants (RCAP) of Puerto Rico. The Hazardous Atmospheric Pollutants (HAPs) are among the regulated compounds.

General Method

This method shall be used to estimate uncontrolled (pre-control equipment) air emissions of HAP or VOC (volatile organic compounds) type pollutants, which arise from the pharmaceutical manufacturing processes. These emissions shall be calculated monthly in tons per month for each individual HAP. The calculations shall be completed before the end of the following month. The emissions of the current month shall be added to the emissions of the preceding 11 months to attain an annual calculation of emissions (tons/year) for said revolving 12-month period. The permittee shall begin calculating monthly emissions on the month following the first full month of operations, after this permit is effective.

FJR Aquisition Corp. shall follow the procedures described below to calculate monthly emissions.

Process Emissions (pre-control): VOC and HAP emissions shall be calculated for all process steps that have been operated at **FJR Aquisition Corp.** facilities using the equations in the 1978 Control Techniques Guidelines (CTG) and the Best Engineering Practices. The information used in the CTG equations must include the amount of solvent charged into each reactor, as obtained from the process batch sheets. The estimated values per batch shall be used to calculate (pre-control equipment) monthly losses caused by the particular processes that have been completed during the preceding month. That is:

HAP/VOC Emissions per (pre-control equipment) Batch = $\Sigma(\text{Individual HAP/VOC Loss Lbs//Batch}) \times (\text{no. of batches completed in the month})$

Calculation examples have been included below.

Change Management: Process changes that may significantly change batch emissions shall be identified in advance of the change, using the management system for facility process changes. The information used in the CTG equations must then be modified to reflect the changes in manufacture processes. **FJR Aquisition Corp.** shall keep records of the information on the processes and the calculations used for each step. **FJR Aquisition Corp.** shall keep records of significant changes in the processes contained in the change management system. Records of the calculations used to estimate emissions during cleaning or validation processes must also be kept.

Sources Connected to Carbon Adsorption Unit (CAU), 641-0000

FJR Aquisition Corp. operates a carbon adsorption system consisting of three beds each holding approximately 6,250 pounds of carbon. The CAU was designed to ensure a concentration of 50 ppm (as methane) at the exit. It receives approximately 800 to 1,000 cubic feet of process gases. This system maintains two beds in series at all times while the third bed is regenerated with steam and then stands by. If we enumerate the beds as 1, 2, and 3, during normal operation, bed 1 and 2 remain in series. Bed 1 receives process gases until it is saturated. At this time, bed 3 joins bed 2 in series (this last one was acting as polishing, because it was working in series) and bed 1 goes to regeneration and then stands by. At this time, bed 2 would be receiving the greater part of the process load and bed 3 would act as polishing.

FJR Aquisition Corp. shall use the general method to estimate HAP and VOC uncontrolled (pre-control system) process emissions as indicated above. Then the distribution will be calculated in percentage per weight of each pollutant. That is, the total of each individual pollutant will be divided by their total sum at entry in the CAU.

FJR Aquisition Corp. shall use continuous emissions monitoring system (CEMS) of an FID (Flame Ionization Detector) type, described in Attachment D, which will analyze samples taken from the CAU exit chimney. The continuous monitoring equipment must be certified in accordance to the procedures established in 40 CFR part 60, Appendix B. The CEMS must be calibrated using methane gas and a record must be kept of the concentration values and gas flow. **FJR Aquisition Corp.** shall keep a monthly estimate of the emissions in terms of pounds of methane emitted through the CAU, based on CEMS readings. The total of methane equivalent pounds will be tallied monthly and an amount of equivalent HAP and VOC pounds shall be calculated. This calculation must be done as follows:

- (1) it will be assumed that the monthly estimated HAP and VOC composition at the CAU entry will be equal to that at exit,
- (2) percentages by weight of each component will be multiplied by the total equivalent pounds of methane calculated at exit, and
- (3) equivalent methane pounds will be multiplied by the molecular weight ratios of the particular HAP or VOC compound divided by the molecular weight of methane. This calculation shall constitute HAP and VOC pounds emitted during the month in question.

HAP emissions to the environment during the current month will be added to the emissions for the 11 preceding months to obtain the total annual emission (tons/year) for each revolving 12-month period. **FJR Aquisition Corp.** shall begin calculating monthly emissions on the month following the first month of operation, after this permit is effective.

Control requirements will be completely satisfied when:

- the sum of the individual HAPs from the sources described in this permit is equal or less than the following: 9.2 tons for chloroform, 9.2 tons for methylene chloride, 6.0 tons for methanol, 1.0 ton for each HAP (acetaldehyde, dimethylformamide, HCl and triethylamine).
- and the total sum of HAPs is 23.4 tons or less during revolving 365-day periods.

Calculation examples are given below.

Calculation Examples – Emissions through the CAU:

Example 1: Annual Calculation

Let us assume that a constant flow of 800 SCFM is recorded at the CAU exit chimney and an average concentration of 50 ppmv is measured throughout the year. The emission of substances in methane units can be estimated at 0.44 tons of methane (see Table 3), assuming that the estimated percentages per weight at entry in the CAU correspond to those of the gas at the CAU exit.

Table 2: Example of Calculation of Emissions using a CEM and the equivalents of several HAPs if these were alone in the discharge.

Volumetric Flow Rate = 800.0 SCFM
 TOC (as Methane) 50.0 ppm
 Molecular Weight = 16.0 lbs/lbs-mol

VOC mass rate

$$VOC(mer) = Q_{std} * Corr_3 * 60 * \left(\frac{0.0026 * PM}{10^6} \right)$$

$$VOC(mer) = 800 * 50 * 60 * \left(\frac{0.0026 * 16.0}{10^6} \right) = 0.10 lbs / hr = 0.44 ton / year$$

Chemical Substance	Formula	PM	Carbons	CEM (ppm)	Chimney Emissions (tons/year)
Methane	CH ₄	16.04	1		0.44
Chloroform	CHCl ₃	119.39	1		3.26
Methylene Chloride	CH ₂ Cl ₂	84.94	1		2.32
Methanol	CH ₃ OH	32.04	1		0.88

Table 3 shows an example of this type of calculation for when the entry of gases to the carbon adsorption unit contains a mixture of HAP compounds and other compounds.

The results of Table 3 show how particular HAP emissions can be estimated at the CAU exit based on emissions estimates at CAU entry and the concentration measured as methane at the CAU exit.

Table 3: Example of the determination of the composition at the CAU exit when there is an estimate in methane units of 1.34 tons at exit and the annual charge at entry is estimated at 194 tons.

Component	Molecular Weight	CAU (entry)	Composition	CAU (exit)
Chloroform	119.39	47 ton/year	24.33	2.42
Methylene Chloride	84.94	71 ton/year	36.6	2.6
Methanol	32	43 ton/year	22.16	.59
Others (not HAPs)	25	33 ton/year	17.01	.36

Example 2: Monthly Calculation

Let us assume that during a particular month only three batch processes are operated and that their control equipment is the carbon adsorption system. **FJR Aquisition Corp.** keeps the following record:

Month: November

Process	Batch No.	Completion Date
One	7008ONE-	11/21/
One	7009ONE-	11/23/
One	7010ONE-	11/24/
One	7011ONE-	11/25/
One	7012ONE-	11/26/
One	7013ONE-	11/27/
One	7014ONE-	11/28/
One	7015ONE-	11/29/
One	7016ONE-	11/30/
One	7017ONE-	11/31/
Two	7001TWO-	11/01/
Two	7002TWO-	11/03/

Two	7003TWO-	11/06/
Two	7004TWO-	11/11/
Two	7005TWO-	11/13/
Two	7006TWO	11/21/
Two	7007TWO-02	11/21/

In short, during the month of November, 10 batches of process **One** and 7 batches of process **Two** were completed.

For these processes, the following emission information is available after being estimated using the 1978 CTG and the Best Engineering Practices.

Process	Pollutant	Pre-control Equipment Emission
One	Chloroform	1920.58
	Ethyl Acetate	11.41
	Methanol	32.04
Two	Methylene Chloride	166.807
	Ethyl Acetate	33.3
	Methanol	70.3
	Acetone	4.0

The monthly emission calculations (pre-control equipment) are obtained by multiplying the number of batches by the emissions per estimated loads.

Process	Pollutant	Pre-control Equipment Monthly Emission
One	Chloroform	19205.8
	Ethyl Acetate	114.1
	Methanol	1320.4
Two	Methylene Chloride	1167.65
	Ethyl Acetate	233.1
	Methanol	492.1
	Acetone	28.0

Then pollutant emissions are added and the composition is calculated in percentage by weight:

	Pounds for the month	% Weight
Chloroform	19,205.8	89.08

Ethyl Acetate	347.2	1.61
Methanol	812.5	3.77
Acetone	28.0	0.13
Methylene Chloride	1167.65	5.31
Total	21,561.15	100%

For purposes of this example, let us assume that the CEMS measures a constant concentration of 50 ppm (as methane) during the whole month and the flow through the CAU remains at 800 scfm. Using Table 3 of this section, we can see that this data corresponds to a loss of 1.0 pounds of methane per hour. The loss as methane can be calculated as follows:

$$(0.1 \text{ lbs of methane/hr}) \times 30 \text{ days} \times 24 \text{ hours} = 72 \text{ pounds of methane}$$

The equivalent losses for each pollutant can be estimated by multiplying the pounds of methane by the individual percentage of each gas at entry (it is assumed that the entry and exit compositions remain constant) and multiplied by the pollutant's molecular weight ratio divided by methane's molecular weight):

$$\begin{aligned} \text{chloroform (Lbs)} &= 72 \text{ Lbs methane} \times (.8908) * 119.39/16 = 478.59 \text{ Lbs} \\ \text{ethyl acetate (Lbs)} &= 72 \text{ Lbs methane} \times (0.0161) * 88.11/16 = 6.38 \text{ Lbs} \\ \text{methanol (Lbs)} &= 72 \text{ Lbs methane} \times (0.0377) * 32.04/16 = 5.44 \text{ Lbs} \\ \text{acetone (Lbs)} &= 72 \text{ Lbs methane} \times (0.0013) * 58.08/16 = 0.340 \text{ Lbs} \\ \text{methylene chloride (Lbs)} &= 72 \text{ Lbs methane} \times (0.0531) * 84.94/16 = 20.30 \text{ Lbs} \end{aligned}$$

The tons of HAPs emitted through the CAU are:

$$\begin{aligned} &= [(\text{Lbs of chloroform}) + (\text{Lbs of methanol}) + (\text{Lbs of methylene chloride})]/2000 \\ &= [(478.59) + (5.44) + (20.30)]/2000 = 0.252 \text{ tons} \end{aligned}$$

The concentrations average before and after the period during which the CEMS is out of service will be used to estimate the losses corresponding to that period.

Sources connected to Scrubbers:

The general method shall be used to calculate each batch's pre-control emissions by load. Using control equipment efficiency data, HAP emissions will be calculated by multiplying the pre-control estimate by the inefficiency of the control equipment (inefficiency = 1 - Efficiency (fraction)).

Control requirements will be completely satisfied when:

- the sum of the individual HAPs of the sources described in this permit is equal or less than the following: 9.2 tons for chloroform, 9.2 tons for methylene chloride, 6.0 tons for methanol, 1.0 ton for each HAP (acetaldehyde, dimethylformamide, HCl and triethylamine).
- and the total sum of HAPs is 23.4 tons or less during revolving 365-day periods.

Storage Tanks

The equations of section 7.1 of AP-42, organic liquids or the most recent version of the EPA's Tanks Program are used to calculate the emissions lost by venting each solvent storage tank. The equations of the tanks program are the same as those in section 7.1 of AP-42. The stored solvent, the composition of stored material, the added amounts (gallons per period), the tanks physical dimensions and characteristics (for example, the tank diameter, isolation state, temperature according to data obtained from the National Weather Service, the pressure parameters of conservation vents) are entered to the TANKS program and to the AP-42 equations. **FJR Aquisition Corp.** will calculate venting losses once per year assuming the worst case and will use these emissions for the following year. For example, venting losses will be calculated in January 2003 and used to estimate venting losses during the period from January 1, 2002 to December 31, 2002. The emissions calculated for venting losses for the year 2002 will be divided by 12 to obtain a venting loss monthly average (pounds of venting losses per year divided by 12 equals average monthly pounds). The documentation of worst-case assumptions (for example, the type of solvent, the composition, the liquid height, the information used to enter data to the program and the reports) will be kept.

The emissions emitted during the delivery from truck tanks to solvent tanks will be calculated on a monthly basis. The uncontrolled emissions during loading operations will be calculated using the TANKS program. When the uncontrolled emissions of storage tanks are sent to a control at the end of the line, **FJR Aquisition Corp.** shall use the procedures described in the foregoing section to calculate controlled emissions of the storage tanks. The actual emissions for venting losses will be calculated once every year.

Used Waters

Used waters containing VOCs or HAPs are sent from the process equipments (for example, reactors, filters, centrifuges) directly to the pre-treatment system. Used waters are accumulated in the covered pump stations (tanks) and pumped into the used water treatment system. **FJR Aquisition Corp.** will keep a dry floor policy, meaning that used waters containing high levels of solvents will not be sent through open channels or through floor drainages or gravity sewers. These used waters will be sent through gravity drainages from the source to the pump station and then pumped into the equalization tanks before pretreatment. The transfers will take place through closed pipes.

The used water pretreatment system at the facility consists of a series of mixture and used waters accumulation tanks for a vapor stripping system, a chloroform destruction system (CDU), additional distillate collecting tanks and a series of mixing tanks and tanks for pH control of diluted used waters. All the tanks and process equipment are covered. The tanks containing high levels of solvents are vented to the CAU, which was previously discussed.

The worst-case estimates of solvent levels in used waters have been generated using analytical data and the knowledge of the process. Likewise, worst-case estimates of the flow rates of different currents of used waters will be developed. The emission rate of the worst case of daily mass will be multiplied by the number of operation days per year to determine the worst case of annual uncontrolled emissions.

All the assumptions and information will be documented and kept at the facility at all times.

Fugitive Emissions from Equipment Components

Fugitive emissions of HAP type pollutants from equipment must be calculated using specific emission factors for each type of component (for example, valves and connectors) as described in the *Guidance for Estimating Fugitive Emissions from Equipment* developed by the Chemical Manufacturers Association (which incorporated the protocols established by the EPA). These emission factors are stated in pounds/hour for type of component. **FJR Aquisition Corp.** shall keep the supporting documentation showing the basis of the emission factors for each type of component.

The number of components in each process step is determined by making a list of the equipment (for example, reactor, storage tanks and filters) that are used in each step of the process and then reviewing the piping and instrumentation diagrams to establish the number of components in the configuration of the process equipments. The duration of each step (batch/hour) is established in the batch records. The emission factor for each process step (pounds/batch) is developed by multiplying the number of the different components in the process step by the emission factor of each component (pounds/hour) by the duration (hours) of each batch (batches/hour) to obtain an emission factor for each batch (batches/hour). A 1996 study will be used as basis for the calculation to establish fugitive emission factors per process (batch) and to calculate the fugitive emissions by multiplying the factor by the number of batches.

FJR Aquisition Corp. shall calculate monthly HAP emissions from equipment releases for each process step by multiplying the emission factor of the process step (pounds/batch) by the number of batches produced in the month. Fugitive emissions for each process step operated during the month shall be added to obtain the total monthly fugitive emissions of the process steps. Below is a calculation example.

Example 3: Calculation of Fugitive Emission Losses (by batch)

The numbers of batches from Example 2 will be used for this example. That is, during the month of November 2002, 10 batches of process **One** and 7 batches of process **Two** were completed.

The emission factors for these processes are:

Process	Pollutant	Estimated Fugitive Emission (Lbs per Batch)
One	Chloroform	0.685
	Ethyl Acetate	4.837
	Methane	0.276
Two	Methylene Chloride	1.801
	Ethyl Acetate	1.062
	Methanol	3.563
	Acetone	0.106

$$\text{chloroform (Lbs)} = (0.685) \times 10 = 6.85 \text{ Lbs}$$

$$\text{ethyl acetate (Lbs)} = (4.837 \times 10) + (1.062 \times 7) = 55.804 \text{ Lbs}$$

$$\text{methanol (Lbs)} = (0.786) \times 10 + (3.563) \times 7 = 32.801 \text{ Lbs}$$

$$\text{acetone (Lbs)} = (0.106) \times 7 = 0.742 \text{ Lbs}$$

$$\text{methylene chloride} = (1.801) \times 7 = 12.607 \text{ Lbs}$$

The tons of HAPs emitted as fugitive emissions are:

$$\begin{aligned} & [(\text{Lbs chloroform}) + (\text{Lbs methanol}) + (\text{Lbs methylene chloride})] / 2000 = \\ & = [(6.85) + (32.801) + (12.607)] / 2000 = 0.0261 \text{ tons} \end{aligned}$$

OTHER AREAS

FJR Aquisition Corp. shall establish HAP emissions from the boilers, emergency power plants and fire pumps using the emission factors published in the AP-42. **FJR Aquisition Corp.** shall cite the specific reference of the factor used in the calculations: gallons, thermal value of fuel and sulfur content in percentage by weight for each unit. These calculations will be done monthly and a copy of the same, signed and sealed by a licensed engineer, must be sent with the Annual Compliance Report. The references for these factors must be kept in spreadsheets and hard copies must be submitted with the Annual Compliance Report.

Pollutants	Area	Calculation Frequency
HAP Combustion Products (HAPs)	Process Emissions	Monthly
	Solvent Recovery	Monthly
	Storage Tanks Loading	Monthly
	Storage Tank Venting	Monthly (annual worst case/12)
	Emergency Power Plants	Monthly
	Fugitive Emissions	Monthly
	Used Waters	Monthly (annual worst case/12)
	Utilities	Monthly

Appendix III - Continuous Emission Monitoring System (CEMS)

- 1) **FJR Aquisition Corp.** shall keep a continuous monitoring system, FID (Flame Ionization Detector) type that will sample and analyze the emission through the Carbon Adsorption System (CAU, 641-0000). The sampling point will be located at the CAU exit chimney (EP-641-0000).
- 2) The continuous monitoring equipment will be certified in accordance with the procedures established in 40 CFR part 60, Appendix B, Performance Specification 8, Performance Specifications for Volatile Organic Compound Continuous Emission Monitoring Systems in Stationary Sources; 40 CFR 63.8, General Provisions, Monitoring Requirements; 40 CFR part 63, subpart GGG, National Emission Standards for Hazardous Air Pollutants for Pharmaceutical Production.
- 3) The procedures listed in Table 1 will be used for the certification tests.

Table 1: Certification Procedures for CEMS

Pollutant	Procedures for Certification Tests
THC (VOC)	<ul style="list-style-type: none"> • 40 CFR part 60, Appendix B, Performance Specification 8, Section 13, CEMS Relative Accuracy • 40 CFR part 60, Appendix B, Performance Specification 8, Section 13, CEMS Calibration Drift • 40 CFR part 60, Appendix A, Method 25A, Total Organic Gaseous Concentration Determination using an Flame Ionization Analyzer • 40 CFR part 63.8(e)(3)(i), General Provisions, Monitoring Requirements • 40 CFR part 60, Appendix F, Quality Assurance Procedures

- 4) Relative Accuracy (RA) tests will be conducted through direct comparison of permanently installed CEMS and results obtained using EPA reference methods. The results will be compared with the data obtained and the relative accuracy will be determined.
- 5) The compliance determination will be carried out by averaging the measured concentration emissions as methane at the carbon adsorption unit exit, calculated as equivalent HAP pounds during a 24-hour day (as described in Attachment C) and adding said emissions to those of the preceding 364 days.
- 6) Concentration measurements will be averaged every 15 minutes, every hour and for every 24-hour period.

***Appendix IV - Emission Sources with their respective control equipment**

1. Control Unit – Carbon Adsorption System

Emission Point	Area	Located	Digits	Equipment Description	Capacity (Gallons)
EP-641-0000	Netilmicin Plant		531	K/O Condenser	N/A
	Netilmicin Plant		531	Vacuum Pump	N/A
	Netilmicin Plant		531-3230	Hazardous Waste Tank (vault)	500
	Netilmicin Plant		531-3265	Distillate Receiver	300
	Netilmicin Plant		531-3802	Concent. Condens.	N/A
	Netilmicin Plant		531-3803	Concent. Jet Condens.	N/A
	Netilmicin Plant		531-3818	Concent. Jet Condens.	N/A
	Netilmicin Plant		531-3819	Concent. Jet Condens.	N/A
	Netilmicin Plant		531-3839	R-489 Condenser	N/A
	Netilmicin Plant		531-3840	R-488 Condenser	N/A
	Steroids Plant	#1A Ester Intermediate	631-3258	Charge Tank	30
	Steroids Plant		631-3259	Organic Phase Tank	200
	Steroids Plant		631-3260	Aqueous Phase Tank	200
	Steroids Plant		631-3271	Glass Separator	100
	Steroids Plant		631-3294	Distillate Receiver Tank	300
	Steroids Plant		631-3320	Reactor	200
	Steroids Plant		631-3509	Tray Dryer	N/A
	Steroids Plant		631-3848	1st Jet Condenser	N/A
	Steroids Plant		631-3849	2nd Jet Condenser	N/A
	Steroids Plant		631-3857	After Jet Condenser	N/A
Steroids Plant		631-3861	Reactor R-205's Condenser	N/A	

Control Unit- Carbon Adsorption System (Continuation)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-641-0000	Steroids Plant	#1B Ester Intermediate	631-3252	Filtrate Receiver	500
	Steroids Plant		631-3253	Hot Well	80
	Steroids Plant		631-3254	Distillate Receiver	100
	Steroids Plant		631-3281	Level Tank	50
	Steroids Plant		631-3295	Organic Phase Receiver	200
	Steroids Plant		631-3296	Glass Separator	26
	Steroids Plant		631-3297	Feed Tank	30
	Steroids Plant		631-3298	Aqueous Phase Receiver	200
	Steroids Plant		631-3319	Reactor	100
	Steroids Plant		631-3324	Reactor	50
	Steroids Plant		631-3325	Precipitator	750
	Steroids Plant		631-3326	Reactor	200
	Steroids Plant		631-3616	Centrifuge	N/A
	Steroids Plant		631-3847	Reactor R-207's Condenser	N/A
	Steroids Plant		631-3889	Reactor R-206's Condenser	N/A
	Steroids Plant		631-3890	R-226's Graphite Condenser	N/A
	Steroids Plant	#1B Ester Intermediate	N/A	Charging Station (Hood)	N/A
	Steroids Plant		631-3255	Distillate Receiver	100
	Steroids Plant	#2 Ester Finishing	631-3256	Filtrate Receiver	200
	Steroids Plant		631-3257	Hot Well	80
Steroids Plant		631-3321	Reactor	100	

Control Unit- Carbon Adsorption System (Continuation)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP 641-000	Steroids Plant		631-3322	Crystallizer	200
	Steroids Plant		631-3510	Dryer	N/A
	Steroids Plant		631-3617	Sparkler Filter	N/A
	Steroids Plant		631-3618	Pressure Filter	N/A
	Steroids Plant		631-3851	Crystallizer's Jet Condenser	N/A
	Steroids Plant		631-3853	2nd Stage Dryer's Jet Condenser	N/A
	Steroids Plant		631-3854	3rd Stage Dryer's Jet Condenser	N/A
	Steroids Plant		631-3855	Reactor Condenser	N/A
	Steroids Plant		631-3856	Crystallizer Condenser	N/A
	Steroids Plant	#2 Ester Intermediate	631-2301	Silica Column	N/A
	Steroids Plant		631-3214	Solvent Receiver	50
	Steroids Plant		631-3239	Feed Tank	30
	Steroids Plant		631-3240	Hot Well (located in Ester 3 Bay)	50
	Steroids Plant		631-3241	Aqueous Phase Receiver	500
	Steroids Plant		631-3247	Organic Phase Receiver	200
	Steroids Plant		631-3248	Reflux Receiver	100
	Steroids Plant		631-3250	Feed Tank	15
	Steroids Plant		631-3315	Reactor	100
	Steroids Plant		631-3316	Crystallizer	200
	Steroids Plant		631-3328	Filtrate Receiver Holding Tank	500

Control Unit- Carbon Adsorption System (Continuation)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-641-0000	Steroids Plant		631-3334	Filtrate Receiver Tank	100
	Steroids Plant		631-3645	Rosenmont Dryer	N/A
	Steroids Plant		631-3837	R-220's Precipitator Condenser	N/A
	Steroids Plant		631-3838	1st Stage Condenser	N/A
	Steroids Plant		631-3875	Jet Condenser	N/A
	Steroids Plant		631-3881	R-221's Condenser	N/A
	Steroids Plant		N/A	Glass Separator	13 Liters
	Steroids Plant		N/A	Portable Pressure Nutshe Filter	---
	Steroids Plant	3 Ester Finishing Bay	631-3102	Feed Tank	30
	Steroids Plant		631-3103	Separator Bottle	50 L
	Steroids Plant		631-3242	Dioxane Feed Tank	50
	Steroids Plant		631-3243	Distillate Receiver	50
	Steroids Plant		631-3244	Hot Well	80
	Steroids Plant		631-3280	Hexane Feed Tank	60
	Steroids Plant		631-3283	Wash Tank	50
	Steroids Plant	3 Ester Finishing Bay	631-3317	Reactor	50
	Steroids Plant		631-3318	Crystallizer	90
	Steroids Plant		631-3340	Aqueous Phase Hold Tank	200
	Steroids Plant		631-3341	Organic Phase Hold Tank	200
	Steroids Plant		631-3507	Tray Dryer	N/A
Steroids Plant		631-3614	Sparkler Filter	N/A	

Control Unit Carbon Adsorption System (Continuation)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-641-000	Steroids Plant		631-3615	Centrifuge	N/A
	Steroids Plant		631-3840	Crystallizer's Jet Condenser	N/A
	Steroids Plant		631-3843	Dryer's 1st Jet	N/A
	Steroids Plant		631-3844	Condenser	N/A
	Steroids Plant		631-3845	Crystallizer's Condenser	N/A
	Steroids Plant		631-3882	R-223's Condenser	N/A
	Steroids Plant		631-4401	Micronizer	N/A
	Steroids Plant	DOD - BB Bay	N/A	Dust Hood (Tray)	N/A
	Steroids Plant		631-3801	Evaporator's Condenser	N/A
	Steroids Plant		631-3805	Reactor R-213's Condenser	N/A
	Steroids Plant		631-3874	Evaporator Jet Condenser	N/A
	Steroids Plant		631-3200	Feed Tank	100
	Steroids Plant		631-3203	Concentrate Receiver	400
	Steroids Plant		631-3204	Evaporator Distillate Receiver	200
	Steroids Plant		631-3206	Hot Well Tank	50
	Steroids Plant		631-3207	Distillate Receiver Tank	200
	Steroids Plant		631-3208	Filtrate Receiver	165
	Steroids Plant		631-3221	Gas Separator	500
	Steroids Plant		631-3270	Hot Well	80
	Steroids Plant		631-3279	Centrifuge's Wash Tank	35

Control Unit- Carbon Adsorption System (Continuation)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-641-0000	Steroids Plant		631-3289	Concentrate Receiver	500
	Steroids Plant		631-3300	Reactor	200
	Steroids Plant		631-3500	Rotary Vacuum Dryer	N/A
	Steroids Plant		631-3602	Centrifuge	N/A
	Steroids Plant		631-3625	Condensate Collection Tank	300
	Steroids Plant		631-3800	Extract Evaporator	2600
	Steroids Plant		631-3808	Dryer's Jet Condenser	N/A
	Steroids Plant		631-3871	Vent Condenser	N/A
	Steroids Plant	DOH -C Bay	631-3209	Distillate Receiver	20
	Steroids Plant		631-3305	Reactor	200
	Steroids Plant		631-3818	Reflux Condenser	N/A
	Steroids Plant		631-3223	Filtrate Receiver	1500
	Steroids Plant		631-3274	Level Tank	50
	Steroids Plant		631-3288	Reactor (Cryogenic)	200
	Steroids Plant		631-3306	Precipitator	1000
	Steroids Plant	DOH -C Bay	631-3322	Caustic Soda Feed Bottle	8
	Steroids Plant		631-3336	Distillate Receiver	200
	Steroids Plant		631-3503	Dryer	N/A
	Steroids Plant		631-3606	Centrifuge	N/A
	Steroids Plant	DOH-BB Bay	631-321	Solvent Feed Tank	110
	Steroids Plant		631-3217	Reflux Receiver	300
Steroids Plant		631-3218	Centrifuge's Wash Tank	10	

Control Unit- Carbon Adsorption System (Continuation)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP 641-000	Steroids Plant		631-3219	Filtrate Receiver	200
	Steroids Plant		631-3286	Glass Separator	26
	Steroids Plant		631-3303	Reactor	300
	Steroids Plant		631-3304	Crystallizer	300
	Steroids Plant		631-3502	Rotary Vacuum Dryer	N/A
	Steroids Plant		631-3604	Portable Sparkler Filter	N/A
	Steroids Plant		631-3605	Centrifuge	N/A
	Steroids Plant		631-3811	R-203's Reflux Condenser	N/A
	Steroids Plant		631-3813	Jet Condenser	N/A
	Steroids Plant		631-3817	Reflux Condenser	N/A
	Steroids Plant	DOH-F Bay	631-3001	Caustic Mixing Tank	25
	Steroids Plant		631-3202	Organic Layer Holding Tank	150
	Steroids Plant		631-3224	Feed Tank	20
	Steroids Plant		631-3227	Reflux Receiver	300
	Steroids Plant		631-3228	Filtrate Receiver	300
	Steroids Plant		631-3229	Hot Well	80
	Steroids Plant		631-3275	Level Tank	50
	Steroids Plant		631-3309	Reactor	300
	Steroids Plant		631-3504	Fluid Bed Dryer	N/A
	Steroids Plant		631-3608	Centrifuge	N/A
Steroids Plant		631-3822	Reflux Condenser	N/A	
Steroids Plant		631-3823	Vac. Pump Condenser	N/A	

Control Unit- Carbon Adsorption System (Continuation)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-641-0000	Steroids Plant		N/A*	Portable Hood3	N/A
	Steroids Plant		N/A*	Spill Control Tank	250
	Steroids Plant	DOH-FF Bay	631-3003	Distillate Receiver Tank	350
	Steroids Plant		631-3002	Wash Tank	25
	Steroids Plant		631-3230	Filtrate Receiver	100
	Steroids Plant		631-3285	House Vacuum K/O Tank	300
	Steroids Plant		631-3299	Recovered MeCl Tank	300
	Steroids Plant		631-3310	Reactor	350
	Steroids Plant		631-3505	Rotary Vacuum Dryer	N/A
	Steroids Plant		631-3609	Centrifuge	N/A
	Steroids Plant		631-3828	Dryer's Jet Condenser	N/A
	Steroids Plant		631-3880	Condenser	N/A
	Steroids Plant	DOH-FF Bay	631-4009	DOH-F Vacuum Pump	N/A
	Steroids Plant		N/A	Glass Separation Bottle	---
	Steroids Plant	DOH-HH Bay	631-3234	Distillate Receiver Tank	500
	Steroids Plant		631-3235	Reflux Receiver	500
	Steroids Plant		631-3236	Filtrate Receiver	150
	Steroids Plant		631-3237	Water Layer Hold Tank	50
	Steroids Plant		631-3238	Hot Well	50
	Steroids Plant		631-3278	Centrifuge's Wash Tank	35
Steroids Plant		631-3312	Reactor	200	

Control Unit- (Carbon Adsorption System Continuation)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-641-000	Steroids Plant		631-3313	Crystallizer	200
	Steroids Plant		631-3506	Tumble Rotary Dryer	N/A
	Steroids Plant		631-3611	Sparkler Filter	---
	Steroids Plant		631-3612	Centrifuge	N/A
	Steroids Plant		631-3830	Reflux Condenser	N/A
	Steroids Plant		631-3831	Crystallizer Condenser	N/A
	Steroids Plant		631-3835	Jet Condenser	N/A
	Steroids Plant		N/A	Glass Separator	8
	Netilmicin Plant	Organic Room	531-3200	Charge Tank	40
	Netilmicin Plant		531-3235	Distillate Receiver	50
	Netilmicin Plant		531-3236	Distillate Receiver	50
	Netilmicin Plant		531-3301	Concentrator	300
	Netilmicin Plant		531-3302	Reactor	100
	Netilmicin Plant		531-3303	Reactor	350
	Netilmicin Plant		531-3306	Reactor	350
	Steroids Plant	Other Process Vessels	631-3201	Process Waste Tank	1000
	Steroids Plant		631-3205	Hazardous Waste Tank	500
	Steroids Plant		N/A	Nutsche Filter	N/A
	Steroids Plant		N/A	Nutsche Filter	N/A
	Steroids Plant		N/A	Nutsche Filter	N/A
	Steroids Extraction Area	Steroids Extraction Area	621-3201	Stripped Spent Broth Tank	15000
	Steroids Extraction Area		621-3202	New Chloroform Tank	12500

Control Unit- Carbon Adsorption System (Continuation)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-641-0000	Steroids Extraction Area		621-3203	Recovered Chloroform Tank	12500
	Steroids Extraction Area		621-3204	Extract Chloroform Tank	20
	Steroids Extraction Area		621-3218	Decanter	50
	Steroids Extraction Area		621-3400	Chloroform Stripper	N/A
	Steroids Extraction Area		621-3400	Karr Column	N/A
	Steroids Extraction Area		621-3801	Stripper Condenser	N/A
	Steroids Extraction Area		621-3802	Stripper Vent Condenser	N/A
	624	Steroids Extraction Area	N/A	Emulsion (Decanter) Tank	1500
	621	Steroids Tank Farm	621-3211	Methanol Tank	12000
	441	Utilities	441-3010	CDU Feed Tank	1000
	441	Utilities	441-3200	Hazardous Waste Tank	24000
	441	Utilities	441-3201	EG Waste Tank	24000
	441	Utilities	441-3203	MeCl Waste Tank	5000
	441	Utilities	441-3204	MeCl Waste Tank	5000
	441	Utilities	441-3207	Holding Tank	5000
	441	Utilities	441-3208	MACT Waste Tank	25000
	441	Utilities	441-3211	CDU Tank 1	317
	441	Utilities	441-3212	CDU Tank 2	317

2. Control Unit – Scrubber (631-3401)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-631-3401	Steroids Plant	DOH-H Bay	631-3323	Reactor	50
	Steroids Plant	DOH-H Bay	631-3311	Precipitator	300
	Steroids Plant	DOH-H Bay	631-3233	Mother Liquor Receiver Tank	400
EP-631-3401	Steroids Plant	DOH-H Bay	631-3610A	Centrifuge	N/A
	Steroids Plant	DOH-H Bay	631-3232	Level Tank	50
	Steroids Plant	DOH-H Bay	N/A	Glass Separator	---
	Steroids Plant	DOH-H Bay	N/A	Rosedale Filter	---

3. Control Unit – Scrubber 631-3402

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-631-3402	Steroids Plant	DOH-E Bay	631-3879	Reactor's Condenser	N/A
	Steroids Plant		631-3308	Precipitator	1500
	Steroids Plant		631-3307	Reactor	200
	Steroids Plant		631-3226	Feed Tank	25
	Steroids Plant		N/A	Unloading Hood	---
	Steroids Plant		N/A	Charge Station	---
	Steroids Plant		631-3225	Mother Liquor Holding Tank	1500

Control Unit – Scrubber- 631-3402 (Continuation)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-631-3402	Steroids Plant		631-3607	Centrifuge	N/A
	Steroids Plant		631-3276	Level Tank	50

4. Control Unit – Scrubber (631-3291, process BLO-A, ALO-B, ALO-C, ALO-E, DOH-E, DOH-EN, DOH-J, DOH-JN, DOB-J, Y DOB-JN) or Carbon Adsorption System the (641-0000, process ALO-A, BLO-B, BLO-C, and MMF-B)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-641-0000 or EP-631-3291	Steroids Plant	DOH - AB Bay	631 -3804	R-216's Reactor Reflux Condenser	N/A
	Steroids Plant	DOH - AB Bay	631 - 3291	DOH-AB Scrubber	---
	Steroids Plant	DOH - AB Bay	631 - 3301	Reactor	200
	Steroids Plant	DOH - AB Bay	631-3212	Feed Tank	20
	Steroids Plant	DOH - AB Bay	631-3302	Precipitator	1000
	Steroids Plant	DOH - AB Bay	631-3213	Filtrate Receiver Tank	1500
	Steroids Plant	DOH - AB Bay	631-3603*	Centrifuge	N/A
	Steroids Plant	DOH - AB Bay	631-3273*	Level Tank	36647
	Steroids Plant	DOH - AB Bay	631-3501*	Fluid Bed Dryer	N/A
	Steroids Plant	DOH - AB Bay	N/A*	Portable Extractor2	---

5. Control Unit - "Conservation Vents" (see note)

Emission Point	Area	Localized	Digits	Capacity (Gallons)	Capacity (Gallons)
EP-632-3302	Steroids Fermentation Plant	Steroids Fermentation Plant	632-3302	Fermented (see note)	10000
EP-632-3303	Steroids Fermentation Plant	Steroids Fermentation Plant	632-3303	Charge Tank from methanol	200

Note: Vents through a box scrubber whose main purpose is to condense water vapor.

6. Control Unit - None (insignificant emissions).

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-531-4000	531	Netilmicin Plant	531-4000	Vacuum Pump	N/A
EP-531-4001	531	Netilmicin Plant	531-4001	Vacuum Pump	N/A

7. Boilers Control Equipment –None

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-343-5101	343 Area	Utilities	343-5101	Boiler # 1	Fuel Oil @ 270 gals/Hr
EP-343-5102	343 Area	Utilities	343-5102	Boiler # 2	Fuel Oil @ 270 gals/Hr
EP-343-5103	343 Area	Utilities	343-5103	Boiler # 3	Fuel Oil @ 270 gals/Hr

8. Shredder Crusher – Dust Collector (99.94% de efficiency)

Emission Point	Area	Localized	Digits	Equipment Description	Capacity (Gallons)
EP-263-0004	263	Pharmacia	263-0004	Shredder Crusher of cardboard, plastic and paper	1,150 lbs/hr

Attachment A of Appendix IV: Equipment Description for control HAP's Emissions

Type of Equipment	Manufacturer / model	Equipment Minimum Efficiency
Carbon Adsorption Unit 641-0000	VARA International / Barnebey & Sutcliffe	A CEM will be used to consider the emissions of pollutant agents type HAP in monthly base. The average of the concentrations will be used before and after the period in which the CEM is out of service to consider the corresponding losses during that period.
Scrubber (Packed scrubber) DOH-H 631 -3401	The W.W. Sly Mfg. Co./JWO7249	90% ⁴
Scrubber (Packed scrubber) DOH-E 631-3402	The W.W. Sly Mfg. Co./JWO7249	
Scrubber (Packed scrubber) DOH-AB 631-3291	The W.W. Sly Mfg. Co./JWO7249	

⁴ Actual efficiency with the purpose of emission estimates.

Attachment B of Appendix IV: Insignificant Activities Specifications

1. Storage Tanks with capacity of 10,000 gallons

Emission Point	Area	Localized	Equipment Description	Capacity (Gallons)	Control Equipment	Basis For Exemption
EP-621-3215	Steroids Tank Farm	Steroids Tank Farm	Dimethylformamide Tank	7500	Cons. Vent	Appendix B.3.ii(N) of the RCAP
EP-621-3225	Steroids Tank Farm	Steroids Tank Farm	Methylene Chloride Tank	7500	Pressure Tank	

Note: Vents through box scrubber whose main purpose is to condense water vapor.

2. Emergency Generators

Emission Point	Area	Localized	Capacity		Basis For Exemption
			(Gallons)	(HP)	
EP-131-6501	131	Utilities	Diesel Fuel @ 58.4 Gal/Hr	1073 HP	Appendix B.3.ii(O) of the RCAP
EP-142-6500	142	Building QC	Diesel Fuel @ 19 Gal/Hr	335 HP	
EP-261-6500	261	Pharmacy	Diesel Fuel @ 30 Gal/Hr	400 HP	
EP-261-6501	261	Pharmacy	Diesel Fuel @ 20 Gal/Hr	268 HP	
EP-262-6500	262	Pharmacy	Diesel Fuel @ 11.6 Gal/Hr	201 HP	
EP-343-6500	343	Utilities	Diesel Fuel @ 35 Gal/Hr	600 HP	
EP-343-6501	343	Utilities	Diesel Fuel @ 35 Gal/Hr	600 HP	
EP-343-6502	343	Utilities	Diesel Fuel @ 35 Gal/Hr	600 HP	
EP-343-6503	343	Utilities	Diesel Fuel @ 35 Gal/Hr	600 HP	
EP-443-6500	443	Utilities	Diesel Fuel @ 40 Gal/Hr	670 HP	
EP-443-6501	443	Utilities	Diesel Fuel @ 40 Gal/Hr	670 HP	
EP-533-6500	533	Utilities	Diesel Fuel @ 40 Gal/Hr	670 HP	
EP-631-6500	631	Steroids	Diesel Fuel @ 50 Gal/Hr	1000 HP	
EP-Portable	543	Portable Fire Pump Area 543	Diesel Fuel @ 11.9 Gal/Hr	301.7 HP (225 KW)	
EP-Portable	261	Portable for Pharmaceutical Plant Area 261	Diesel Fuel @ 18.6 Gal/Hr	469.4 HP (350 KW)	

3. Fire Pump for Emergency

Emission Point	Area	Localized	Digits	Capacity (Gallons)	Capacity (hp)	Basis for Exemption
EP-343-3906	343	Utilities	343-3906	Diesel @ 9 gals/Hr	170	Appendix B.3.(VI) of the RCAP
EP-343-3907	343	Utilities	343-3907	Diesel @ 9 gals/Hr	170	