

State of New Jersey

PHILIP D. MURPHY Governor

TAHESHA L. WAY Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION

AIR, ENERGY AND MATERIALS SUSTAINABILITY Division of Air Quality and Radiation Protection Bureau of Stationary Sources 401 E. State Street, 2nd floor, P.O. Box 420, Mail Code 401-02 Trenton, NJ 08625-0420 SHAWN M. LATOURETTE Commissioner

Air Pollution Control Operating Permit Significant Modification

Permit Activity Number: BOP230002

Program Interest Number: 56153

| Mailing Address | Plant Location |
|---------------------|-------------------|
| DAN MARKOWITZ | VERANOVA, LP |
| SITE DIRECTOR | 2003 Nolte Dr |
| VERANOVA LP | West Deptford Twp |
| 2003 NOLTE DR | Gloucester County |
| Paulsboro, NJ 08066 | |

Initial Operating Permit Approval Date:

Operating Permit Approval Date:

Operating Permit Expiration Date:

June 11, 2002 Pre-draft June 10, 2017 (operating under application shield)

AUTHORITY AND APPLICABILITY

The New Jersey Department of Environmental Protection (Department) approves and issues this Air Pollution Control Operating Permit under the authority of Chapter 106, P.L. 1967 (N.J.S.A. 26:2C-9.2). This permit is issued in accordance with the air pollution control permit provisions promulgated at Title V of the Federal Clean Air Act, 40 CFR 70, Air Pollution Control Act codified at N.J.S.A. 26:2C and New Jersey State regulations promulgated at N.J.A.C. 7:27-22.

The Department approves this operating permit based on the evaluation of the certified information provided in the permit application that all equipment and air pollution control devices regulated in this permit comply with all applicable State and Federal regulations. The facility shall be operated in accordance with the conditions of this permit. This operating permit supersedes any previous Air Pollution Control Operating Permits issued to this facility by the Department including any general operating permits, renewals, significant modifications, minor modifications, seven-day notice changes or administrative amendments to the permit.

Pursuant to N.J.A.C. 7:27-22.33, all preconstruction approvals are being incorporated in this operating permit.

Changes made through this permit activity are provided in the Reason for Application.

PERMIT SHIELD

This operating permit includes a permit shield, pursuant to the provisions of N.J.A.C. 7:27-22.17.

COMPLIANCE SCHEDULES

This operating permit does not include compliance schedules as part of the approved compliance plan.

COMPLIANCE CERTIFICATIONS AND DEVIATION REPORTS

The permittee shall submit to the Department and to United States Environmental Protection Agency (US EPA) periodic compliance certifications, in accordance with N.J.A.C. 7:27-22.19. **The annual compliance certification** is due to the Department and EPA within 60 days after the end of each calendar year during which this permit was in effect. **Semi-annual deviation reports** relating to compliance testing and monitoring are due to the Department within 30 days after the end of the semi-annual period. The schedule and additional details for these submittals are available in Subject Item - FC, of the Facility Specific Requirements of this permit.

ACCESSING PERMITS

The facility's current approved operating permit and any previously issued permits (e.g. superseded, expired, or terminated) are available for download in PDF format at: <u>https://dep.nj.gov/boss</u>. After accessing the website, click on "Approved Operating Permits" listed under "Reports" and then type in the Program Interest (PI) Number as instructed on the screen. If needed, the RADIUS file for your permit, containing Facility Specific Requirements (Compliance Plan), Inventories and Compliance Schedules can be obtained by contacting the Helpline number given below. RADIUS software, instructions, and help are available at the Department's website at <u>https://dep.nj.gov/boss</u>.

HELPLINE

The Operating Permit Helpline is available for any questions at (609) 633-8248 from 9:00 AM to 4:00 PM Monday to Friday.

RENEWING YOUR OPERATING PERMIT AND APPLICATION SHIELD

The permittee is responsible for submitting a timely and administratively complete operating permit renewal application pursuant to N.J.A.C. 7:27-22.30. Only applications which are timely and administratively complete are eligible for an application shield. The details on the contents of the renewal application, submittal schedule, and application shield are available in Section B - General Provisions and Authorities of this permit.

COMPLIANCE ASSURANCE MONITORING

Facilities that are subject to Compliance Assurance Monitoring (CAM), pursuant to 40 CFR 64, shall develop a CAM Plan for modified equipment as well as existing sources. The rule and guidance on how to prepare a CAM Plan can be found at EPA's website: <u>https://www.epa.gov/air-emissions-monitoring-knowledge-base/compliance-assurance-monitoring</u>. In addition, CAM Plans must be included as part of the permit renewal application. Facilities that do not submit a CAM Plan may have their permit applications denied, pursuant to N.J.A.C. 7:27-22.3.

ADMINISTRATIVE HEARING REQUEST

If, in your judgment, the Department is imposing any unreasonable condition of approval, you may contest the Department's decision and request an adjudicatory hearing pursuant to N.J.S.A. 52:14B-1 et seq. and N.J.A.C. 7:27-22.32(a). All requests for an adjudicatory hearing must be received in writing by the Department within 20 calendar days of the date you receive this letter. The request must contain the information specified in N.J.A.C. 7:27-1.32 and the information on the <u>NJ04 - Administrative Hearing Request Checklist and Tracking Form</u> available at <u>https://dep.nj.gov/wp-content/uploads/boss/applications-and-forms/administrative-hearing-request-checklist-and-tracking-form.pdf</u>.

If you have any questions regarding this permit approval, please call Hanin Nashif at (609) 940-5481.

Approved by:

Joel Leon

Enclosure

CC: Suilin Chan, United States Environmental Protection Agency, Region 2

Facility Name: VERANOVA, LP Program Interest Number: 56153 Permit Activity Number: BOP230002

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Section A

Facility Name: VERANOVA, LP Program Interest Number: 56153 Permit Activity Number: BOP230002

POLLUTANT EMISSIONS SUMMARY

Table 1: Total emissions from all Significant Source Operations¹ at the facility.

| F | Facility's Potential Emissions from all Significant Source Operations (tons per year) | | | | | | | | | |
|---------------------------|---|-----------------|------|--------|----------------|-----------------------------|---|----|------------------|-----------|
| Source Categories | VOC (total) | NO _x | СО | SO_2 | TSP (total) | PM ₁₀ (total) | PM _{2.5} ² (total) | Pb | HAPs* (total) | CO_2e^3 |
| Emission Units Summary | 1.6 | 3.49 | 0.64 | 0.92 | 0.20 | 0.20 | NA | NA | NA | |
| Batch Process Summary | 23.4 | 8.5 | 43.0 | NA | 2.66 | 1.65 | NA | NA | 11.4 | |
| Group Summary | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| Total Emissions | 25.0 | 12.0 | 43.6 | 0.92 | 2.86 | 1.85 | NA | NA | 11.4 | 2,000 |

Table 2: Estimate of total emissions from all Insignificant Source Operations¹ and total emissions from Non-Source Fugitives at the facility.

| Emissions from | Emissions from all Insignificant Source Operations and Non-Source Fugitive Emissions (tons per year) | | | | | | | | |
|---------------------------------------|--|-----------------|----|--------|----------------|-----------------------------|---|----|-----------------|
| Source Categories | VOC (total) | NO _x | СО | SO_2 | TSP (total) | PM ₁₀ (total) | PM _{2.5} ² (total) | Pb | HAPs (total) |
| Insignificant Source Operations | 3.22 | NA | NA | NA | 6.25 | 6.25 | NA | NA | NA |
| Non-Source Fugitive Emissions | 0.25 | NA | NA | NA | 0.43 | 0.43 | NA | NA | 0.25 |

VOC: Volatile Organic Compounds NOx: Nitrogen Oxides CO: Carbon Monoxide SO₂: Sulfur Dioxide N/A: Indicates the pollutant is not emitt

TSP: Total Suspended Particulates Other: Any other air contaminant regulated under the Federal CAA PM₁₀: Particulates under 10 microns PM_{2.5}: Particulates under 2.5 microns Pb: Lead HAPs: Hazardous Air Pollutants

CO₂e: Carbon Dioxide equivalent

N/A: Indicates the pollutant is not emitted or is emitted below the reporting threshold specified in N.J.A.C. 7:27-22, Appendix, Table A and N.J.A.C. 7:27-17.9(a).

*Emissions of individual HAPs are provided in Table 3 on the next page. Emissions of "Other" air contaminants are provided in Table 4 on the next page.

¹ Significant Source Operations and Insignificant Source Operations are defined at N.J.A.C. 7:27-22.1.

 $^{^{2}}$ PM_{2.5} has been included in air permitting rules as of December 9, 2017. Consequently, PM_{2.5} totals in this section may not be up to date. The Department is in the process of updating these limits during each permit modification, and the entire permit will be updated at the time of permit renewal.

³ Total CO₂e emissions for the facility.

Section A

Facility Name: VERANOVA, LP Program Interest Number: 56153 Permit Activity Number: BOP230002

POLLUTANT EMISSIONS SUMMARY

Table 3: Summary of Hazardous Air Pollutants (HAP) Emissions from Significant Source Operations ⁴:

| НАР | TPY |
|---------------------------|-------|
| Acetonitrile | 8.0 |
| Dichloromethane | 3.39 |
| Chlorine | 0.03 |
| Dimethyl formamide (N,N-) | 8.0 |
| Formaldehyde | 0.025 |
| Ethylene Glycol Dimethyl | 8.0 |
| Hexane (n-) | 8.0 |
| Hydrogen chloride | 0.75 |
| Methyl Alcohol | 8.0 |
| Methyl ethyl ketone | 8.0 |
| Methyl isobutyl ketone | 8.0 |
| Methyl tert-butyl ether | 8.0 |
| Toluene | 8.0 |
| Triethylamine | 8.0 |

Table 4: Summary of "Other" air contaminants emissions from Significant Source Operations:

| Other Air Conta | minant | TPY |
|-----------------|--------|-----|
| Chloroacetonitr | ile | 8.0 |
| Cyanamide | | 8.0 |
| 4-Cyanophenol | | 8.0 |
| | | |
| | | |
| | | |

⁴ Do not sum the values below for the purpose of establishing a total HAP potential to emit. See previous page for the allowable total HAP emissions.

Section B

Facility Name: VERANOVA, LP Program Interest Number: 56153 Permit Activity Number: BOP230002

GENERAL PROVISIONS AND AUTHORITIES

- 1. No permittee shall allow any air contaminant, including an air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in a quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or which would unreasonably interfere with the enjoyment of life or property. This shall not include an air contaminant that occurs only in areas over which the permittee has exclusive use or occupancy. Requirements relative only to nuisance situations, including odors, are not considered federally enforceable. [N.J.A.C. 7:27-22.16(g)8]
- 2. Any deviation from operating permit requirements which results in a release of air contaminants shall be reported to the Department as follows:
 - a. If the air contaminants are released in a quantity or concentration which poses a potential threat to public health, welfare or the environment or which might reasonably result in citizen complaints, the permittee shall report the release to the Department:
 - i. Immediately on the Department hotline at 1-(877) 927-6337, pursuant to N.J.S.A. 26:2C-19(e); and
 - ii. As part of the compliance certification required in N.J.A.C. 7:27-22.19(f). However, if the deviation is identified through source emissions testing, it shall be reported through the source emissions testing and monitoring procedures at N.J.A.C. 7:27-22.18(e)3; or
 - b. If the air contaminants are released in a quantity or concentration which poses no potential threat to public health, welfare or the environment and which will not likely result in citizen complaints, the permittee shall report the release to the Department as part of the compliance certification required in N.J.A.C. 7:27-22.19(f), except for deviations identified by source emissions testing reports, which shall be reported through the procedures at N.J.A.C. 7:27-22.18(e)3; or
 - c. If the air contaminants are released in a quantity or concentration which poses no potential threat to public health, welfare or the environment and which will not likely result in citizen complaints, and the permittee intends to assert the affirmative defense afforded by N.J.A.C. 7:27-22.16(l), the violation shall be reported by 5:00 PM of the second full calendar day following the occurrence, or of becoming aware of the occurrence, consistent with N.J.A.C. 7:27-22.16(l). [N.J.A.C. 7:27-22.19(g)]
- 3. The permittee shall comply with all conditions of the operating permit including the approved compliance plan. Any non-compliance with a permit condition constitutes a violation of the New Jersey Air Pollution Control Act N.J.S.A. 26:2C-1 et seq., or the CAA, 42 U.S.C. §7401 et seq., or both, and is grounds for enforcement action; for termination, revocation and reissuance, or for modification of the operating permit; or for denial of an application for a renewal of the operating permit. [N.J.A.C. 7:27-22.16(g)1]
- 4. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of its operating permit. [N.J.A.C. 7:27-22.16(g)2]
- 5. This operating permit may be modified, terminated, or revoked for cause by the EPA pursuant to 40 CFR 70.7(g) and revoked or reopened and modified for cause by the Department pursuant to N.J.A.C. 7:27-22.25. [N.J.A.C. 7:27-22.16(g)3]

- 6. The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this operating permit; or to determine compliance with the operating permit. [N.J.A.C. 7:27-22.16(g)4]
- 7. The filing of an application for a modification of an operating permit, or of a notice of planned changes or anticipated non-compliance, does not stay any operating permit condition. [N.J.A.C. 7:27-22.16(g)5]
- 8. The operating permit does not convey any property rights of any sort, or any exclusive privilege. [N.J.A.C. 7:27-22.16(g)6]
- 9. Upon request, the permittee shall furnish to the Department copies of records required by the operating permit to be kept. [N.J.A.C. 7:27-22.16(g)7]
- a. For emergencies (as defined at 40 CFR 70.6(g)(1)) that result in non-compliance with any promulgated federal technology-based standard such as NSPS, NESHAPS, or MACT, a federal affirmative defense is available, pursuant to 40 CFR 70. To assert a federal affirmative defense, the permittee must use the procedures set forth in 40 CFR 70. The affirmative defense provisions described below may not be applied to any situation that caused the Facility to exceed any federally delegated regulation, including but not limited to NSPS, NESHAP, or MACT.
 - b. For situations other than those covered above, an affirmative defense is available for a violation of a provision or condition of the operating permit only if:
 - i. The violation occurred as a result of an equipment malfunction, an equipment startup or shutdown, or during the performance of necessary equipment maintenance; and
 - ii. The affirmative defense is asserted and established as required by N.J.S.A. 26:2C-19.1 through 19.5 and any implementing rules. [N.J.A.C. 7:27-22.16(1)]
- 11. In the event of a challenge to any part of this operating permit, all other parts of the permit shall continue to be valid. [N.J.A.C. 7:27-22.16(f)]
- 12. Each owner and each operator of any facility, source operation, or activity to which this permit applies is responsible for ensuring compliance with all requirements of N.J.A.C. 7:27-22. If the owner and operator are separate persons, or if there is more than one owner or operator, each owner and each operator is jointly and severally liable for any fees due under N.J.A.C. 7:27-22, and for any penalties for violation of N.J.A.C. 7:27-22. [N.J.A.C. 7:27-22.3]
- 13. The permittee shall ensure that no air contaminant is emitted from any significant source operation at a rate, calculated as the potential to emit, that exceeds the applicable threshold for reporting emissions set forth in the Appendix to N.J.A.C. 7:27-22 or 7:27-17.9(a), unless emission of the air contaminant is authorized by this operating permit. [N.J.A.C. 7:27-22.3(c)]
- 14. Consistent with the provisions of N.J.A.C. 7:27-22.3(e), the permittee shall ensure that all requirements of this operating permit are met. In the event that there are multiple emission limitations, monitoring, recordkeeping, and/or reporting requirements for a given source operation, the facility must comply with all requirements, including the most stringent.
- 15. Consistent with the provisions of N.J.A.C. 7:27-22.3(s), Except as otherwise provided in this subchapter, the submittal of any information or application by a permittee including, but not limited to, an application or notice for any change to the operating permit, including any administrative amendment, any minor or significant modification, renewal, a notice of a seven-day notice change, a notice of past or anticipated noncompliance, does not stay any operating permit condition, nor relieve a permittee from the obligation to obtain other necessary permits and to comply with all applicable Federal, State, and local requirements.

- 16. Applicable requirements derived from an existing or terminated consent decree with EPA will not be changed without advance consultation by the Department with EPA. N.J.A.C. 7:27-22.3(uu).
- 17. Unless specifically exempted from permitting, temporary mobile equipment for short-term activities may be periodically used at major facilities, on site for up to 90 days if the requirements listed below, (a) through (h) are satisfied.
 - a. The permittee will ensure that the temporary mobile equipment will not be installed permanently or used permanently on site.
 - b. The permittee will ensure that the temporary mobile equipment will not circumvent any State or Federal rules and regulations, even for a short period of time, and the subject equipment will comply with all applicable performance standards.
 - c. The permittee cannot use temporary mobile equipment unless the owner or operator of the subject equipment has obtained and maintains an approved Air Pollution Control Permit, issued pursuant to N.J.A.C. 7:27-8 or 22, prior to bringing the temporary mobile equipment to operate at the major facility.
 - d. The permittee is responsible for ensuring the temporary mobile equipment's compliance with the terms and conditions specified in its approved Air Pollution Control Permit when the temporary mobile equipment operates on the property of the permittee.
 - e. The permittee will ensure that temporary mobile equipment utilized for short-term activities will not operate on site for more than a total of 90 days during any calendar year.
 - f. The permittee will keep on site a list of temporary mobile equipment being used at the facility with the start date, end date, and record of the emissions from all such equipment (amount and type of each air contaminant) no later than 30 days after the temporary mobile equipment completed its job in accordance with N.J.A.C. 7:27-22.19(i)3.
 - g. Emissions from the temporary mobile equipment must be included in the emission netting analysis required of the permittee by N.J.A.C. 7:27-18.7. This information is maintained on site by the permittee and provided to the Department upon request in accordance with existing applicable requirements in the FC Section of its Title V permit.
 - h. Where short-term activities (employing temporary mobile equipment) will reoccur on at least an annual basis, the permittee is required to include such activities (and the associated equipment) within one year of the first use, in its Title V permit through the appropriate modification procedures.
- 18. Consistent with the provisions of N.J.A.C. 7:27-22.9(c), the permittee shall use monitoring of operating parameters, where required by the compliance plan, as a surrogate for direct emissions testing or monitoring, to demonstrate compliance with applicable requirements.
- 19. The permittee is responsible for submitting timely and administratively complete operating permit applications:

Administrative Amendments [N.J.A.C. 7:27-22.20(c)]; Seven-Day Notice changes [N.J.A.C. 7:27-22.22(e)]; Minor Modifications [N.J.A.C. 7:27-22.23(e)]; Significant Modifications [N.J.A.C. 7:27-22.24(e)]; and Renewals [N.J.A.C. 7:27-22.30(b).

20. The operating permit renewal application consists of a RADIUS application and the application attachment available at the Department's website <u>https://dep.nj.gov/boss/applications-and-forms/</u> (Attachment to the RADIUS Operating Permit Renewal Application). Both the RADIUS application and the Application Attachment, along with any other supporting documents must be submitted using the Department's Portal

at: <u>https://njdeponline.com/</u>. The application is considered timely if it is received at least 12 months before the expiration date of the operating permit. To be deemed administratively complete, the renewal application shall include all information required by the application form for the renewal and the information required pursuant to N.J.A.C. 7:27-22.30(d). However, consistent with N.J.A.C. 7:27-22.30(c), the permittee is encouraged to submit the renewal application at least 15 months prior to expiration of the operating permit, so that any deficiencies can be identified and addressed to ensure that the application is administratively complete by the renewal deadline. Only renewal applications which are timely and administratively complete are eligible for an application shield.

- 21. For all source emissions testing performed at the facility, the phrase "worst case conditions without creating an unsafe condition" used in the enclosed compliance plan is consistent with EPA's National Stack Testing Guidance, dated April 27, 2009, where all source emission testing performed at the facility shall be under the representative (normal) conditions that:
 - i. Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and
 - ii. Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition.
- 22. Consistent with EPA's National Stack Testing Guidance and Technical Manual 1004, a facility may not stop an ongoing stack test because it would have failed the test unless the facility also ceases operation of the equipment in question to correct the issue. Stopping an ongoing stack test in these instances will be considered credible evidence of emissions non-compliance.
- 23. Each permittee shall maintain records of all source emissions testing or monitoring performed at the facility and required by the operating permit in accordance with N.J.A.C. 7:27-22.19. Records shall be maintained, for at least five years from the date of each sample, measurement, or report. Each permittee shall maintain all other records required by this operating permit for a period of five years from the date each record is made. At a minimum, source emission testing or monitoring records shall contain the information specified at N.J.A.C. 7:27-22.19(b). [N.J.A.C. 7:27-22.19(a) and N.J.A.C. 7:27-22.19(b)]
- 24. A Permittee may seek the approval of the Department for a delay in testing required pursuant to this permit by submitting a written request to the appropriate Regional Enforcement Office in accordance with N.J.A.C. 7:27-22.18(k). A Permittee may also seek advanced approval for a longer period for submittal of a source emissions test report required by the permit by submitting a request to the Department's Regional Enforcement Office in accordance with N.J.A.C. 7:27-22.18(k) and N.J.A.C. 7:27-22.19]

Section C

Facility Name: VERANOVA, LP Program Interest Number: 56153 Permit Activity Number: BOP230002

STATE-ONLY APPLICABLE REQUIREMENTS

N.J.A.C. 7:27-22.16(b)5 requires the Department to specifically designate as not being federally enforceable any permit conditions based only on applicable State requirements. The applicable State requirements to which this provision applies are listed in the table titled "State-Only Applicable Requirements."

STATE-ONLY APPLICABLE REQUIREMENTS

The following applicable requirements are not federally enforceable:

| SECTION | SUBJECT ITEM | ITEM # | <u>REF. #</u> |
|----------------|--------------|--------|---------------|
| В | | 1 | |
| В | | 10b | |
| D | FC | | 3 |
| D | FC | | 9 |

Section D

Facility Name: VERANOVA, LP Program Interest Number: 56153 Permit Activity Number: BOP230002

FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES

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| Facility | <u>y (FC):</u> | | |
| | FC | | 1 |
| <u>Non-Sc</u> | ource Fugitive Em | issions (FG): | |
| | FG NJID | FG Description | |
| | FG29 | Pharmaceutical Plant Leaks from Valves, Pumps, Connectors, etc. | 7 |
| <u>Insigni</u> | ficant Sources (IS | | |
| | IS NJID | IS Description | |
| | IS460001 | Jet Mills (<= 50 pounds per hour) | 30 |
| | IS460003 | Local Pick-up Points (<= 50 pounds per hour) | 31 |
| Groups | <u>s (GR):</u> | | |

| GR NJID | GR Designation | GR Description | |
|---------|----------------|---|----|
| GR29 | Batch&pilot | MACT Subpart GGG requirements | 32 |
| GR30 | Tanks & Batc | MACT Subpart GGG requirements common to | 43 |
| | | storage tanks & batch processes | |

Batch Processes (BP)

| BP NJID | BP Designation | BP Description | |
|----------------|-----------------------|--|----|
| BP29 | Batch Manu. | Batch Manufacturing of Pharmaceutical Products | 51 |

Emission Units (U):

| U NJID | U Designation | U Description | |
|--------|----------------------|--|----|
| U47 | EmGen2 | Emergency Generator Pharmaceutical Plant | 71 |
| U50 | EmGen3 | Emergency Generator Pharmaceutical Matl. | 79 |
| U51 | AirStrip | Air Stripper for Waste Water | 83 |
| U53 | Tank Farm | Storage Tanks | 85 |
| U54 | INTENSE FOOT | Intensification Footing System | 90 |

VERANOVA, LP (56153) BOP230002

New Jersey Department of Environmental Protection Reason for Application

Permit Being Modified

Permit Class: BOP Number: 230001

Description Changes made:

of Modifications:

- add four 7,500-gallon nominal capacity (each) aboveground fixed roof storage tanks T-1113, T-1114, T-1117, and T-1118 (E530005 - E530008) to the emission unit U53. Breathing and working loss emissions from the new ASTs will be routed to the facility's thermal oxidizer CD290601 and packed tower scrubber CD290102.

- add solvent transfer via tote filling from the four (4) new ASTs as E530009 to emission unit U53. Emissions from the tote filling will also be routed to CD290601 and CD290102 - established raw material solvent throughput limit for tote filling from the four (4) new ASTs at 444,444 gallons total per year.

- increase the combined VOC control efficiency for control devices CD290601/CD290102 from 93% to 95%.

- reduce the permitted raw material solvent throughput for raw material storage tanks T-1110, T-1111, T-1112, T-1113, T-1114, T-1117, and T-1118 (E530002 - E530008) to 1,000,000 gallons per year,

- reduce the permitted waste solvent throughput for waste solvent storage tank T-1115 (E530001) to 1,300,000 gallons per year, and

- reduce allowable VOC emissions for emission unit U53 from 0.65 TPY to 0.40 TPY.

Subject Item: FC

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|---|
| 1 | General Provisions: The permittee shall comply with all applicable provisions of N.J.A.C. 7:27-1. [N.J.A.C. 7:27-1] | None. | None. | None. |
| 2 | Control and Prohibition of Open Burning: The permittee is prohibited from open burning of rubbish, garbage, trade waste, buildings, structures, leaves, other plant life and salvage. Open burning of infested plant life or dangerous material may only be performed with a permit from the Department. [N.J.A.C. 7:27- 2] | None. | None. | Obtain an approved permit: Prior to occurrence of event (prior to open burning). [N.J.A.C. 7:27- 2] |
| 3 | Prohibition of Air Pollution: The permittee shall not emit into the outdoor atmosphere substances in quantities that result in air pollution as defined at N.J.A.C. 7:27-5.1. [N.J.A.C. 7:27-5] | None. | None. | None. |
| 4 | Prevention and Control of Air Pollution Control Emergencies: Any person responsible for the operation of a source of air contamination set forth in Table 1 of N.J.A.C. 7:27-12 is required to prepare a written Standby Plan, consistent with good industrial practice and safe operating procedures, and be prepared for reducing the emission of air contaminants during periods of an air pollution alert, warning, or emergency. Any person who operates a source not set forth in Table 1 of N.J.A.C. 7:27-12 is not required to prepare such a plan unless requested by the Department in writing. [N.J.A.C. 7:27-12] | None. | None. | Comply with the requirement: Upon occurrence of event. Upon proclamation by the Governor of an air pollution alert, warning, or emergency, the permittee shall put the Standby Plan into effect. In addition, the permittee shall ensure that all of the applicable emission reduction objectives of N.J.A.C. 7:27-12.4, Table I, II, and III are complied with whenever there is an air pollution alert, warning, or emergency. [N.J.A.C. 7:27-12] |
| 5 | Emission Offset Rules: The permittee shall comply with all applicable provisions of Emission Offset Rules. [N.J.A.C. 7:27-18] | None. | None. | None. |
| 6 | Emission Statements: The permittee shall comply with all the applicable provisions of N.J.A.C. 7:27-21. [N.J.A.C. 7:27-21] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|---|--|
| 7 | Compliance Certification: The permittee shall submit an annual Compliance Certification for each applicable requirement, pursuant to N.J.A.C. 7:27-22.19(f). [N.J.A.C. 7:27-22] | None. | None. | Submit an Annual Compliance Certification: Annually to the Department and to EPA within 60 days after the end of each calendar year during which this permit was in effect. The Compliance Certification shall be certified pursuant to N.J.A.C. 7:27-1.39 by the responsible official and submitted electronically through the NJDEP online web portal. The certification should be printed for submission to EPA. The NJDEP online web portal can be accessed at: http://www.state.nj.us/dep/online/. The Compliance Certification forms and instructions for submitting to EPA are available by selecting Documents and Forms and then Periodic Compliance Certification. [N.J.A.C. 7:27-22] |
| 8 | Prevention of Air Pollution from Consumer Products and Architectural Coatings: The permittee shall comply with all applicable provisions of N.J.A.C. 7:27-24 and [N.J.A.C. 7:27-23] | None. | None. | None. |
| 9 | Any operation of equipment which causes off-property effects, including odors, or which might reasonably result in citizen's complaints shall be reported to the Department to the extent required by the Air Pollution Control Act, N.J.S.A. 26:2C-19(e). [N.J.S.A. 26: 2C-19(e)] | Other: Observation of plant operations. [N.J.S.A. 26: 2C-19(e)]. | Other: Maintain a copy of all information submitted to the Department. [N.J.S.A. 26: 2C-19(e)]. | Notify by phone: Upon occurrence of event. A person who causes a release of air contaminants in a quantity or concentration which poses a potential threat to public health, welfare or the environment or which might reasonably result in citizen complaints shall immediately notify the Department. Such notification shall be made by calling the Environmental Action Hotline at (877) 927-6337. [N.J.S.A. 26: 2C-19(e)] |
| 10 | Prevention of Significant Deterioration: The permittee shall comply with all applicable provisions of Prevention of Significant Deterioration (PSD). [40 CFR 52.21] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|--|---|
| 11 | The permittee shall comply with all applicable provisions of National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Asbestos, Subpart M. [40 CFR 61] | Other: Comply with 40 CFR 61.145 and 61.150 when conducting any renovation or demolition activities at the facility. [40 CFR 61]. | Other: Comply with 40 CFR 61.153 when conducting any renovation or demolition activities at the facility. [40 CFR 61]. | Comply with the requirement: Upon occurrence of event. The permittee shall comply with 40 CFR 61.153 when conducting any renovation or demolition activities at the facility. [40 CFR 61] |
| 12 | Protection of Stratospheric Ozone:1) If the permittee manufactures, transforms, destroys, imports, or exports a Class I or Class II substance, the permittee is subject to all the requirements as specified at 40 CFR 82, Subpart A; 2) If the permittee performs a service on motor "fleet" vehicles when this service involves an ozone depleting substance refrigerant (or regulated substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified at 40 CFR 82, Subpart B. 3) The permittee shall comply with the standards for labeling of products containing or manufactured with ozone depleting substances pursuant to 40 CFR 82, Subpart E. 4). The permittee shall comply with the standards for recycling and emission reductions of Class I and Class II refrigerants or a regulated substitute substance during the service, maintenance, repair, and disposal of appliances pursuant to 40 CFR 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B. 5) The permittee shall be allowed to switch from any ozone depleting substance to any alternative that is listed in the Significant New Alternative Program (SNAP) promulgated pursuant to 40 CFR 82, Subpart G. [40 CFR 82] | Other: Comply with 40 CFR 82 Subparts A, B, E, F, and G. [40 CFR 82]. | Other: Comply with 40 CFR 82 Subparts A, B, E, F, and G. [40 CFR 82]. | Comply with the requirement: Upon occurrence of event. The permittee shall comply with 40 CFR 82 Subparts A, B, E, F, and G. [40 CFR 82] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|--|--|
| 13 | Deviation Reports: The permittee shall submit to the Department a certified six-month Deviation Report relating to testing and monitoring required by the operating permit. [N.J.A.C. 7:27-22.19(d)3], [N.J.A.C.7:27-22.19(e)], and [N.J.A.C. 7:27-22.19(c)] | None. | Other: The permittee shall maintain deviation reports for a period of five years from the date each report is submitted to the Department. [N.J.A.C.7:27-22.19(a)] and [N.J.A.C. 7:27-22.19(e)]. | Submit a report: As per the approved schedule. The six-month deviation reports for the period from January 1 through June 30 shall be submitted by July 30 of the same calendar year, and for the period from July 1 through December 31, shall be submitted by January 30 of the following calendar year. The annual compliance certification required by N.J.A.C.7:27-22.19(f) may also be considered as your six-month Deviation Report for the period from July 1 – December 31, if submitted by January 30 of the following calendar year. The reports shall be certified pursuant to N.J.A.C. 7:27-1.39 by the responsible official and submitted electronically through the NJDEP online web portal. The NJDEP online web portal can be accessed at: http://www.state.nj.us/dep/online/ . The Compliance Certification forms are available by selecting Documents and Forms and then Periodic Compliance Certification. [N.J.A.C. 7:27-22] |
| 14 | Used Oil Combustion: No person shall combust used oil except as authorized pursuant to N.J.A.C. 7:27-20. [N.J.A.C. 7:27-20.2] | None. | None. | Comply with the requirement: Prior to occurrence of event (prior to burning used oil) either register with the Department pursuant to N.J.A.C. 7:27-20.3 or obtain a permit issued by the Department pursuant to N.J.A.C. 7:27-8 or 7:27-22, whichever is applicable. [N.J.A.C. 7:27-20.2(d)] |
| 15 | Prevention of Accidental Releases: Facilities producing, processing, handling or storing a chemical, listed in the tables of 40 CFR Part 68.130, and present in a process in a quantity greater than the listed Threshold Quantity, shall comply with all applicable provisions of 40 CFR 68. [40 CFR 68] | Other: Comply with 40 CFR 68. [40 CFR 68]. | Other: Comply with 40 CFR 68. [40 CFR 68]. | Other (provide description): Other. Comply with 40 CFR 68 as described in the Applicable Requirement. [40 CFR 68] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|--|--|
| 16 | The Department and its authorized representatives shall have the right to enter and inspect any activity subject to N.J.A.C. 7:27-22, or portion thereof, pursuant to N.J.A.C. 7:27-1.31. [N.J.A.C. 7:27-22.16(g)9] | None. | None. | None. |
| 17 | The permittee shall pay fees to the Department pursuant to N.J.A.C. 7:27. [N.J.A.C. 7:27-22.16(g)10] | None. | None. | None. |
| 18 | Each permittee shall meet all requirements of the approved source emissions testing and monitoring protocol during the term of the operating permit. Whenever the permittee makes a replacement, modification, change or repair of a certified CEMS or COMS that may significantly affect the ability of the system to accurately measure or record data, the permittee must recertify the CEMS or COMS in accordance with Section V.B. and Appendix E of Technical Manual 1005. The permittee is responsible for any downtime associated with the replacement, modification, change or repair of the CEMS or COMS. [N.J.A.C. 7:27-22.18(j)] | None. | None. | Comply with the requirement: Upon occurrence of event. The permittee is responsible for contacting the Emission Measurement Section to determine the need for recertification and/or to initiate the recertification process. [N.J.A.C. 7:27-22.18(j)] |
| 19 | Each process monitor must be operated at all times when the associated process equipment is operating except during service outage time not to exceed 24 hours per calendar quarter. [N.J.A.C. 7:27-22.16(a)] | None. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee must keep a service log to document any outage. [N.J.A.C. 7:27-22.16(o)] | None. |
| 20 | Continuous recording for process monitors must be at a sufficient frequency and resolution to be able to document compliance or non-compliance in accordance with Technical Manual 1005 for CEMS (TM1005(B)(3). [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|------------------------------|
| 21 | Stack testing after permit expiration: If an operating permit has expired, the conditions of the operating permit, including the requirements for stack testing during the expired permit term, remain enforceable until the operating permit is reissued. [N.J.A.C. 7:27-22.30(j)] and [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

Subject Item: FG29 Pharmaceutical Plant Leaks from Valves, Pumps, Connectors, etc.

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|------------------------------|
| 1 | No person shall cause, suffer, allow or permit a regulated leak of any applicable VOC from any pressure device or any other component without moving parts, unless one of the following conditions is satisfied: 1) The person first attempts to repair the regulated leak, and completes the repair, as soon as practicable but not beyond the time allotted for each of those actions in Table 18A of N.J.A.C 7:27-16.18 2) The leak is an overpressure release discharge from a pressure relief device, for which the pressure relief device is designed, and the release is properly reported pursuant to any applicable law or rule; or 3) The leak is a discharge to an emergency device (such as a flare) that is designed to combust gases generated during process upsets or emergency events. [N.J.A.C. 7:27-16.18(c)] | None. | None. | None. |
| 2 | No person shall cause, suffer, allow or permit a regulated leak of any applicable VOC from any agitator or any other component with moving parts unless the person first attempts to repair the leak, and completes the repair, as soon as practicable but not beyond the time allotted for each of those actions in Table 18B of N.J.A.C. 7:27-16.18. [N.J.A.C. 7:27-16.18(d)] | None. | None. | None. |

FG29 Pharmaceutical Plant Leaks from Valves, Pumps, Connectors, etc.

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|---------------------------|--|
| 3 | Develop and implement a leak detection and repair program for pressure relief devices, agitators, and components with and without moving parts. The program shall include the following provisions: i) Annually, test all agitators, pumps, valves, and pressure relief devices in light liquid service; ii) Quarterly, test all compressors, valves, and pressure relief devices in gas service, unless on both of the past two occasions such testing was conducted at a chemical plant the permittee determined that: (1) Less than two percent of all the compressors, valves, and pressure relief devices tested had a regulated leak. In such an instance the permittee may elect to conduct such testing once every two quarters; and (2) Less than one percent of all the compressors, valves, and pressure relief devices tested had a regulated leak. In such an instance the permittee may elect to conduct such testing once every two quarters; and (2) Less than one percent of all the compressors, valves, and pressure relief devices tested had a regulated leak. In such an instance, the permittee may elect to conduct such testing once every four quarters; iii) Monthly, visually inspect all single mechanical seals and packed seal pumps; iv) Every six months, visually inspect any other type of component in light liquid service; and v) Test any other type of component in gaseous service within 15 days after the component has been returned to service following having been taken apart or disconnected and reassembled; [N.J.A.C. 7:27-16.18(i)] | Other: Measure the applicable VOC at a distance within 0.4 inches (one centimeter) of the source in accordance with the EPA test reference method 21 set forth at 40 CFR part 60 Appendix A, using methane as the reference compound to determine the concentration of VOC in a gaseous leak from a component.[N.J.A.C. 7:27-16.18(e)]. | None. | Repair equipment: As per the approved schedule. A readily visible identification tag shall be affixed to any component detected to have a regulated leak. The tag must bear a number identifying the component and the date on which the regulated leak was detected. The tag must remain in place until the regulated leak is repaired. [N.J.A.C. 7:27-16.18(i)5] |

FG29 Pharmaceutical Plant Leaks from Valves, Pumps, Connectors, etc.

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|--|------------------------------|
| 4 | The permittee shall maintain a log of regulated leaks. [N.J.A.C. 7:27-16.18(j)1] | None. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The log shall be retained for a minimum of five years and be made available immediately upon request by the Department. The log shall contain the following data for each instance in which a component is detected to have a regulated leak: 1) The name of the process unit where the component detected to have a regulated leak is located. ii) The type of component iii) The tag identification number of the component iv) The date on which the regulated leak was detected v) The date on which the component detected to have a regulated leak was retected to have a regulated leak was repaired vi) The date and instrument reading of the retest procedure after a component detected to have a regulated leak is repaired vii) A record of the calibration of monitoring instrument viii) An identification of those regulated leaks that cannot be repaired without a process unit shutdown; and ix) The total number of components monitored and the total number of components detected to have a regulated leak. [N.J.A.C. 7:27-16.18(j)1] | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|--|
| 5 | Submit a report to the Southern Regional Enforcement office. [N.J.A.C. 7:27-16.18(j)2] | None. | None. | Submit a report: Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). The report shall list 1) all components detected to have a regulated leak during the previous three calendar months that have not been repaired within the applicable time limits set forth in N.J.A.C. 7:27-16.18, Tables 18A and 18B, 2) all components detected to have a regulated leak whose repair is awaiting a process unit shutdown, 3) all components not tested because they were not in contact with applicable VOC or not in operation during their specified monitoring period, 4) the total number of components inspected, and 5) the total number of components detected to have a regulated leak. [N.J.A.C. 7:27-16.18(j)2] |
| 6 | No owner or operator shall install or operate a valve, except for a safety pressure relief valve, at the end of a pipe or line containing applicable VOC unless the pipe or line is sealed with a second valve, a blind flange, a plug or a cap. The sealing device may be removed only when a sample is being taken, during actual use in the process, or during maintenance. A fill line that is used to regularly fill containers is considered to be in actual use in the process for the purpose of this provision. [N.J.A.C. 7:27-16.18(o)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|------------------------------|
| 7 | The provisions of leak detection and repair | None. | None. | None. |
| | do not apply to the following: | | | |
| | 1. A component which is primarily used in a | | | |
| | laboratory operation or research facility; | | | |
| | 2. A component that cannot be tested | | | |
| | without immediate danger to the personnel | | | |
| | conducting the test, or a component that | | | |
| | cannot be tested because it is not accessible, | | | |
| | and cannot practicably be made accessible, | | | |
| | for conducting the test. | | | |
| | 3. A pump that is inherently sealless by | | | |
| | design, for example, a magnetic drive, | | | |
| | canned motor, or diaphragm pump; | | | |
| | 4. A pump equipped with dual mechanical | | | |
| | seals, provided that the barrier fluid is not an | | | |
| | applicable VOC and that: i). Each dual | | | |
| | mechanical seal is operated with the barrier | | | |
| | fluid at a pressure that is at all times greater | | | |
| | than the pump stuffing box pressure; ii). | | | |
| | Each dual mechanical seal is equipped with | | | |
| | a barrier fluid degassing reservoir that is | | | |
| | connected by a closed-vent system to a VOC | | | |
| | control apparatus; iii). Each dual mechanical | | | |
| | seal is equipped with a closed-loop system | | | |
| | that purges the barrier fluid into a process | | | |
| | stream; or iv). Each barrier fluid system is | | | |
| | equipped with a device that provides | | | |
| | detection for the failure of the seal system, | | | |
| | the barrier fluid system, or both; | | | |
| | 5. A leakless design Bellows type valve; | | | |
| | N.J.A.C. 7:27-16.18(p)(1) thru [N.J.A.C. | | | |
| | 7:27-16.18(p)5] | | | |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|------------------------------|
| 8 | The provisions of leak detection and repair do not apply to the following: Process equipment enclosed in such a manner that all emissions from any component with a leak is vented through a system that routes those emissions to a controlled emission point, provided that: i) The enclosure is maintained under negative pressure at all times while the process unit is in operation; or ii) The potential points of leakage from the enclosure are subjected to the same leak detection and repair requirements as the components would be if they were not enclosed. [N.J.A.C. 7:27-16.18(p)6] | None. | None. | None. |
| 9 | Difficult to monitor components installed prior to May 31, 1995, are exempt from quarterly testing requirements in N.J.A.C. 7:27-16.18(i), and instead such testing shall be conducted on an annual basis. [N.J.A.C. 7:27-16.18(l)] | None. | None. | None. |
| 10 | The provisions of N.J.A.C. 7:27-16.18(i) shall not apply to a pressure relief device which is connected to an operating flare or to a vapor recovery device, a storage tank valve, a valve that is not externally regulated, or a valve or other component in vacuum service. [N.J.A.C. 7:27-16.18(n)] | None. | None. | None. |
| 11 | The facility may use pressure testing with gas or liquid according to the procedures described in N.J.A.C. 7:27-16.18(q) as an alternative method to comply with the leak detection requirements of N.J.A.C. 7:27-16.18(i). [N.J.A.C. 7:27-16.18(q)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|--|---|
| 12 | The facility is exempt from the requirements to repair any regulated leak within the applicable time limits set forth in N.J.A.C. 7:27-16.18, so long as no applicable VOC is fed to the source operation of which the component is a part until testing confirms that the leak has successfully been repaired. [N.J.A.C. 7:27-16.18(r)] | None. | None. | None. |
| 13 | The permittee shall apply provisions of Part 63, Subpart GGG to pumps, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, instrumentation systems, control devices and closed-vent systems that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year. [40 CFR 63.1255(a)(1)] | Other: The permittee shall identify equipment subject to the provisions of 40 CFR Part 63, Subpart GGG on a plant site plan, in log entries or by designation of process boundaries by some form of weatherproof identification.[40 CFR 63.1255(a)(7)]. | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee shall maintain the list of equipment subject to Part 63, Subpart GGG. Except for the equipment identified in 40 CFR 63.12255(g)(2)(ii) through (viii), equipment need not be identified individually and can be identified as a group if all items of that equipment are in a designated area. The list of identification numbers shall be updated if needed, to incorporate equipment changes identified during the course of each monitoring period within 90 calendar days, or by the next Periodic Report, following the end of the monitoring period for the type of equipment component monitored, whichever is later. [40 CFR 63.1255(g)(2)(i)] | Submit a report: As per the approved schedule The permittee shall submit Periodic Reports semi-annually. The first report shall be submitted no later than 240 days after the Notification of Compliance Status Report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status Report is due. Each subsequent report shall cover the 6-month period following the preceding period. The report shall contain the following information: i) For equipment complying with the provisions of paragraphs (b) through (g), except paragraph (b)(4)(iv) of 40 CFR 63.1255 and 40 CFR 63.179, the summary information listed in (A) through (L) of 40 CFR 63.1255 for each monitoring period during the 6-month period. ii) For owners or operators electing to meet the requirements of 40 CFR63.178(b), the report shall include the information listed in paragraphs (h)(3)(iii)(A) through (E) of 40 CFR 63.1255 for each process. iii) Any revisions to items reported in earlier Notification of Compliance Status report, if the method of compliance has change since the last report. [40 CFR 63.1255(h)(3)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|----------------------------------|---|
| 14 | Each pump or agitator equipped with a dual mechanical seal system that includes a barrier fluid is exempt from the requirements of 40 CFR 63.255(c)(1) through (c)(4)(iii), provided the following requirements are met: (i) each dual mechanical seal system is: (A) Operated with a barrier fluid at a pressure that is at all times greater than the pump/agitator stuffing box pressure; or (B) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of 40 CFR63.1255(b)(4)(ii);or (C) Equipped with a closed-loop system that purges the barrier fluid into a process stream (ii) The barrier fluid is not in light liquid service. (iii) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. (iv) Each pump/agitator is checked by visual inspection each calendar week for indications of liquids dripping from the pump/agitator seal. (v) Each sensor is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site. (vi) The permittee determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicate failure of the seal system, the barrier fluid system, or both. [40 CFR 63.1255(c)(5)] | Monitored by periodic leak detection monitoring upon occurrence of event. The permittee shall mointor the pump or agitator using the method specified in 40 CFR 63.180(b) if there are indications of liquids dripping from the pump or agitator at the time of the weekly inspection. [40 CFR 63.1255(c)(5)(iv)] | None. | Repair equipment: As per the approved schedule. When a leak is detected, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipments. The leak shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. 40 CFR 63.1255(c)(3) and. [40 CFR 63.1255(c)(5)(vii)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|---|---|
| 15 | The permittee shall conduct a visual inspection each calendar week for each pump and agitator in light organic HAP liquid service and agitator in organic HAP gas/vapor and light organic HAP liquid service subject to the requirements of Subpart GGG for indications of liquids dripping from the pump or agitator seal. [40 CFR 63.1255(c)(2)(iii)] | Monitored by visual determination each week during operation. If there are indications of liquid drippings from the pump or agitator seal at the time of weekly inspection, the permittee shall: 1) eliminate the visual indications of liquid drippings or 2) follow the method specified in 40 CFR 63.180(b) prior to the next weekly inspection. [40 CFR 63.1255(c)(2)(iii)] | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall document that the inspection was conducted and the date of the inspection. These records should be recorded and kept for 5 years (at least 2 years onsite and the remaining 3 years either onsite or offsite). The owner or operator shall maintain the following records for leaking equipment identified in this inspection: i) The instrument and the equipment identification number and the operator initials, or identification number. ii) The date the leak was detected and the date of the first attempt to repair the leak. iii) The date of successful repair of the leak. iv) The maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A, after the leak is successfully repaired or determined to be non-repairable. v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. vi) If repairs were delayed, dates of process shutdowns that occur while the equipment is unrepaired. 40 CFR63.1255 (g)(3) and. [40 CFR 63.1255(g)(4)] | Repair equipment: As per the approved schedule. When a leak is detected, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The leak shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. For equipment that is not monitored by the method specified in 40 CFR 63.180(b), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated. First at repairs include, but are not limited to, the following practices where practicable: A) Tightening of packing gland nuts B) Ensuring that the seal flush is operating at design pressure and temperature. [40 CFR 63.1255(c)(3)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|--|--|
| 16 | The permittee shall monitor each pump and agitator in organic HAP gas/vapor service or in light organic HAP liquid service subject to Subpart GGG requirement quarterly to detect leaks by the method specified in 40 CFR 63.180(b). A leak is defined as an instrument reading of 10,000 ppm or greater for agitator and an instrument reading of 2,000 ppm or greater for pumps. 40 CFR 63.1255(c)(1) and [40 CFR 63.1255(c)(2)] | Monitored by periodic leak detection monitoring at the approved frequency as specified by the method in 40 CFR 63.180(b). [40 CFR 63.1255(c)] | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall maintain the following records for leaking equipment identified in this inspection for a period of 5 years (2 years onsite and the remaining 3 years either onsite or offisite): i) The instrument and the equipment identification number and the operator initials, or identification number. ii) The date the leak was detected and the date of the first attempt to repair the leak. iii) The date of successful repair of the leak. iii) The date of successful repair of the leak. iv) The maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A, after the leak is successfully repaired or determined to be non-repairable. v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. vi) If repairs were delayed, dates of process shutdowns that occur while the equipment is unrepaired. [40 CFR 63.1255(g)(4)] | Repair equipment: As per the approved schedule. When a leak is detected, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The leaking equipment shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First at repairs include, but are not limited to, the following practices where practicable: A) Tightening of packing gland nuts B) Ensuring that the seal flush is operating at design pressure and temperature. [40 CFR 63.1255(c)(3)] |
| 17 | When performing the calculation of percent leakers on a 1-year rolling average, the greater of either 10 percent or three of the pumps in a group of processes leak, the permittee shall monitor each pump once per month, until the calculated 1-year rolling average value drops below 10 percent or three pumps, as applicable. The number of pumps in a group of processes shall be the sum of all the pumps in organic HAP servie, except that pumps found leaking in a continuous process within 1 quarter after startup of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only. [40 CFR 63.1255(c)(4)] | Monitored by calculations each month during operation based on a one year rolling average. Percent leaking pumps shall be determined by the following equation: %PL =[(PL-PS)/(PT-PS)] x 100 where %PL = percent leaking pumps PL= number of pumps found leaking as determined through periodic monitoring by an instrument PT= total pumps in organic HAP service, including those meeting the criteria in paragraphs (c) (5) and (6) of 40 CFR 63.1255. PS= number of pumps in a continuous process leaking within 1 quarter of startup during the current monitoring period. [40 CFR 63.1255(c)(4)] | Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [40 CFR 63.1255] | None. |

FG29 Pharmaceutical Plant Leaks from Valves, Pumps, Connectors, etc.

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|------------------------------|
| 18 | Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 63.177 and 40 CFR 63.1255(d)(4) through (d)(6). The cap, blind flange, plug, or second valve shall seal the opend end at all times excpet during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair. The cap, blind flange, plug, or second valve shall be in place within 1 hour of cessation of maintenance or repair. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. When a double block and bleed system is being used, the bleed valve or lie may remain open during operations that require venting the line between the block valves but shall comply with 40 CFR 63.1255(d)(1) at all other times. [40 CFR 63.1255(d)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|---|---|
| 19 | The permittee shall monitor all valves in gas organic HAP service or in light liquid organic HAP service to detect for leaks as specified in 40 CFR 63.180(b) at the intervals specified below. An instrument reading of 500 ppm or greater defines a leak. i) For a group of processes with 2 percent or greater leaking valves, the permittee shall monitor each valve per month. ii) For a group of processes with less than 2 percent leaking valves, the permittee shall monitor each valve once each quarter iii) For a group of processes with less than 1 percent leaking valves, the permittee may elect to monitor each valve once every 2 quarters. iv) For a group of processes with less than 0.5 percent leaking valves, the permittee may elect to monitor each valve once every 4 quarters. v) For a group of processes with less than 0.25 percent leaking valves, the permittee may elect to monitor each valve once every 2 years. [40 CFR 63.1255(e)(4)] | Monitored by periodic leak detection monitoring at the approved frequency. The permittee shall calculate the percent leaking valves for each group or processes or subgoup by the following equation: % VL = [VL/VT] x 100 where % VL = percent leaking valves as determined through periodic monitoring required in 40 CFR 63.1255(e)(2) through (e)(4). VT = total valves monitored, in a monitoring period excluding valves monitored as required by 40 CFR 63.1255(e)(7)(iii). [40 CFR 63.1255(e)(6)] | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee shall document that the inspection was conducted and the date of the inspection. These records should be kept for a period of 5 years (2 years onsite and the remaining 3 years either onsite or offsite). The permittee shall maintain the following records for leaking equipment identified in this inspection: i) The instrument and the equipment identification number and the operator initials, or identification number. ii) The date the leak was detected and the date of the first attempt to repair the leak. iii) The date of successful repair of the leak. iv) The maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A, after the leak is successfully repaired or determined to be non-repairable. v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. vi) If repairs were delayed, dates of process shutdowns that occur while the equipment is unrepaired. 40 CFR 63.1255(e) and. [40 CFR 63.1255(g)] | Repair equipment: As per the approved schedule. When each leak is detected, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipments. The leak shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 63.1255(c)(3)] |
| 20 | The owner or operator shall maintain a list of identification numbers for compressors. 40 CFR63.181(b)(1)(i) and [40 CFR 63.1255(b)(3)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|---------------------------|--|
| 21 | Each compressor subject to 40 CFR 63.164(a) shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to atmosphere; Each compressor seal system shall be: (1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or (2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 63.172; or (3) Equipped with a system that purges the barrier fluid into a process stream. [40 CFR 63.164(b)]; and The barrier fluid shall not be in light liquids | None. | None. | None. |
| | ervice. 40 CFR 63.164(c) and [40 CFR 63.1255(b)(3)] | | | |
| 22 | Each barrier fluid system for the compressors subject to 40 CFR 63.164(a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. [40 CFR 63.164(d)]; The permittee shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. [40 CFR63.164(e)(2)]; and If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the design criterion determined by the owner or operator, a leak is detected. 40 CFR 63.164(f) and [40 CFR 63.1255(b)(3)] | Other: Each sensor shall be observed daily or shall be equipped with an audible alarm, unless the compressor is located within the boundary of an unmanned plant site.[40 CFR 63.164(e)(1)]. | None. | Repair equipment: As per the approved schedule : Within 15 calendar days from detection. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. For each leak, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipments. [40 CFR 63.1255(c)(3)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|--|------------------------------|
| 23 | A compressor is exempt from the requirements of 40 CFR 63.164(a) through (g) if it is equipped with a closed-vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complied with the requirements of 40 CFR 63.172. 40 CFR 63.164(h) and [40 CFR 63.1255(b)(3)] | None. | None. | None. |
| 24 | Any compressor that is designated to operate with an instrument reading of less than 500 parts per million above background, is exempt from the requirements of 40 CFR 63.164(a) through (h). [40 CFR 63.164(i)] | Monitored by periodic leak detection monitoring once initially upon designation, annually, and at other times requested by the Administrator as measured by the method specified in 40 CFR 63.180(c). [40 CFR 63.164(i)(2)] | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall maintain a list of identification numbers for compressors that the owner or operator elects to designate as operating with an instrument reading of less than 500 ppm above background. [40 CFR 63.181(b)(2)(ii)] | None. |
| 25 | The owner or operator shall maintain a list of identification numbers for pressure relief devices in gas/vapor service. [40 CFR 63.181(b)(1)(i)] & 40 CFR 63.181(b)(3)(i) and [40 CFR 63.1255(b)(3)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|--|---|
| 26 | Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with an instrument reading of less than 500 parts per million above background. [40 CFR 63.165(a)]. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of 40 CFR 63.165, provided the permittee complies with the following requirement that after each pressure release, a rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release. [40 CFR 63.165(d)] and [40 CFR 63.1255(b)(3)] | Monitored by periodic leak detection monitoring at the approved frequency. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in 40 CFR 63.180(c). [40 CFR 63.165(b)(2)] | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall maintain the records of the dates and results of the monitoring following a pressure release for each pressure relief device. The results shall include: 1. The background level measured during each monitoring; and 2. The maximum instrument reading measured at each piece of equipment during each measurement. [40 CFR 63.181(f)] | Repair equipment: As per the approved schedule : After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release. No later than 5 calendar days after the pressure release and being returned to organic HAP service, the pressure relief device shall be monitored to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in 40 CFR 63.180(c). 40 CFR 63.165(b) and. [40 CFR 63.1255(b)(3)] |
| 27 | Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in 40 CFR 63.172 is exempt from the requirements of 40 CFR 63.165 (a) and (b). 40 CFR 63.165(c) and [40 CFR 63.1255(b)(3)] | None. | None. | None. |
| 28 | Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of 40 CFR 63.165 (a) and (b), provided that after each pressure release, a new rupture disk is installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release. 40 CFR 63.165(d) and [40 CFR 63.1255(b)(3)] | None. | Other: : The owner or operator shall maintain a list of identification numbers for pressure relief device equipped with rupture disks.[40 CFR 63.181(b)(3)(ii)]. | None. |

FG29 Pharmaceutical Plant Leaks from Valves, Pumps, Connectors, etc.

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|------------------------------|
| 29 | Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed vent system. Gases displaced during filling of the sampling container are not required to be collected or captured. 40 CFR 63.166(a) and [40 CFR 63.1255(b)(3)] | None. | None. | None. |
| 30 | Each closed-purge, closed-loop, or closed vent system shall: (1) Return the purged process fluid directly to the process line; or (2) Collect and recycle the purged process fluid; or (3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR 63.172; or (4) Collect, store, and transport the purged process fluid to any of the following systems or facilities: (i) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63 Subpart G, applicable to Group 1 wastewater streams; or (ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or (iii) A facility permitted, licensed, or registered by the State of New Jersey to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261. 40 CFR 63.166(b) and [40 CFR 63.1255(b)(3)] | None. | None. | None. |
| 31 | In-situ sampling systems and sampling systems without purges are exempt from the requirements of 40 CFR 63.166(a) and (b). 40 CFR 63.166(c) and [40 CFR 63.1255(b)(3)] | None. | None. | None. |

FG29 Pharmaceutical Plant Leaks from Valves, Pumps, Connectors, etc.

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|--|--|
| 32 | The permittee shall maintain a list of identification numbers for sampling connecting systems. 40 CFR 63.181(b)(1)(i) and [40 CFR 63.1255(b)(3)] | None. | None. | None. |
| 33 | The permittee shall maintain a list of identification numbers for pumps, valves, connectors and agitators in heavy liquid service. Connectors need not be individually identified if all connectors in a designated area or length of pipe are identified as a group and the number of connectors is indicated. 40 CFR 63.181(b)(1)(i) and [40 CFR 63.1255(b)(3)] | None. | None. | None. |
| 34 | If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves, connectors, and agitators in heavy liquid service, the owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 63.180(b). If an instrument reading of 10,000 ppm or greater for agitators, 2,000 ppm or greater pumps, or 500 ppm or greater for valves and connectors is measured, a leak is detected. [40 CFR 63.169(b)]. (2) If a potential leak is repaired as described in 40 CFR 63.169(c) and (d), it is not necessary to monitor the system for leaks by the method specified in 40 CFR 63.180(b). 40 CFR 63.169(a) and [40 CFR 63.1255(b)(3)] | Monitored by periodic leak detection monitoring at the approved frequency within 5 days after an evidence of a potential leak is found by visual, audible, olfactory or any other detection method. The equipment shall be monitored by the method specified in 40 CFR 63.180(b). 40 CFR 63.169(a) and. [40 CFR 63.1255(b)(3)] | Other: : Record information, data, and analysis used to determine that a piece of equipment or process is in heavy liquid service. Such a determination shall include an analysis or demonstration that the process fluids do not meet the criteria of "in light liquid or gas service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge. 40 CFR 63.1255(g)(8) and[40 CFR 63.1255(a)(10)(i)]. | Repair equipment: As per the approved schedule as soon as practicable, but not later than 15 calendar days after it is detected. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. For equipment that is not monitored by the method specified in 40 CFR 63.180(b), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure. After each leak is detected, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipments. 40 CFR 63.169(c) and. [40 CFR 63.1255(b)(3)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---|------------------------------|
| 35 | Valves, connectors, agitators, and pumps may be designated as unsafe to monitor if the permittee determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements referred to in paragraphs (f)(1)(i) through (iii) of 40 CFR 63.1255. Any part of the closed-vent system may be designated as unsafe to inspect if the permittee determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements referred to in paragraph (f)(1)(i) through (f)(1)(iv) of 40 CFR 63.1255. [40 CFR 63.1255(f)(2)] | None. | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency The permittee must have a written plan that requires monitoring of the equipment as frequently as practicable during safe to monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable to the group of processes in which the equipment is located. For any part of closed-vent system designated as unsafe to inspect, the permittee must have a written plan that requires inspection of the closed-vent systems as frequently as practicable during safe to inspect times, but not more frequently than annually. [40 CFR 63.1255(f)(2)] | None. |
| 36 | A valve, agitator, or pump may be designated as difficult to monitor if the permittee determines that the valve, agitator, or pump cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface, or it is not accessible in a safe manner when it is in orgnaic HAP service. Any part of a closed-vent system may be designated as difficult to inspect if the permittee determines that the equipment cannot be inspected without elevating the monitoring personnel more than 2 meters above a support suface, or it is not accessible in a safe manner when it is in organic HAP service. [40 CFR 63.1255(f)(3)] | None. | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee of valves, agitator or pump designated as difficult to monitor must have a written plan that requires monitoring of the equipment at least once per calendar year or on the periodic monitoring schedule otherwise applicable to the group of processes in which the equipment is located, whichever is less frequent. For any closed-vent system designated as difficult to inspect, the permittee must have a written plan that requires inspection of the closed-vent system at least once every 5 years. [40 CFR 63.1255(f)(3)(iv)] | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|---|--|
| 37 | VOC (Total) >= 500 Parts per Million above background as indicated by an instrument reading by visual inspections, means the leak is detected for a closed-vent system. 40 CFR 63.172(h) and [40 CFR 63.1255(b)(4)(ii)] | Monitored by periodic emission monitoring annually Each closed-vent system shall be inspected as follows: (1) If the closed-vent system is constructed of hard-piping, the owner or operator shall: (i) Conduct an initial inspection according to the procedures in 40 CFR 63.172(g) and 40 CFR 63.180(b), and (ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks. (2) If the vapor collection system or closed-vent system is constructed of duct work, the owner or operator shall: (i) Conduct an initial inspection according to the procedures in 40 CFR 63.172(g) and 40 CFR 63.180(b), and (ii) Conduct annual inspections according to the procedures in 40 CFR 63.172(g) and 40 CFR 63.180(b). 40 CFR 63.172(f) and. [40 CFR 63.1255(b)(4)(ii)] | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event For each inspection conducted in accordance with the provisions of 40 CFR 63.172(f)(1) or (f)(2) during which no leaks were detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 63.181(g)(3)] | Repair equipment: As per the approved schedule A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 63.1255(c)(2)(iii)] |
| 38 | Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. 40 CFR 63.172(j) and [40 CFR 63.1255(b)(4)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|------------------------------|
| 39 | For each closed-vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall comply with the following: (1) Install, set or adjust, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in 40 CFR 63.118(a)(3). The flow indicator shall be installed at the entrance to any bypass line; o (2) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line. 40 CFR 63.172 (j) and [40 CFR 63.1255(b)(4)] | None. | None. | None. |
| 40 | Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to 40 CFR 63.172(j). 40 CFR 63.173(j)(3) and [40 CFR 63.1255(b)(4)] | None. | None. | None. |
| 41 | Whenever organic HAP emissions are vented to a closed-vent system or control device used to comply with the provisions of 40 CFR 63 Subpart H, such system or control device shall be operating. 40 CFR 63.172(m) and [40 CFR 63.1255(b)(4)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|------------------------------|
| 42 | Organic HAPs >= 95 % control. Recovery or recapture devices (e.g., condensers and absorbers) shall be designed and operated to recover the organic hazardous air pollutant emissions or volatile organic compounds emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. 40 CFR 63.172(b) and [40 CFR 63.1255(b)(4)] | None. | None. | None. |
| 43 | Organic HAPs >= 95 % control. Enclosed combustion devices shall be designed and operated to reduce the organic hazardous air pollutant emissions or volatile organic compounds emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 deg C. [40 CFR 63.172(c)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|--|------------------------------|
| 44 | The permittee shall monitor control devices that are used to comply with the provisions of 40 CFR 63.172 to ensure that they are operated and maintained in conformance with their design. 40 CFR 63.172(e) and [40 CFR 63.1255(b)(3)(ii)] | None. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall maintain the following records for closed-vent systems and control devices for the life of the equipment: Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams. The dates and descriptions of any changes in the design specifications. The flare design (i.e. steam-assisted, air-assisted, or non-assisted) and the results of the compliance demonstration required by 40 CFR 63.11(b) of subpart A. A description of the parameters or parameters monitored, as required in 40 CFR 63.1255(b)(4)(i) to ensure that the control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) were selected for monitoring. The following information shall be retained for 2 years: Dates and durations when the closed vent systems and control devices required in 40 CFR 63.1255(c) through 40 CFR 63.1265 and 40 CFR 63.1255(c) through 40 CFR 63.166 and 40 CFR 63.1255(c) through 40 CFR 63.164 and 63.166 [40 CFR 63.1255(g)(7)] | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|------------------------------|
| 45 | The permittee may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures shall be included in a document that is maintained at the plant site. Reasons for delay of repair may be documented by citing the relevant sections of the written procedure. If delay was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked onsite before depletion and the reason for depletion. If repairs were delayed, dates of process shutdowns that occur while the equipment is unrepaired. [40 CFR 63.1255(g)(4)] | None. | None. | None. |

Subject Item: IS460001 Jet Mills (<= 50 pounds per hour)

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|------------------------------|
| 1 | Particulate emission limit based on 0.02 grains per SCF <= 0.5 pound per hour. [N.J.A.C. 7:27- 6.2(a)] | None. | None. | None. |

Subject Item: IS460003 Local Pick-up Points (<= 50 pounds per hour)

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|------------------------------|
| 1 | Particulate emission limit based on 0.02 grains per SCF <= 0.5 pound per hour. [N.J.A.C. 7:27- 6.2(a)] | None. | None. | None. |

Subject Item: GR29 MACT Subpart GGG requirements

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|--|------------------------------|
| 1 | Closed-vent system that contains bypass lines that could divert a vent stream away from a control device used to comply with the requirements in 40 CFR 63.1253, 63.1254 and 63.1256 shall comply with one of the following requirement: 1) Install, calibrate, maintain, and operate a flow indicator that determines whether vent stream flow is present at least once every 15 minute. or 2) Secure the bypass line valve in the closed position with a car seal or lock and key type configuration . [40 CFR 63.1252(b)] | Monitored by visual determination each month during operation. [40 CFR 63.1252(b)(2)] | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. If the car seal or lock and key method is used to comply with the applicable requirement, the permittee shall record that the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve postion has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal has broken. or The permittee shall keep hourly records of whether the flow indicator was operating and whether a diversion was detected at any time during the hour, as well as record of the times and durations of all periods when the vent stream is diverted from the control device or the flow indicator is not operating. [40 CFR 63.1259(i)(6)] | None. |
| 2 | The permittee may operate non-dedicated PMPU's during periods of planned routine maintenance for centralized combustion control devices (CCCD) in accordance with the provisions specified in (h)(1) thorough (h)(6) of 40 CFR 63.1252. [40 CFR 63.1252(h)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|------------------------------|
| 3 | If a combustion device is used to comply with the provisions of 40 CFR 63.1254 (process vents) for a halogenated vent stream, then the vent stream shall be ducted to a halogen reduction device such as, but not limited to, a scrubber, before it is discharged to the atmosphere. The halogen reduction device after the combustion control device must reduce emissions by the following amounts: 1) A hydrogen reduction device after the combustion control device must reduce overall emissions of hydrogen halides and halogens, as defined in 40 CFR 63.1251, by 95 percent or to a concentration less than or | None. | None. | None. |
| 4 | equal to 20 ppmw. [40 CFR 63.1252(g)(1)] Uncontrolled HAP emissions from the sum | None. | None. | None. |
| 4 | of all process vents within a process that are not subject to the requirements of paragraph (a)(3) of 40CFR63.1254 shall be reduced by 93 percent or greater by weight. [40 CFR 63.1254(a)(1)(i)] | ivone. | | INORC. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|--|------------------------------|
| 5 | For each process complying with PBAML, actual HAP emissions from the sum of all process vents within a process must not exceed 900 kilograms (kg) in any 365-day period. For all processes complying with PBAML, actual HAP emissions from the sum of all process vents within processes complying with 40 CFR 63.1254(a)(2)(i) are limited to a maximum of 1,800 kg in any 365-day period. [40 CFR 63.1254(a)(2)] | Monitored by calculations at the approved frequency. The permittee shall demonstrate continuous compliance with the 900 and 1800 kg/yr emission limits by calculating daily 365-day rolling summations of emissions. During periods of planned routine maintenance when emissions are controlled as specified in 40 CFR 63.1252(h), the permittee must calculate controlled emissions assuming the HAP emissions are reduced by 93 percent. [40 CFR 63.1258(c)] | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency : The permittee shall maintain the following records: (A) The number of batches per year for each batch process. (B) The operating hours per year for continuous process. (C) Standard batch uncontrolled and controlled emissions for each process. (D) Actual controlled emissions for each batch operated during periods of planned routine maintenance of a CCCD, calculated according to 40 CFR 63.1258(c). (E) Actual uncontrolled and controlled emissions for each nonstandard batch. (F) A record whether each batch operated was considered a standard batch. [40 CFR 63.1259(b)(5)(ii)] | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|---------------------------|------------------------------|
| 6 | At new and existing sources, a wastewater stream is an affected wastewater stream if | Monitored by calculations upon occurrence of event. To determine the annual average | None. | None. |
| | the annual average concentration and annual | concentration and annual load of partially | | |
| | load exceed any of the criteria specified | soluble and/or soluble HAP compounds in a | | |
| | below. | wastewater stream, the permittee shall | | |
| | (A) The wastewater stream contains partially | comply with the provisions in paragraphs | | |
| | soluble HAP compounds at an annual | (e)(1)(i) through (iii) of 40 CFR 63.1257. | | |
| | average concentration greater than 1,300 | [40 CFR 63.1257(e)(1)] | | |
| | ppmw, and the total soluble and partially | | | |
| | soluble HAP load in all wastewater from the | | | |
| | PMPU exceeds 0.25 Mg/yr. | | | |
| | (B) The wastewater stream contains partially | | | |
| | soluble and/or soluble HAP compounds at | | | |
| | an annual average concentration greater than 5,200 ppmw, and the total soluble and | | | |
| | partially soluble HAP load in all wastewater | | | |
| | from the PMPU exceeds 0.25 Mg/yr. | | | |
| | (C) The wastewater stream contains partially | | | |
| | soluble and/or soluble HAP at an annual | | | |
| | average concentration of greater than 10,000 | | | |
| | ppmw, and the totally partially soluble | | | |
| | and/or soluble HAP load in all wastewater | | | |
| | from the affected source is greater than | | | |
| | 1Mg/yr. | | | |
| | (D) The wastewater stream contains soluble | | | |
| | HAP compounds at an annual average | | | |
| | concentration greater than 110,000 ppmw, | | | |
| | and the total soluble and partially soluble | | | |
| | HAP load in all wastewater from the PMPU | | | |
| | exceeds 1 MG/yr. [40 CFR 63.1256(a)(1)(i)] | | | |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|---|
| 7 | For each container that recieves, manages, or treats affected wastewater or a residual removed from affected wastewater, the permittee shall comply with the following requirements: 1) The permittee shall operate and maintain a cover on each container used to handle, transfer, or store affected wastewater or a residual removed from affected wastewater in accordance with 40 CFR 63.1256(d)(1)(i) thru (d)(1)(iii). 2) Pumping affected wastewater or a residual removed from affected wastewater or a residual removed from affected wastewater into a container with a capacity greater than or equal to 0.42m3 shall be conducted in accordance with the conditions in paragraphs (d)(2)(i) and (ii) of 40 CFR63.1256. 3) During treatment of affected wastewater or a residual removed from affected wastewater, including aeration, thermal or other treatment, in a container, whenever it is necessary for the container to be open, the container shall be located within an enclosure with a closed-vent system that routes the oraganic HAP vapors vented from the container to a control device. 4) Each container shall be inspected initially, and semi-annually thereafter, for | None. | None. | Repair equipment: As per the approved schedule. When an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 15 calendar days after identification. [40 CFR 63.1256(d)(5)] |
| | improper work practices and control equipment failures in accordance with 40 CFR 63.1258(g). [40 CFR 63.1256(d)] | | | |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|--|------------------------------|
| 8 | When transferring affected wastewater or residual removed from such affected wastewater to an onsite treatment option operation not owned or operated by the owner or operator of the source generating the wastewater or residual or to an offsite treatment operation, the permittee shall: (A) Comply with the provisions specified in paragraphs (b) through (f) of 40 CFR 63.1256 for each waste management unit that receives or manages affected wastewater or a residual removed from affected wastewater prior to shipment or transport. (B) Include a notice with each shipment or transport of affected wastewater. The notice shall state that the affected wastewater or residual contains organic HAP that are to be treated in accordance with the provision of Subpart GGG. When the transport is continuous or on-going, the notice shall be submitted to the treatment operator initially and whenever there is a change in the required treatment. [40 CFR 63.1256(a)(5)] | None. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee when transferring an affected wastewater stream or residual removed from an affected wastewater stream shall keep a record of the notice sent to the treatment operator stating that the wastewater stream or residual contains organic HAP which are required to be managed and treated in accordance with Subpart GGG. [40 CFR 63.1259(g)] | None. |
| 9 | For each control device, the permittee shall install and operate monitoring devices and operate within the established parameter levels to ensure continued compliance with the standard. For control devices that vent streams totaling less than 1 ton/yr HAP emissions, before control, monitoring shall consist of a daily verification that the device is operating properly. If the control device is used to control batch process vents alone or in combination with other streams, the verification may be on a per batch basis. [40 CFR 63.1258(b)(1)] | None. | Other: The owner or operator shall keep a record that each inspection for control devices required by 40 CFR 63.1256(h) was performed and keep copies of all records for at least 5 years as specified in 40 CFR 63,10(b)(1). [40 CFR 63.1259(a)(1)] and[40 CFR 63.1259(i)(2)]. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|--|------------------------------|
| 10 | For affected sources using liquid scrubbers, the permittee shall establish a minimum scrubber liquid flow rate or pressure drop as a site-specific operating parameter which must be measured and recorded every 15 minutes during the period in which the scrubber is functioning in achieving the HAP removall required by Subpart GGG. If the scrubber uses a caustic solution to remove acid emissions, the permittee shall establish a minimum pH of the effluent scrubber liquid as a site-specific operating parameter which must be monitored at least once a day. [40 CFR 63.1258(b)(ii)] | Other: Monitored by a pressure drop instrument or a scrubber flow rate instrument. If monitoring for pressure drop, the monitoring device used to determine the pressure drop shall be certified by the manufacturer to be accurate to within a gage pressure of +_ 10 percent of the maximum pressure drop measured. or If monitoring for liquid flow rate, the monitoring device used for measurement of scrubber liquid flowrate shall be certified by the manufacturer to be accurate within +_ 10 percent of the design scrubber liquid flow rate. The monitoring device shall be calibrated annually. [40 CFR 63.1258(b)(ii)]. | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee must keep the following records up-to-date and readily accessible: 1) Each measurement of a control device operating parameter monitored. 2) For each continuous monitoring system, records documenting the completion of calibration checks and maintenance of continuous monitoring system. [40 CFR 63.1259(b)] | None. |
| 11 | For each thermal incinerator, the permittee shall establish the minimum temperature of the gases exiting the combustion chamber as the site-specific operating parameter which must be measured and recorded at least once every 15 minutes during the period in which the combustion device is functioning in achieving the HAP removal required by Subpart GGG. [40 CFR 63.1258(b)(vii)] | Monitored by temperature instrument every 15 minutes. The temperature monitoring device must be accurate to within +_ 0.75 percent of the temperature measured in degrees Celsius or +_ 2.5 C, whichever is greater. The monitoring device must be calibrated annually. [40 CFR 63.1258(b)(vii)] | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee must keep the following records up-to-date and readily accessible: 1) Each measurement of a control device operating parameter monitored. 2) For each continuous monitoring system, records documenting the completion of calibration checks and maintenance of continuous monitoring system. [40 CFR 63.1259(b)] | None. |
| 12 | The permittee shall keep copies of all records and reports required by Subpart GGG for at least five years. [40 CFR 63.1259(a)(1)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---|------------------------------|
| 13 | Each provision set forth in Subpart GGG shall apply at all times, except that the provisions set forth in 40 CFR 63.1255 shall not apply during periods of nonoperation of the PMPU (or specific portion thereof) in which the lines are drained and depressurized resulting in the cessation of the emissions to which 40 CFR 63.1255 applies. [40 CFR 63.1250(g)(1)] | None. | None. | None. |
| 14 | The permittee shall not shut down items of equipment that are required or utilized for compliance with the emissions limitations of Subpart GGG during times when emissions (or, where applicable, wastewater streams or residuals) are being routed to such items of equipment. This paragraph does not apply if the permittee mush shut down the equipment to avoid damage to a PMPU or potion thereof. [40 CFR 63.1250(g)(2)] | None. | None. | None. |
| 15 | At all times, the permittee must operate and maintain any affected source subject to the requirements of Subpart GGG, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1250(g)(3)] | None. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall maintain records of occurrence and duration of each malfunction of operation (i.e. process equipment), air pollution control equipment, or monitoring equipment. The permittee shall maintain records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.1259(a)(3)] | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|------------------------------|
| | The permittee shall keep records of each operating scenario which demonstrates compliance with Subpart GGG. [40 CFR 63.1259(c)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|--|
| 17 | Submit periodic reports that includes the following information: i) The information in 40CFR63.10(e)(3)(vi)(A) through (I) and (K) through (M). For each CMS, include the information in 40CFR63.10(e)(3)(vi)(J). ii) If the total duration of excess emissions, parameter exceedances, or excursions for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total continuous monitoring system downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, include the information in (g)(2)(ii)(A) thru (D) of 40 CFR 63.1260. iii) Include the records specified in 40CFR63.1252(b)(2) for each inspection conducted in accordance with 40CFR63.1258(h)(2) or (3) during which a leak was detected. iv) For each vapor collection system or closed vent system with a bypass line subject to 40CFR63.1252(b)(2), records required under 40CFR63.1259(i)(6)(ii) of all periods in which the seal mechanism is broken, the bypass valv position has changed, or the key to unlock the bypass line valve was checked out. v) The following information when applicable A) No excess emissions. B) No exceedances of parameter. C) No excursions. D) No continuous monitoring system has been inoperative, out of control, repaired or adjusted. vi) Each new operating scenario which has been operated since the time period covered by the last Periodic report. [40 CFR 63.1260(g)(2)] | None. | None. | Submit a report: As per the approved schedule. The permittee shall submit periodic reports semi-annually. Quarterly reports shall be submitted when the source experiences an exceedance of a temperature limit monitored according to 40CFR63.1258(b)(1)(ii) or an exceedance of the outlet concentration monitored according to 40CFR63.1258(b)(1)(x) or (b)(5). When a new operating scenario has been operated since the last report, in which case quarterly reports shall be submitted. [40 CFR 63.1260(g)(1)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|--|---|
| 18 | Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the permittee shall submit the following information with the next Periodic report: i) A brief description of the process change. ii) A description of any modifications to standard procedures or quality assurance procedures. iii) Revisions to any of the information reported in the original Notification of Compliance Status Report. iv) Information required by the Notification of Compliance Status Report for changes involving the addition of processes or equipment. [40 CFR 63.1260(h)] | None. | None. | Submit notification: Upon occurrence of event with the Periodic report. [40 CFR 63.1260(h)] |
| 19 | The permittee shall submit a report of the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. [40 CFR 63.1260(i)] | None. | Other: The permittee shall maintain all information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown and malfunction plan when all actions taken during periods of startup or shutdown and malfunction are consistent with the procedures specified in such plan.[40 CFR 63.10(b)(2)(v)]. | Submit a report: As per the approved schedule. The report shall be submitted on the same schedule as the periodic reports required under 40 CFR 63.1255(g). The report must include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 1250(g)(3), including actions taken to correct a malfunction. [40 CFR 63.1260(i)] |
| 20 | Table 1 of 40 CFR 63 Subpart GGG specifies and clarifies the provisions of subpart A of Part 63 that apply to an owner or operator of an affected source subject to 40 CFR Subpart GGG. The provisions of subpart A specified in Table 1 are the only provisions of subpart A that apply to an affected source subject to 40 CFR 63 Subpart GGG. [40 CFR 63.1250(c)] | None. | None. | None. |

Subject Item:

GR30 MACT Subpart GGG requirements common to storage tanks & batch processes

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|---|---|
| 1 | Except as provided in paragraphs 40 CFR 63.1258(h)(6) and 40 CFR 63.1258(h)(7), each vapor collection system and | Other: Each vapor collection system, closed-vent system, fixed roof, cover, and enclosure shall be inspected according to the | Other: Records of inspections. The owner or operator shall keep records specified: For each inspection conducted in | Submit a report: As per the approved schedule Periodic reports. An owner or operator shall prepare Periodic reports in |
| | closed-vent system shall be inspected according to the procedures and schedule specified in paragraphs 40 CFR | procedures specified in paragraphs 40 CFR 63.1258(h)(3)(i) through 40 CFR 63.1258(v). | accordance with 40 CFR 63.1258(h)(2) and 40 CFR 63.1258(h)(3) during which a leak is detected, a record of the information | accordance with paragraphs 40 CFR 63.1260(g)(1) and 40 CFR 63.1260(g)(2) and submit them to the Administrator. |
| | 63.1258(h)(2)(i) and 40 CFR 63.1258(h)(ii) and each fixed roof, cover, and enclosure shall be inspected according to the | (i) Inspections shall be conducted in accordance with Method 21 of 40 CFR part 60, appendix A. | specified in paragraphs 40 CFR 63.1259(i)(7)(i) through 40 CFR 63.1259(i)(7)(ix). | (1) Submittal schedule. Except as provided in 40 CFR 63.1260(g)(1)(i), 40 CFR 63.1260(g)(1)(ii), and 40 CFR |
| | procedures and schedule specified in paragraph 40 CFR 63.1258(h)(2)(iii). | (ii) Detection instrument performancecriteria.(A) Except as provided in paragraph | (i) Identification of the leaking equipment.(ii) The instrument identification numbers and operator name or initials, if the leak was | 63.1260(g)(1)(iii), an owner or operator shall submit Periodic reports semiannually. The first report shall be submitted no later |
| | (i) If the vapor collection system or closed-vent system is constructed of hard-piping, the owner or operator shall: | (h)(3)(ii)(B) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, | detected using the procedures described in 40 CFR 63.1258(h)(3); or a record that the leak was detected by sensory observations. | than 240 days after the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the |
| | (A) Conduct an initial inspection according to the procedures in paragraph 40 CFR 63.1258(h)(3), and | appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the process fluid not each individual VOC in | (iii) The date the leak was detected and the date of the first attempt to repair the leak.(iv) Maximum instrument reading measured by the method specified in 40 CFR | Notification of Compliance Status is due. Each subsequent Periodic report shall cover the 6-month period following the preceding period. |
| | (B) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks. | the stream. For process streams that contain nitrogen, air, or other inerts which are not organic HAP or VOC, the average stream | 63.1258(h)(4) after the leak is successfully repaired or determined to be nonrepairable.(v) "Repair delayed" and the reason for the | (i) When the Administrator determines on a case-by- case basis that more frequent reporting is necessary to accurately assess |
| | (CONTINUED) [40 CFR 63.1258(h)(2)] | response factor shall be calculated on an inert-free basis. (B) If no instrument is available at the plant site that will meet the performance criteria | delay if a leak is not repaired within 15 calendar days after discovery of the leak. (vi) The name, initials, or other form of identification of the owner or operator (or | the compliance status of the affected source;or(ii) Quarterly reports shall be submittedwhen the source experiences an exceedance |
| | | specified in paragraph 40 CFR 63.1258(h)(3)(ii)(A), the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as | designee) whose decision it was that repair could not be effected without a shutdown. (vii) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days. | of a temperature limit monitored according to the provisions of 40 CFR 63.1258(b)(1)(iii) or an exceedance of the outlet concentration monitored according to the provisions of 40 CFR 63.1258(b)(1)(x) |
| | | described in paragraph 40 CFR 63.1258(h)(3)(ii)(A). (CONTINUED)[40 CFR 63.1258(h)(3)]. | (viii) Dates of shutdowns that occur while the equipment is unrepaired.(ix) The date of successful repair of the leak. | or 40 CFR 63.1258(b)(5). Once an affected source reports quarterly, the affected source shall follow a quarterly reporting format until a request to reduce reporting frequency |
| | | | (CONTINUED) [40 CFR 63.1259(i)(7)], [40 CFR 63.1259(i)(8)], &[40 CFR 63.1259(i)(9)]. | is approved. (CONTINUED). [40 CFR 63.1260(g)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|---|--|
| 2 | CONTINUATION OF COMPLIANCE STATUS APPLICABLE, MONITORING, RECORDKEEPING AND SUBMITTAL/ACTION REQUIREMENTS. (ii) If the vapor collection system or closed-vent system is constructed of ductwork, the owner or operator shall: (A) Conduct an initial inspection according to the procedures in paragraph 40 CFR 63.1258(h)(3), and (B) Conduct annual inspections according to the procedures in paragraph 40 CFR 63.1258(h)(3). (C) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks. (iii) For each fixed roof, cover, and enclosure, the owner or operator shall: (A) Conduct an initial inspection according to the procedures in paragraph 40 CFR 63.1258(h)(3), and (B) Conduct an initial inspection according to the procedures in paragraph 40 CFR 63.1258(h)(3), and (B) Conduct semiannual visual inspections for visible, audible, or olfactory indications of leaks. [40 CFR 63.1258(h)(2)] | Other: (CONTINUED) (iii)The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A. (iv) Calibration gases shall be as follows: (A) Zero air (less than 10 parts per million hydrocarbon in air); & (B) Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph 40 CFR 63.1258(h)(2)(ii)(A). In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air. (CONTINUED)[40 CFR 63.1258(h)(3)]. | Other: (CONTINUED) For each inspection conducted in accordance with 40 CFR 63.1258(h)(3) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. For each visual inspection conducted in accordance with 40 CFR 63.1258(h)(2)(i)(B) or 40 CFR 63.1258(h)(2)(iii)(B) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 63.1259(i)(7)], [40 CFR 63.1259(i)(9)]. | Submit a report: As per the approved schedule (CONTINUED) (A) Monitoring data, including 15-minute monitoring values as well as daily average values of monitored parameters, for all operating days when the average values were outside the ranges established in the Notification of Compliance Status report or operating permit. (B) Duration of excursions, as defined in 40 CFR 63.1258(b)(7). (C) Operating logs and operating scenarios for all operating scenarios for all operating days when the values are outside the levels established in the Notification of Compliance Status report or operating permit. (D) When a continuous monitoring system is used, the information required in 40 CFR 63.10(c)(5) through 40 CFR 63.10(c)(13). (iii) For each inspection conducted in accordance with 40 CFR 63.1258(h)(2) or 40 CFR 63.1258(h)(3) during which a leak is detected, the records specified in 40 CFR 63.1259(i)(7) must be included in the next Periodic report. (CONTINUED). [40 CFR 63.1260(g)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|----------------------------------|--|
| 3 | CONTINUATION OF COMPLIANCE STATUS MONITORING AND SUBMITTAL/ACTION REQUIREMENTS. [40 CFR 63.1258(h)(2)] | Other: (CONTINUED) (v) An owner or operator may elect to adjust or not adjust instrument readings for background. If an owner or operator elects to not adjust readings for background, all such instrument readings shall be compared directly to the applicable leak definition to determine whether there is a leak. If an owner or operator elects to adjust instrument readings for background, the owner or operator shall measure background concentration using the procedures in ? 63.180(b) and (c). The owner or operator shall subtract background reading from the maximum concentration indicated by the instrument. (vi) The background level shall be determined according to the procedures in Method 21 of 40 CFR part 60 appendix A. (vii) The arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining compliance. [40 CFR 63.1258(h)(3)]. | None. | Submit a report: As per the approved schedule (CONTINUED) (iv) For each vapor collection system or closed vent system with a bypass line subject to 40 CFR 63.1252(b)(1), records required under 40 CFR 63.1259(i)(6)(i) of all periods when the vent stream is diverted from the control device through a bypass line. For each vapor collection system or closed vent system with a bypass line subject to 40 CFR 63.1252(b)(2), records required under 40 CFR 63.1259(i)(6)(ii) of all periods in which the seal mechanism is broken, the bypass valve position has changed, or the key to unlock the bypass line valve was checked out. (v) The information in paragraphs (g)(2)(v)(A) through (D) of this section shall be stated in the Periodic report, when applicable. (A) No excess emissions. (B) No excuestors. (D) No continuous monitoring system has been inoperative, out of control, repaired, or adjusted. (CONTINUED). [40 CFR 63.1260(g)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|---|
| 4 | CONTINUATION OF COMPLIANCE STATUS SUBMITTAL/ACTION REQUIREMENTS. [40 CFR 63.1258(h)(2)] | None. | None. | Submit a report: As per the approved schedule (CONTINUED) (vi) The information specified in paragraphs 40 CFR 63.1260(g)(2)(vi)(A) through 40 CFR 63.1260(g)(2)(vi)(C) for periods of planned routine maintenance. (A) For each tank subject to control requirements, periods of planned routine maintenance during which the control device does not meet the specifications of 40 CFR 63.1253(b) through 40 CFR 63.1253(d). (B) For a CCCD subject to 40 CFR 63.1252(h), periods of planned routine maintenance during the current reporting period and anticipated periods of planned routine maintenance during the next reporting period. (C) Rationale for why planned routine maintenance of a CCCD subject to 40 CFR 63.1252(h) must be performed while a process with a vent subject to 40 CFR 63.1254(a)(3) will be operating, if applicable. This requirement applies only if the rationale is not in, or differs from that in, the Notification of Compliance Status report. (CONTINUED). [40 CFR 63.1260(g)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|---|
| 5 | CONTINUATION OF COMPLIANCE STATUS SUBMITTAL/ACTION REQUIREMENTS. [40 CFR 63.1258(h)(2)] | None. | None. | Submit a report: As per the approved schedule (CONTINUED) (vii) Each new operating scenario which has been operated since the time period covered by the last Periodic report. For each new operating scenario, the owner or operator shall provide verification that the operating conditions for any associated control or treatment device have not been exceeded, and that any required calculations and engineering analyses have been performed. For the initial Periodic report, each operating scenario for each process operated since the due date of the Notification of Compliance Status Report shall be submitted. (viii) If the owner or operator elects to comply with the provisions of 40 CFR 63.1253(b) or 40 CFR 63.1253(c) by installing a floating roof, the owner or operator shall submit the information specified in 40 CFR 63.122(d) through 40 CFR 63.122(f) as applicable. References to 40 CFR 63.152 from 40 CFR 63.122 shall not apply for the purposes subpart GGG. [40 CFR 63.1260(g)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---|------------------------------|
| 6 | Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as | None. | Other: Records shall be maintained as specified in 40 CFR 63.1259(i)(4) through 40 CFR 63.1259(i)(9). | None. |
| | provided in paragraph 40 CFR 63.1258(h)(5). | | The owner or operator shall keep records specified: For each inspection conducted in | |
| | (i) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. | | accordance with 40 CFR 63.1258(h)(2) and 40 CFR 63.1258(h)(3) during which a leak is detected, a record of the information specified in paragraphs 40 CFR | |
| | (ii) Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in paragraph 40 CFR | | 63.1259(i)(7)(i) through 40 CFR63.1259(i)(7)(ix).(i) Identification of the leaking equipment. | |
| | 63.1258(h)(4)(iii). (iii) For leaks found in vapor collection | | (ii) The instrument identification numbers and operator name or initials, if the leak was detected using the procedures described in | |
| | systems used for transfer operations, repairs shall be completed no later than 15 calendar days after the leak is detected or at the | | 40 CFR 63.1258(h)(3); or a record that the leak was detected by sensory observations. (iii) The date the leak was detected and the | |
| | beginning of the next transfer loading operation, whichever is later. [40 CFR 63.1258(h)(4)] | | date of the first attempt to repair the leak. (iv) Maximum instrument reading measured by the method specified in 40 CFR | |
| | | | 63.1258(h)(4) after the leak is successfully repaired or determined to be nonrepairable.(v) "Repair delayed" and the reason for the | |
| | | | delay if a leak is not repaired within 15calendar days after discovery of the leak.(vi) The name, initials, or other form of | |
| | | | identification of the owner or operator (or designee) whose decision it was that repair could not be effected without a shutdown. | |
| | | | (vii) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days. | |
| | | | (viii) Dates of shutdowns that occur while the equipment is unrepaired. (ix) The date of successful repair of the leak. [40 CFR 63.1258(h)(8)] &[40 CFR | |
| | | | [40 CFR 05.1258(ll)(8)] &[40 CFR 63.1259(i)(7)]. | |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|--|------------------------------|
| 7 | Delay of repair of a vapor collection system, closed-vent system, fixed roof, cover, or enclosure for which leaks have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in 40 CFR 63.1251, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next shutdown. [40 CFR 63.1258(h)(5)] | None. | None. | None. |
| 8 | Any parts of the vapor collection system, closed- vent system, fixed roof, cover, or enclosure that are designated, as described in paragraph 40 CFR 63.1258(h)(8)(i), as unsafe to inspect are exempt from the inspection requirements of paragraphs 40 CFR 63.1258(h)(2)(i), 40 CFR 63.1258(h)(2)(ii), and 40 CFR 63.1258(h)(2)(iii) if: (i) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs 40 CFR 63.1258(h)(2)(i), 40 CFR 63.1258(h)(2)(ii), or 40 CFR 63.1258(h)(2)(iii); and (ii) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. | None. | Other: Records of inspections. The owner or operator shall keep records specified: Records identifying all parts of the vapor collection system, closed-vent system, fixed roof, cover, or enclosure that are designated as unsafe to inspect in accordance with 40 CFR 63.1258(h)(6), an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. [40 CFR 63.1259(i)(4)]. | None. |
| | [40 CFR 63.1258(h)(6)] | | | |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---|------------------------------|
| 9 | Any parts of the vapor collection system, closed-vent system, fixed roof, cover, or enclosure that are designated, as described in paragraph 40 CFR 63.1258(h)(8)(ii), as difficult to inspect are exempt from the inspection requirements of paragraphs 40 CFR 63.1258(h)(2)(i), 40 CFR 63.1258(h)(2)(ii), and 40 CFR 63.1258(h)(2)(iii)(A) if: | None. | Other: Records of inspections. The owner or operator shall keep records specified: Records identifying all parts of the vapor collection system, closed-vent system, fixed roof, cover, or enclosure that are designated as difficult to inspect in accordance with 40 CFR 63.1258(h)(7), an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. | None. |
| | (i) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and (ii) The owner or operator has a written plan that requires inspection of the equipment at | | [40 CFR 63.1259(i)(5)]. | |
| | least once every 5 years. [40 CFR 63.1258(h)(7)] | | | |

Batch Process: BP29 Batch Manufacturing of Pharmaceutical Products

Operating Scenario: OS Summary

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|--|---|
| 1 | STACK TESTING SUMMARY The permittee shall conduct a stack test no later than every five years from the last stack test using an approved protocol to demonstrate compliance with HAP Destruction and Removal Efficiency >= 95% from CD290601 and CD290102. Testing every 5 years shall be defined as no later than the end of the 60th month after the first required and each subsequent stack test was completed for the new or modified source. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. [N.J.A.C. 7:27-22.16(a)] | Other: Monitoring as required under the applicable operating scenario(s).[N.J.A.C. 7:27-22.16(o)]. | Other: Recordkeeping as required under the applicable operating scenario(s).[N.J.A.C. 7:27-22.16(o)]. | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 no later than 12 months prior to the completion of the five year period since the last stack test. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: http://www.epa.gov/ttnchie1/ert. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-530-4041 to schedule a mutually acceptable test date. A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)] |
| 2 | Destruction and Removal Efficiency >= 95 % for HAPs for CD290601 and CD290102. [40 CFR 63.1254(a)(1)] | Destruction and Removal Efficiency: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See applicable requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)] | Destruction and Removal Efficiency: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See applicable requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See applicable requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|--|---|
| 3 | VOC Destruction and Removal Efficiency of Ventilation System >= 95 % for CD290601 and CD230102. [N.J.A.C. 7:27-22.16(a)] | VOC Destruction and Removal Efficiency of Ventilation System: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)] | VOC Destruction and Removal Efficiency of Ventilation System: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements OS Summary. [N.J.A.C. 7:27-22.16(o)] |
| 4 | The exit stream shall pass through thermal oxidizer (CD290601) for HAPs and then through the scrubber (CD290102) for HCl. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 5 | Scrubbing Medium Flow Rate >= 800 gal/min for CD290102. [N.J.A.C. 7:27-22.16(a)] | Scrubbing Medium Flow Rate: Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(e)] | Scrubbing Medium Flow Rate: Recordkeeping by manual logging of parameter or storing data in a computer data system every 15 minutes. In the event that the flow rate measurements drops below the minimum required flow rate, the permittee may comply with this requirement by calculating a 15-minute block average. [N.J.A.C. 7:27-22.16(e)] | None. |
| 6 | pH >= 7 standard units of the scrubber liquid effluent for CD290102. [N.J.A.C. 7:27-22.16(a)] | pH: Monitored by pH instrument once per shift during operation. The permittee shall monitor the effluent scrubber liquid from scrubber CD290102. [N.J.A.C. 7:27-22.16(o)] | pH: Recordkeeping by manual logging of parameter or storing data in a computer data system every 15 minutes of the effluent scrubber liquid from the scrubber CD290102. In the event, the pH drops below the minimum required pH, the permittee may comply with this requirement by calculating a one hour block average. [N.J.A.C. 7:27-22.16(o)] | None. |
| 7 | Pressure Drop Across the Scrubber >= 0.5 inches w.c. for CD290102. [N.J.A.C. 7:27-22.16(e)] | Pressure Drop Across the Scrubber: Monitored by pressure drop instrument continuously. [N.J.A.C. 7:27-22.16(e)] | Pressure Drop Across the Scrubber: Recordkeeping by manual logging of parameter or storing data in a computer data system every 15 minutes. In the event the pressure drop drops below the minimum required pressure drop, the permittee may comply with this requirement by calculating a 15-minute block average. [N.J.A.C. 7:27-22.16(o)] | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|--|---|
| 8 | Temperature at Exit of Combustion Chamber >= 1,500 degrees F for CD290601, except during startup, shutdown, and malfunction. [N.J.A.C. 7:27-22.16(a)] | Temperature at Exit of Combustion Chamber: Monitored by temperature instrument continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(e)] | Temperature at Exit of Combustion Chamber: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)] | None. |
| 9 | CO <= 50 ppmvd uncorrected for O2 concentrations in the flue gas for PT290002, except during startup, shutdown, and malfunction. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. The permittee shall install, operate and maintain a device to continuously monitor and record the concentration of oxygen in the stack PT290002. [N.J.A.C. 7:27-22.16(e)] | CO: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)] | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)] |
| 10 | Any person subject to the record keeping provision of N.J.A.C. 7:27-16 shall maintain the required records for a period of no less than five years and shall make those records available upon request of the Department or the EPA, or any duly authorized representative of the Department or the EPA. [N.J.A.C. 7:27-16.22(a)] | None. | None. | None. |
| 11 | Utilize procedures for each batch operating scenario that ensures compliance with the emission limits (pounds per batch and pounds per step) specified for each pollutant in the batch scenario STO Summary and the Potential To Emit tables for each scenario step, respectively. [N.J.A.C. 7:27-22.16(a)] | Other: Perform calculations to demonstrate that adherence to the batch scenario procedure assures compliance with the emission limits (pounds per batch and pounds per step) contained in the batch scenario STO Summary and the Potential To Emit tables for each scenario step, respectively. Once initially and with each procedure revision. If calculations are not performed, document reason(s) calculations were not necessary to demonstrate continued compliance.[N.J.A.C. 7:27-22.16(o)]. | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency : Maintain all batch scenario procedure revisions and the calculations that demonstare adherence with emission limits or documentation of why calculations were not necessary. Once initially and for each procedure revision. [N.J.A.C. 7:27-22.16(o)] | None. |

BP29 Batch Manufacturing of Pharmaceutical Products

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|---|------------------------------|
| 12 | Maintain records of each batch process. [N.J.A.C. 7:27-22.16(a)] | None. | Recordkeeping by manual logging of parameter or storing data in a computer data system once per batch during operation. Maintain batch procedures and production records for each batch on site for at least 5 years. The records will be made available upon request of the Department. [N.J.A.C. 7:27-22.16(o)] | None. |
| 13 | VOC (Total) < 5 tons/yr for any single source (piece of equipment) in any equipment set. [N.J.A.C. 7:27-22.16(a)] | VOC (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The permittee shall calculate the VOC emissions from each batch product or process to determine that the total VOC emissions from BP29 are below 5 ton/yr or each piece of equipment to demonstrate that the VOC emissions are less than 5 tons/year from each piece of equipment individually. [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. The permittee shall maintain a copy of the calculations and records to demonstrates the total VOC emissions/yr from each piece of equipment. [N.J.A.C. 7:27-22.16(o)] | None. |
| 14 | Raw materials to be used in BP29 is limited to the following: non-HAP VOCs and the following HAPs: Polycyclic Organic Matter, Benzyl Chloride, Cyanide Compounds, Dimethyl Sulfate, Dichloroethane, Hexamethylphosphoramide, acetaldehyde, acentonitrile, aniline, chloroacetonitrile, cyanamide, cyanophenol, dimethyl formamide, ethylene glycol dimethyl ether, hydrochloric acid, methanol, methyl ethyl ketone, methyl iso-butyl ketone, methyl tert-butyl ether, methylene chloride, toluene, and triethylamine, Hexane, Toluene-Sulfonylisocyanide, Xylene, Gyanogen Bromide, Methyl Vinyl Ketone, Formaldehyde, 1,4-Dioxane and non-HAP TSP & PM-10, acetone, hydrogen peroxide, hydrogen and NOx. [N.J.A.C. 7:27-22.16(e)] | None. | Other: Maintain batch procedures and production records for each batch on site for at least 5 years. The records will be made available upon request of the Department. In the event that a new raw material is used, a permit modification will be required prior to its use only if the material is a new pollutant category or a HAP as defined at 40 CFR 63.1(a)(2).[N.J.A.C. 7:27-22.16(o)]. | None. |

| | | | • | |
|-------|---|---|--|--|
| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
| 15 | VOC (Total) <= 23.4 tons/yr. [N.J.A.C. 7:27-22.16(a)] | VOC (Total): Monitored by calculations annually. By January 31, the permittee shall calculate VOC emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(0)] |
| 16 | TSP <= 2.66 tons/yr. [N.J.A.C. 7:27-22.16(e)] | TSP: Monitored by calculations annually. By January 31, the permittee shall calculate TSP emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 17 | PM-10 (Total) <= 1.65 tons/yr. [N.J.A.C. 7:27-22.16(e)] | PM-10 (Total): Monitored by calculations annually. By January 31, the permittee shall calculate PM-10 emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 18 | PM-2.5 (Total) <= 1.65 tons/yr. [N.J.A.C. 7:27-22.16(o)] | PM-2.5 (Total): Monitored by calculations annually. By January 31, the permittee shall calculate PM-2.5 emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 19 | NOx (Total) <= 8.5 tons/yr. [N.J.A.C. 7:27-22.16(a)] | NOx (Total): Monitored by calculations annually. By January 31, the permittee shall calculate NOx emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 20 | CO <= 43 tons/yr. [N.J.A.C. 7:27-22.16(a)] | CO: Monitored by calculations annually. By January 31, the permittee shall calculate CO emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|--|--|
| 21 | HAPs (Total) <= 11.41 tons/yr. [N.J.A.C. 7:27-22.16(a)] | HAPs (Total): Monitored by calculations annually. By January 31, the permittee shall calculate HAP emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | HAPs (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 22 | Acetonitrile <= 8 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Acetonitrile: Monitored by calculations annually. By January 31, the permittee shall calculate acetonitrile emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Acetonitrile: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 23 | Methylene chloride (Dichloromethane) <= 3.48 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Methylene chloride (Dichloromethane): Monitored by calculations annually. By January 31, the permittee shall calculate methylene chloride emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Methylene chloride (Dichloromethane): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 24 | Hydrogen chloride <= 0.75 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Hydrogen chloride: Monitored by calculations annually. By January 31, the permittee shall calculate hydrogen chloride emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Hydrogen chloride: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(0)] | Submit a report: Every April 1 for the previous year. The Dual Plant Permit Emissions Summary-Batch Plant Report shall be submitted to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 25 | Formaldehyde <= 0.025 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Formaldehyde: Monitored by calculations annually. By January 31, the permittee shall calculate formaldehyde emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(0)] | Submit a report: Every April 1 for the previous year. The Dual Plant Permit Emissions Summary-Batch Plant Report shall be submitted to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 26 | Chlorine <= 0.03 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Chlorine: Monitored by calculations annually. By January 31, the permittee shall calculate chlorine emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Chlorine: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(0)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|--|--|
| 27 | Chloroacetonitrile <= 8 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Monitored by calculations annually. By January 31, the permittee shall calculate chloroacetonitrile emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 28 | Cyanamide <= 8 tons/yr . [N.J.A.C. 7:27-22.16(a)] | Monitored by calculations annually. By January 31, the permittee shall calculate cyanamide emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 29 | 4-Cyanophenol <= 8 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Monitored by calculations annually. By January 31, the permittee shall calculate 4-cyanophenol emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 30 | Dimethyl formamide (N, N-) <= 8 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Dimethyl formamide (N, N-): Monitored by calculations annually. By January 31, the permittee shall calculate dimethyl formamide emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Dimethyl formamide (N, N-): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 31 | Ethylene Glycol Dimethyl Ether: <= 8.0 tons per year. [N.J.A.C. 7:27-22.16(a)] | Monitored by calculations annually. By January 31, the permittee shall calculate ethylene glycol dimethyl ether emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 32 | Hexane (n-) <= 8 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Hexane (n-): Monitored by calculations annually. By January 31, the permittee shall calculate hexane emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Hexane (n-): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|---|--|
| 33 | Methyl alcohol (Methanol) <= 8 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Methyl alcohol (Methanol): Monitored by calculations annually. By January 31, the permittee shall calculate methyl alchohol emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Methyl alcohol (Methanol): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 34 | Methyl ethyl ketone (MEK) <= 8 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Methyl ethyl ketone: Monitored by calculations annually. By January 31, the permittee shall calculate methyl ethyl ketone emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Methyl ethyl ketone: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 35 | Methyl isobutyl ketone (MIBK) <= 8 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Methyl isobutyl ketone (MIBK): Monitored by calculations annually. By January 31, the permittee shall calculate methyl isobutyl ketone emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Methyl isobutyl ketone (MIBK): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 36 | Methyl tert-butyl ether <= 8 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Methyl tert-butyl ether: Monitored by calculations annually. By January 31, the permittee shall calculate methyl tert-butyl ether emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Methyl tert-butyl ether: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 37 | Toluene <= 8 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Toluene: Monitored by calculations annually. By January 31, the permittee shall calculate toluene emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Toluene: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(0)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |
| 38 | Triethylamine <= 8 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Triethylamine: Monitored by calculations annually. By January 31, the permittee shall calculate triethylamine emissions for each calendar month of the preceding year and each consecutive twelve month period. [N.J.A.C. 7:27-22.16(o)] | Triethylamine: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary - Totals for Dual Operations (NJEMS-04) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|--|------------------------------|
| 39 | The owner or operator shall develop a QA/QC plan for all CEMS/COMS required by this permit prepared in accordance with the NJDEP Technical Manual 1005 posted on the AQPP webpage at http://www.state.nj.us/dep/aqpp. [N.J.A.C. 7:27-22.16(a)] | Other: The QA/QC coordinator shall be responsible for reviewing the QA/QC plan on an annual basis.[N.J.A.C. 7:27-22.16(o)]. | Other: Maintain readily accessible records of the QA/QC plan including QA date and quarterly reports.[N.J.A.C. 7:27-22.16(o)]. | None. |

Batch Process: BP29 Batch Manufacturing of Pharmaceutical Products

Operating Scenario: OS1 Pharmaceutical Production vented to the Thermal Oxidizer/Scrubber

Step:

Step Summary

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|------------------------------|
| 1 | VOC (Total) <= 120 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 2 | Acetonitrile <= 3.83 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 3 | Chlorine <= 2.84 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 4 | Formaldehyde <= 0.62 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 5 | Hydrogen chloride <= 76.6 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 6 | Methyl alcohol (Methanol) <= 9.53 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 7 | Methyl ethyl ketone (MEK) <= 3.21 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 8 | Methyl tert-butyl ether <= 7.33 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 9 | Methylene chloride (Dichloromethane) <= 56.6 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 10 | Toluene <= 3.11 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 11 | Triethylamine <= 3.19 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 12 | Xylene <= 3.09 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 13 | TSP <= 0.5 lb/hr based on 0.02 grains per SCF. [N.J.A.C. 7:27- 6.2(a)] | None. | None. | None. |
| 14 | Opacity <= 20 %, exclusive of condensed water vapor for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] &. [N.J.A.C. 7:27-6.2(e)] | None. | None. | None. |

BP29 Batch Manufacturing of Pharmaceutical Products

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|---|------------------------------|
| 15 | VOC (Total) <= 3.5 lb/hr. [N.J.A.C. 7:27-16.16(c)] | VOC (Total): Monitored by calculations at the approved frequency per each different kind of batch, the actual emission rate for each process. [N.J.A.C. 7:27-16.16(g)1] | VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee shall maintain the records for each different kind of batch operation: 1) The chemical name and vapor pressure of VOC emitted from each source operation, 2) The percent concentration by volume of VOC in the source gas, 3) The volumetric gas flow rate, 4) The source gas range classification, 5) The maximum allowable emission rate; 6) The maximum actual emission rate. 7) The total batch cycle time for each batch. The batch cycle time is the total elasped time per batch in any single manufacturing vessel, including all phases of operation during which the vessel contains process materials and excluding time waiting for removal of material from the vessel 8) Maintain calculations and any test data used to determine the actual emission rate for each process. 9) If the source operation is used for more than one process, record the dates on which the source operation is used for each process. . [N.J.A.C. 7:27-16.16(g)1] | None. |
| 16 | TSP <= 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

Batch Process: BP29 Batch Manufacturing of Pharmaceutical Products

Operating Scenario: OS3 Pharmaceutical Production in the GMP Building

Step: Step Summary

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|------------------------------|
| 1 | VOC (Total) <= 743 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 2 | Methylene chloride (Dichloromethane) <= 0.51 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 3 | TSP <= 0.5 lb/hr based on 0.02 grains per SCF. [N.J.A.C. 7:27- 6.2(a)] | None. | None. | None. |
| 4 | Opacity <= 20 %, exclusive of condensed water vapor for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] &. [N.J.A.C. 7:27- 6.2(e)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|---|------------------------------|
| 5 | VOC (Total) <= 3.5 lb/hr. [N.J.A.C. 7:27-16.16(c)] | VOC (Total): Monitored by calculations at the approved frequency per each different kind of batch, the actual emission rate for each process. [N.J.A.C. 7:27-16.16(g)1] | VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee shall maintain the records for each different kind of batch operation: 1) The chemical name and vapor pressure of VOC emitted from each source operation, 2) The percent concentration by volume of VOC in the source gas, 3) The volumetric gas flow rate, 4) The source gas range classification, 5) The maximum allowable emission rate; 6) The maximum actual emission rate. 7) The total batch cycle time for each batch. The batch cycle time is the total elasped time per batch in any single manufacturing vessel, including all phases of operation during which the vessel contains process materials and excluding time waiting for removal of material from the vessel 8) Maintain calculations and any test data used to determine the actual emission rate for each process. 9) If the source operation is used for more than one process, record the dates on which the source operation is used for each process. . [N.J.A.C. 7:27-16.16(g)1] | None. |
| 6 | TSP <= 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 7 | The provisions of 40 CFR Part 63, Subpart GGG do not apply to research and development facility as defined under 40 CFR 63.1251. [40 CFR 63.1250(d)] | None. | None. | None. |

Batch Process: BP29 Batch Manufacturing of Pharmaceutical Products **Operating Scenario: OS4** Cleaning of Pharmaceutical Production Equipment Step:

Step Summary

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|----------------------------------|------------------------------|
| 1 | VOC (Total) <= 6.5 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 2 | Methyl alcohol (Methanol) <= 6.5 lb/batch. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 3 | TSP <= 0.5 lb/hr based on 0.02 grains per SCF. [N.J.A.C. 7:27- 6.2(a)] | None. | None. | None. |
| 4 | Opacity <= 20 %, exclusive of condensed water vapor for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] &. [N.J.A.C. 7:27- 6.2(e)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|---|------------------------------|
| 5 | VOC (Total) <= 3.5 lb/hr. [N.J.A.C. 7:27-16.16(c)] | VOC (Total): Monitored by calculations at the approved frequency per each different kind of batch, the actual emission rate for each process. [N.J.A.C. 7:27-16.16(g)1] | VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee shall maintain the records for each different kind of batch operation: 1) The chemical name and vapor pressure of VOC emitted from each source operation, 2) The percent concentration by volume of VOC in the source gas, 3) The volumetric gas flow rate, 4) The source gas range classification, 5) The maximum allowable emission rate; 6) The maximum actual emission rate. 7) The total batch cycle time for each batch. The batch cycle time is the total elasped time per batch in any single manufacturing vessel, including all phases of operation during which the vessel contains process materials and excluding time waiting for removal of material from the vessel 8) Maintain calculations and any test data used to determine the actual emission rate for each process. 9) If the source operation is used for more than one process, record the dates on which the source operation is used for each process. . [N.J.A.C. 7:27-16.16(g)1] | None. |
| 6 | TSP <= 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

Batch Process:BP29 Batch Manufacturing of Pharmaceutical ProductsOperating Scenario:OS5 Pilot Plant OperationsStep:Step Summary

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|--|------------------------------|
| 1 | TSP: No person shall cause, suffer, allow or permit particles to be emitted through any stack or chimney into the outside air in excess of the maximum allowable emission rate based on either 99% efficiency of collection or 0.02 grains per SCF as determined under [N.J.A.C. 7:27- 6.2(a)] | TSP: Monitored by calculations at the approved frequency per each different kind of batch. [N.J.A.C. 7:27-22.16(o)] | TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency for each different kind of batch. The permittee shall maintain records of the batch process operations and the following information: 1) The potential emission rate of particles from the batch operation and/or 2) The volumetric flow rate of the source gas emitted from the batch operation. 3) The maximum allowable emission rate of the particles based on 99% efficiency of collection or allowable emission rate of particles based on 0.02 grains per SCF. 4) The maximum actual emission rate of the particles from the batch operation. [N.J.A.C. 7:27- 6.2(a)] | None. |
| 2 | Opacity <= 20 %, exclusive of condensed water vapor for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] &. [N.J.A.C. 7:27- 6.2(e)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|---|------------------------------|
| 3 | VOC (Total) <= 3.5 lb/hr. [N.J.A.C. 7:27-16.16(c)] | VOC (Total): Monitored by calculations at the approved frequency for each different kind of batch operation, the actual emission rate of each process. [N.J.A.C. 7:27-16.16(g)1] | VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee shall maintain the records for each different kind of batch operation: 1) The chemical name and vapor pressure of VOC emitted from each source operation, 2) The percent concentration by volume of VOC in the source gas, 3) The volumetric gas flow rate, 4) The source gas range classification, 5) The maximum allowable emission rate; 6) The maximum actual emission rate. 7) The total batch cycle time for each batch. The batch cycle time is the total elasped time per batch in any single manufacturing vessel, including all phases of operation during which the vessel contains process materials and excluding time waiting for removal of material from the vessel 8) Maintain calculations and any test data used to determine the actual emission rate for each process. 9) If the source operation is used for more than one process, record the dates on which the source operation is used for each process. . [N.J.A.C. 7:27-16.16(g)1] | None. |
| 4 | Commercial manufacturing in the pilot plant shall be limited to 90 product days per calendar year as described in the Pilot Plant Permitting Procedure. Commercial manufacturing in the pilot plant is subject to management oversight and approval procedures including management certification of the Post-Experiment Review Form. Commercial manufacturing in the pilot plant shall not take place if such production will cause emissions to the atmosphere of any pollutant not approved in this Permit. [N.J.A.C. 7:27-22.16(e)] | None. | Recordkeeping by production records upon request of the Department. The permittee shall maintain records of commercial manufacturing operations conducted in the pilot plant. The on-site records shall include the product name, and date of manufacture and the number of product days used. [N.J.A.C. 7:27-22.16(e)] | None. |

BP29 Batch Manufacturing of Pharmaceutical Products

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|---|---|
| 5 | The permittee shall maintain Post-Experiment Forms (NJEMS-01) for each experiment, at the facility. [N.J.A.C. 7:27-22.16(e)] | Monitored by calculations upon occurrence of event. The permittee shall use the Post-Experiment Review Form (NJEMS-01) for the pilot plant operations as outlined in the Procedure. The emissions from the experiments shall be included in the annual report for the year in which the experiment was completed. The emissions from said experiences shall be prorated for reporting purposes. The balance of the emissions shall be reported in the next annual report that the experiment was completed in and included in the totals for the annual report for that year. [N.J.A.C. 7:27-22.16(e)] | Recordkeeping by production records upon occurrence of event prior to and after each experiment. [N.J.A.C. 7:27-22.16(e)] | None. |
| 6 | Raw materials to be used in the Pilot plant operations are limited to the materials listed below: non-HAP VOCs and the following HAPs: Polycyclic Organic Matter, Benzyl Chloride, Cyanide Compounds, Dimethyl Sulfate, Dichloroethane, Hexamethylphosphoramide, acetaldehyde, acentonitrile, aniline, chloroacetonitrile, cyanamide, cyanophenol, dimethyl formamide, ethylene glycol dimethyl ether, hydrochloric acid, methanol, methyl ethyl ketone, methyl iso-butyl ketone, methyl tert-butyl ether, methylene chloride, toluene, and triethylamine, Hexane, Toluene-Sulfonylisocyanide, Xylene, Formaldehyde, 1,4-Dioxane and non-HAP TSP & PM-10, acetone, hydrogen peroxide, hydrogen and NOx. [N.J.A.C. 7:27-22.16(a)] | None. | Other: Maintain batch procedures and production records for each batch on site for at least 5 years. The records will be made available upon request of the Department. In the event that a new raw material is used a permit modification will be required prior to its use if the material is a new pollutant category or is a HAPas defined at 40 CFR 63.1(a)(2).[N.J.A.C. 7:27-22.16(o)]. | None. |
| 7 | VOC (Total) <= 2.5 tons/yr. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by calculations quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Quarterly. Calculate the total VOC emissions at the end of each quarter and the year. [N.J.A.C. 7:27-22.16(o)] | Submit a report: Every April 1 for the previous year. Complete and submit the Dual Plant Permit Emissions Summary-Pilot Plant Report Report (NJEMS-02) to the Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(o)] |

New Jersey Department of Environmental Protection

Facility Specific Requirements

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|---|---|
| 8 | TSP <= 0.4 tons/yr. [N.J.A.C. 7:27-22.16(e)] | TSP: Monitored by calculations quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. [N.J.A.C. 7:27-22.16(o)] | TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Quarterly. Calculate the total methylene chloride emissions at the end of each quarter and the year. [N.J.A.C. 7:27-22.16(o)] | . Complete and submit the Dual Plant Permit Emissions Summary-Pilot Plant Report Report (NJEMS-02) to the Southern Regional Enforcement Office. Submit a report: Every April 1 for the previous year. [N.J.A.C. 7:27-22.16(0)] |
| 9 | PM-10 (Total) <= 0.4 tons/yr. [N.J.A.C. 7:27-22.16(o)] | PM-10 (Total): Monitored by calculations quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. [N.J.A.C. 7:27-22.16(o)] | PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Quarterly. Calculate the total methylene chloride emissions at the end of each quarter and the year. [N.J.A.C. 7:27-22.16(o)] | . Complete and submit the Dual Plant Permit Emissions Summary-Pilot Plant Report Report (NJEMS-02) to the Southern Regional Enforcement Office. Submit a report: Every April 1 for the previous year. [N.J.A.C. 7:27-22.16(o)] |
| 10 | PM-2.5 (Total) <= 0.4 tons/yr. [N.J.A.C. 7:27-22.16(o)] | PM-2.5 (Total): Monitored by calculations quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. [N.J.A.C. 7:27-22.16(o)] | PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Quarterly. Calculate the total methylene chloride emissions at the end of each quarter and the year. [N.J.A.C. 7:27-22.16(o)] | . Complete and submit the Dual Plant Permit Emissions Summary-Pilot Plant Report Report (NJEMS-02) to the Southern Regional Enforcement Office. Submit a report: Every April 1 for the previous year. [N.J.A.C. 7:27-22.16(o)] |

Emission Unit: U47 Emergency Generator Pharmaceutical Plant

Operating Scenario: OS Summary

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|---|------------------------------|
| 1 | Opacity <= 20 %. Smoke emissions from stationary internal combustion engines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5] | None. | None. | None. |
| 2 | Opacity <= 10 %. Smoke emissions no greater than 10% opacity, exclusive of visible condensed water vapor. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 3 | Sulfur Content in Fuel <= 2,000 ppmw (0.2% by weight) for Zone 3. Effective through June 30, 2014. [N.J.A.C. 7:27- 9.2(b)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(0)] | None. |
| 4 | Sulfur Content in Fuel <= 500 ppmw (0.05% by weight) for Zone 3. Effective from July 1, 2014 through June 30, 2016. [N.J.A.C. 7:27- 9.2(b)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(0)] | None. |
| 5 | Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight) for Zone 3. Effective after July 1, 2016. [N.J.A.C. 7:27-9.2(b)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(0)] | None. |
| 6 | Generator fuel limited to diesel fuel. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 7 | Hours of Operation <= 500 hr/yr. [N.J.A.C. 7:27-22.16(e)] | Hours of Operation: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(e)] | Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation the total operating time from the generator's hour meter. [N.J.A.C. 7:27-19.11] | None. |
| 8 | Maximum Gross Heat Input <= 2.34 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|------------------------------|
| 9 | VOC (Total) <= 0.2 tons/yr. Annual emission limit based on 500 hours/year of operation. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 10 | NOx (Total) <= 2.47 tons/yr. Annual emission limit based on 500 hours/year of operation. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 11 | CO <= 0.53 tons/yr. Annual emission limit based on 500 hours/year of operation. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 12 | SO2 <= 0.16 tons/yr. Annual emission limit based on 500 hours/year of operation. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 13 | TSP <= 0.18 tons/yr. Annual emission limit based on 500 hours/year of operation. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 14 | PM-10 (Total) <= 0.18 tons/yr. Annual emission limit based on 500 hours/year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|------------------------------|
| 15 | This emergency generator shall not be used: | None. | None. | None. |
| | 1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at http://airnow.gov/, as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available at the Department's air quality permitting web site at http://www.state.nj.us/dep/aqpp/aqforecast; and | | | |
| | 2. As a source of energy or power after the primary energy or power source has become operable again. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)] | | | |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|---|------------------------------|
| 16 | The emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility. This emergency generator shall be operated only: 1. During the performance of normal testing and maintenance procedures, as recommended in writing by the manufacturer and/or as required in writing by a Federal or State law or regulation, 2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or 3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu. [N.J.A.C. 7:27-19.1] | None. | Other: The Permittee shall maintain on site and record in a logbook or computer data system, the following information if maximum rated output is 37 kW or greater: 1. For each time the emergency generator is specifically operated for testing or maintenance: i. The reason for its operation; ii. The date(s) of operation and the start up and shut down time; iii. The total operating time for testing or maintenance based on the generator's hour meter; and iv. The name of the operator; and 2. If a voltage reduction is the reason for the use of the emergency generator, a copy of the voltage reduction notification from PJM or other documentation of the voltage reduction. [N.J.A.C. 7:27-19.11]. | None. |
| 17 | The owner or operator of an emergency CI RICE <= 500 HP or black start CI RICE constructed or reconstructed before June 12, 2006 shall change oil and filter every 500 hours of operation or annually, whichever comes first, as prescribed in Table 2c, item 1a to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6602] | Other: The owner or operator shall change oil and filter every 500 hours of operation or annually, whichever comes first. The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of the oil and filter change. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)(2)] | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|---|------------------------------|
| 18 | The owner or operator of an emergency CI RICE <= 500 HP or black start CI RICE constructed or reconstructed before June 12, 2006 shall inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary, as prescribed in Table 2c, item 1b and 1c to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6602] | Other: The owner or operator shall inspect air cleaner every 1000 hours or annually, whichever comes first and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first. The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of the maintenance procedures and air cleaner, belt and hoses replacements events. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)(2)] | None. |
| 19 | The engine must be in compliance with all applicable emission limitations and operating limitations in Subpart ZZZZ of 40 CFR 63 at all times. [40 CFR 63.6605(a)] | None. | None. | None. |
| 20 | At all times the owner or operate must operate and maintain a RICE, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.6605(b)] | None. | None. | None. |
| 21 | An owner or operator of an existing stationary emergency or black start RICE must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or the owner or operator must develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)] | Other: Monitored according to the manufacturer's emission-related written instructions or the maintenance plan developed by the owner or operator. [40 CFR 63.6625(e)]. | Other: The owner or operator must keep records of the maintenance procedures. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)]. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|---|------------------------------|
| 22 | The owner or operator must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h)] | Other: The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Other: The owner or operator must keep records of the maintenance procedures and replacements events. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)]. | None. |
| 23 | For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year as allowed in 40 CFR 63.6640(f)(1)(iii), is prohibited. [40 CFR 63.6640(f)(1)] | Monitored by hour/time monitor continuously. The owner or operator of an emergency stationary internal combustion engine must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)] | Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The owner or operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [40 CFR 63.6655(f)(1)] | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|---|------------------------------|
| 24 | The owner or operator may operate an emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. The owner or operator may operate an emergency situations as allowed by 40 CFR 63.6640(f)(1)(iii) but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. [40 CFR 63.6640(f)(1)] | Monitored by hour/time monitor continuously. The owner or operator of an emergency stationary internal combustion engine must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)] | Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The owner or operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [40 CFR 63.6655(f)(1)] | None. |
| 25 | The owner or operator shall comply with the General Provisions as shown in Table 8 to Subpart ZZZZ of 40 CFR 63 that apply to an existing emergency CI RICE <= 500 HP or black start RICE constructed or reconstructed before June 12, 2006 and located at a major source of HAP. [40 CFR 63.6665] | None. | None. | None. |

Emission Unit: U47 Emergency Generator Pharmaceutical Plant

Operating Scenario: OS1 Diesel Fired Emergency Generator - Pharmaceutical Materials Plant

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|---------------------------|------------------------------|
| 1 | TSP <= 1.4 lb/hr. [N.J.A.C. 7:27- 4.2(a)] | None. | None. | None. |
| 2 | VOC (Total) <= 0.24 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 3 | NOx (Total) <= 3.93 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 4 | CO <= 0.55 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 5 | SO2 <= 0.15 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 6 | TSP <= 0.73 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

Emission Unit: U50 Emergency Generator Pharmaceutical Matl.

Operating Scenario: OS Summary

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|--|------------------------------|
| 1 | Opacity <= 20 %. Smoke emissions from stationary internal combustion engines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5] | None. | None. | None. |
| 2 | Sulfur Content in Fuel <= 2,000 ppmw (0.2% by weight) for Zone 3. Effective through June 30, 2014. [N.J.A.C. 7:27- 9.2(b)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)] | None. |
| 3 | Sulfur Content in Fuel <= 500 ppmw (0.05% by weight) for Zone 3. Effective from July 1, 2014 through June 30, 2016. [N.J.A.C. 7:27- 9.2(b)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)] | None. |
| 4 | Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight) for Zone 3. Effective after July 1, 2016. [N.J.A.C. 7:27-9.2(b)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)] | None. |
| 5 | Generator fuel limited to diesel fuel. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 6 | Hours of Operation <= 200 hr/yr. [N.J.A.C. 7:27-22.16(e)] | Hours of Operation: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(e)] | Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation the total operating time from the genertor's hour meter. [N.J.A.C. 7:27-19.11] | None. |
| 7 | Maximum Gross Heat Input <= 4.54 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 8 | VOC (Total) <= 0.038 tons/yr. Annual emission limit based on 200 hours/year of operation. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 9 | NOx (Total) <= 1.02 tons/yr. Annual emission limit based on 200 hours/year of operation. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |

U50 Emergency Generator Pharmaceutical Matl.

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|----------------------------------|------------------------------|
| 10 | CO <= 0.106 tons/yr. Annual emission limit based on 200 hours/year of operation. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 11 | SO2 <= 0.762 tons/yr. Annual emission limit based on 200 hours/year of operation. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 12 | TSP <= 0.022 tons/yr. Annual emission limit based on 200 hours/year of operation. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 13 | PM-10 (Total) <= 0.022 tons/yr. Annual emission limit based on 200 hours/year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 14 | This emergency generator shall not be used: 1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at http://airnow.gov/, as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available at the Department's air quality permitting web site at http://www.state.nj.us/dep/aqpp/aqforecast; and | None. | None. | None. |
| | 2. As a source of energy or power after the primary energy or power source has become operable again. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)] | | | |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|--|------------------------------|
| 15 | The emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility. This emergency generator shall be operated only: 1. During the performance of normal testing and maintenance procedures, as recommended in writing by the manufacturer and/or as required in writing by a Federal or State law or regulation, 2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or 3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu. [N.J.A.C. 7:27-19.1] | Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)] | Other: The Permittee shall maintain on site and record in a logbook or computer data system, the following information if maximum rated output is 37 kW or greater: 1. For each time the emergency generator is specifically operated for testing or maintenance: i. The reason for its operation; ii. The date(s) of operation and the start up and shut down time; iii. The total operating time for testing or maintenance based on the generator's hour meter; and iv. The name of the operator, a copy of the voltage reduction notification from PJM or other documentation of the voltage reduction. [N.J.A.C. 7:27-19.11]. | None. |
| 16 | Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions do not have to meet the requirements of MACT Subpart ZZZZ and subpart A, including initial notification requirements. [40 CFR 63.6590(b)(3)(iii)] | None. | None. | None. |

Emission Unit: U50 Emergency Generator Pharmaceutical Matl.

Operating Scenario: OS1 Emergency Generator 3 - Pharmaceutical Matl.

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|------------------------|---------------------------|------------------------------|
| 1 | TSP <= 2.72 lb/hr. [N.J.A.C. 7:27- 4.2(a)] | None. | None. | None. |
| 2 | VOC (Total) <= 1.63 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 3 | NOx (Total) <= 20.02 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 4 | CO <= 4.31 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 5 | SO2 <= 1.32 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 6 | TSP <= 1.41 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

Emission Unit:U51 Air Stripper for Waste Water

Operating Scenario: OS Summary

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|--|------------------------------|
| 1 | Opacity <= 20 %. No person shall cause, suffer, allow or permit particles to be emitted from any stack or chiminey into the outdoor air the shade or appearance of which is greater than 20 percent opacity, exclusive of condensed water vapor for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27- 6.2(d)] | None. | None. | None. |
| 2 | Any person subject to the record keeping provision of N.J.A.C. 7:27-16 shall maintain the required records for a period of no less than five years and shall make those records available upon request of the Department or the EPA, or any duly authorized representative of the Department or the EPA. [N.J.A.C. 7:27-16.22(a)] | None. | None. | None. |
| 3 | Total Material Transferred <= 9.125 MMgal/yr. [N.J.A.C. 7:27-22.16(a)] | Total Material Transferred: Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(o)] | Total Material Transferred: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Calculate the year to date gallons processed each month. [N.J.A.C. 7:27-22.16(o)] | None. |
| 4 | VOC (Total) <= 0.71 tons/yr. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |

Emission Unit: U51 Air Stripper for Waste Water

Operating Scenario: OS1 Air Stripper for Waste Water with Thermal Oxidizer

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|--|------------------------------|
| 1 | VOC (Total) <= 0.162 lb/hr. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 2 | TSP <= 0.5 lb/hr. Particulate emission limit based on 0.02 grains per SCF. [N.J.A.C. 7:27- 6.2(a)] | None. | None. | None. |
| 3 | VOC (Total) <= 2.5 lb/hr. [N.J.A.C. 7:27-16.16(f)] | Other: Conduct an analysis of the source operation, which demonstrates that under the worst case operating conditions that mximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with NJAC 7:27-16.16(c).[N.J.A.C. 7:27-16.16(g)1ii]. | Other: The permittee shall maintain sufficient records to demonstrate that the VOC emission rate of the source operation from actual operations does not exceed the VOC emission under worst case operating conditions.[N.J.A.C. 7:27-16.16(g)1ii]. | None. |
| 4 | TSP <= 0.05 lb/hr (below reporting threshold). [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

| Emission Unit: | U53 Storage Tanks |
|----------------------------|-------------------|
| Operating Scenario: | OS Summary |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|--|------------------------------|
| 1 | See the applicable requirements for CD290601 and CD290102 in BP29 OS Summary. [N.J.A.C. 7:27-22.16(a)] | Other: See the monitoring requirements for CD290102 and CD290601 in BP29 -OS Summary.[N.J.A.C. 7:27-22.16(o)]. | Other: See the recordkeeping requirements for CD290102 and CD290601 in BP29-OS Summary.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 2 | VOC (Total) <= 0.4 tons/yr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 3 | The permittee shall control all tank emissions with CD290601/CD290102 which reduce at least 95% by weight VOC and HAPs emissions to the atmosphere. [N.J.A.C. 7:27-16.2(b)1ii] | None. | None. | None. |
| 4 | The transfer of applicable VOC into any receiving vessel shall be made through a submerged fill pipe. [N.J.A.C. 7:27-16.4(b)] | None. | None. | None. |
| 5 | Table 1 of 40 CFR 63 Subpart GGG specifies and clarifies the provisions of subpart A of Part 63 that apply to an owner or operator of an affected source subject to 40 CFR Subpart GGG. The provisions of subpart A specified in Table 1 are the only provisions of subpart A that apply to an affected source subject to 40 CFR 63 Subpart GGG. [40 CFR 63.1250(c)] | None. | None. | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|--|---|
| 6 | The owner or operator of a storage tank shall equip the affected storage tank with a closed-vent system meeting the conditions of 40 CFR 63.1252(b) with a control device that meets any of the following conditions: 1) Reduces inlet emissions of total HAP by 90 percent by weight or greater; 2) Reduces emissions to outlet concentrations less than or equal to 20 ppmv as TOC and less than or equal to 20 ppmv as hydrogen halides and halogens; 3) Is an enclosed combustion device that provides a minimum residence time of 0.5 seconds at a minimum temperature of 760 C. [40 CFR 63.1253(b)] | Other: The owner or operator shall provide evidence of continued compliance with the standard as specified in 40 CFR 63.1258. During the initial compliance demonstration, maximum or minimum operating parameter levels, as appropriate, shall be established for emission sources that will indicate the source is in compliance. Test data, calculations, or information from the evaluation of the control device design shall be used to establish the operating parameter level.[40 CFR 63.1258(a)]. | Other: The owner or operator of an affected storage tank shall demonstrate initial compliance by a design evaluation, which shall be prepared in accordance with the provisions in paragraph (a)(1) of 40 CFR 63.1257. The design evaluation shall include documentation demonstrating that the control device being used achieves the required control efficiency during reasonably expected maximum filling rate.[40 CFR 63.1257(c)(2)]. | Submit a report: As per the approved schedule The owner or operator of an affected source shall comply with the reporting requirements of paragraphs 40 CFR 63.1260(b) through 40 CFR 63.1260(l). Applicable reporting requirements of 40 CFR 63.9 and 40 CFR 63.10 are also summarized in Table 1 of subpart GGG. [40 CFR 63.1260(a)] |
| 7 | Planned routine maintenance. The specifications and requirements in paragraphs 40 CFR 63.1253(b) through 40 CFR 63.1253(d) for control devices do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of the control devices (including CCCD subject to 40 CFR 63.1252(h)), during which the control device does not meet the specifications of paragraphs 40 CFR 63.1253(b) through 40 CFR 63.1253(d), as applicable, shall not exceed 240 hours in any 365-day period. [40 CFR 63.1253(e)] | None. | Other: The owner or operator must keep the following records up-to-date and readily accessible: Periods of planned routine maintenance as described in 40 CFR 63.1252(h) and 40 CFR 63.1257(c)(5).[40 CFR 63.1259(b)(10)]. | Obtain approval: Upon occurrence of event. The owner or operator may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hours in any 365-day period. The application must explain why the extension is needed, it must specify that no material will be added to the storage tank between the time the 240-hour limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hour limit will be exceeded. [40 CFR 63.1253(e)] |
| 8 | The owner or operator shall perform monthly visual inspections of each closed vent system as specified in 40 CFR 63.1252(b). [40 CFR 63.1258(b)(1)(xi)] | Monitored by visual determination each month during operation. [40 CFR 63.1258(b)(1)(xi)] | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Keep copies of all records and reports required by this subpart for at least 5 years, as specified in 40 CFR 63.10(b)(1). [40 CFR 63.1259(a)(1)] | None. |

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|------------------------|--|------------------------------|
| 9 | Records of extensions. The owner or operator shall keep documentation of a decision to use an extension, as specified in 40 CFR 63.1256(b)(6)(ii) or 40 CFR 63.1256(b)(9), in a readily accessible location. The documentation shall include a description of the failure, documentation that alternate storage capacity is unavailable, and specification of a schedule of actions that will ensure that the control equipment will be repaired and the tank will be emptied as soon as practical. [40 CFR 63.1259(h)] | None. | Other: Keep copies of all records required by this subpart for at least 5 years, as specified in 40 CFR 63.10(b)(1).[40 CFR 63.1259(a)(1)]. | None. |
| 10 | The owner or operator shall keep a record that each waste management unit inspection required by 40 CFR 63.1256(b) through 40 CFR 63.1256(f) was performed. [40 CFR 63.1259(i)(1)] | None. | Other: Keep copies of all records required by this subpart for at least 5 years, as specified in 40 CFR 63.10(b)(1).[40 CFR 63.1259(a)(1)]. | None. |
| 11 | See Subject Item GR30 for additional applicable requirements. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

Emission Unit:U53 Storage TanksOperating Scenario:OS1 Operation of Waste Solvent Tank, T-1115

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|--|------------------------------|
| 1 | Total Material Transferred <= 1.3 MMgal/yr. [N.J.A.C. 7:27-22.16(a)] | Total Material Transferred: Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(o)] | Total Material Transferred: Recordkeeping by data acquisition system (DAS) / electronic data storage each month during operation. The permittee shall also maintain records of the total material transferred during each consecutive 12-month period. [N.J.A.C. 7:27-22.16(o)] | None. |
| 2 | Tank Content is limited to acetone, acetonitrile, dimethyl formamide, ethylene glycol dimethyl ether, hexane, methanol, methylene chloride, MEK, MIBK, MTBE, toluene, triethylamine, and non-HAP VOC with a Vapor Pressure <= 4.74 psia @ 70 degrees F. [N.J.A.C. 7:27-22.16(a)] | None. | Vapor Pressure: Recordkeeping by manual logging of parameter or storing data in a computer data system per change of material. The permittee shall maintain records that specify each VOC stored and the vapor pressure of each VOC stored at standard conditions. [N.J.A.C. 7:27-16.2(s)1] | None. |

Emission Unit: U53 Storage Tanks

Operating Scenario:

cenario: OS2 Operation of Raw Materials Solvent Tank, T-1110, OS3 Operation of Raw Materials Solvent Tank, T-1111, OS4 Operation of Raw Materials Solvent Tank, T-1112, OS5 Operation of Raw Materials Solvent Tank T-1113, OS6 Operation of Raw Materials Solvent Tank T-1114, OS7 Operation of Raw Materials Solvent Tank T-1117, OS8 Operation of Raw Materials Solvent Tank T-1118

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|--|------------------------------|
| 1 | Total Material Transferred <= 1 MMgal/yr for OS2-OS8 combined (7 above ground storage tanks). [N.J.A.C. 7:27-22.16(a)] | Total Material Transferred: Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(o)] | Total Material Transferred: Recordkeeping by data acquisition system (DAS) / electronic data storage each month during operation. The permittee shall also maintain records of the total material transferred during each consecutive12-month period. [N.J.A.C. 7:27-22.16(o)] | None. |
| 2 | Tank Content is limited to acetone, acetonitrile, dimethyl formamide, ethylene glycol dimethyl ether, hexane, methanol, methylene chloride, MEK, MIBK, MTBE, toluene, triethylamine, and non-HAP VOC with a Vapor Pressure <= 4.74 psia @ 70 degrees F. [N.J.A.C. 7:27-22.16(a)] | None. | Vapor Pressure: Recordkeeping by manual logging of parameter or storing data in a computer data system per change of material. The permittee shall maintain records that specify each VOC stored and the vapor pressure of each VOC stored at standard conditions. [N.J.A.C. 7:27-16.2(s)1] | None. |

Emission Unit: U53 Storage Tanks

Operating Scenario: OS9 Operaation of Tote Filling from Raw Material Solvent Tanks

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|--|------------------------------|
| 1 | Total Material Transferred <= 444,444 gal/yr solvent throughput for tote filling operations for OS5-OS8. [N.J.A.C. 7:27-22.16(a)] | Total Material Transferred: Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(o)] | Total Material Transferred: Recordkeeping by data acquisition system (DAS) / electronic data storage each month during operation. The permittee shall also maintain records of the total material transferred during each consecutive12-month period. [N.J.A.C. 7:27-22.16(o)] | None. |

New Jersey Department of Environmental Protection Facility Specific Requirements

Emission Unit: U54 Intensification Footing System

Operating Scenario: OS Summary

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|--|------------------------------|
| 1 | Total Material Transferred <= 278,100 gal/yr. [N.J.A.C. 7:27-22.16(a)] | Total Material Transferred: Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(o)] | Total Material Transferred: Recordkeeping by data acquisition system (DAS) / electronic data storage each month during operation The permittee shall also maintain records of the total material transferred during each consecutive 12-month period. [N.J.A.C. 7:27-22.16(o)] | None. |
| 2 | Emissions of all pollutants are below the reporting thresholds set in Tables A and B in Appendix 1 of N.J.A.C. 7:27-22 [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

New Jersey Department of Environmental Protection Facility Profile (General)

Facility Name (AIMS): Veranova, LP

| Street | VERANOVA LP | |
|----------|--------------------|-------|
| Address: | 2003 NOLTE DR | |
| | WEST DEPTFORD TWP | |
| | PAULSBORO BORO, NJ | 08066 |

Mailing DAN MARKOWITZ Address: SITE DIRECTOR 2003 NOLTE DR PAULSBORO BORO, NJ 08066

Facility ID (AIMS): 56153

| State Plane Coordinates: | | | | |
|--------------------------|--|--|--|--|
| 293,085 | | | | |
| 359,150 | | | | |
| Feet | | | | |
| | | | | |
| NAD83 | | | | |
| DEP-GIS | | | | |
| GPS | | | | |
| | | | | |

County:GloucesterLocationPharmaceutical Materials and ServicesDescription:

Industry:

| Primary SIC: | 2834 |
|----------------|--------|
| Secondary SIC: | |
| NAICS: | 325412 |

New Jersey Department of Environmental Protection Facility Profile (General)

| Contact Type: Air Permit Information Contact | | | | | |
|---|---------------|--|---------------|--|--|
| Organization: Veranova LP | Org. Type: LP | | | | |
| Name: Peter Zahaczewsky | | NJ EIN: | 28128100000 | | |
| Title: Environmental Lead | | | | | |
| Phone: (856) 689-5226 x | Mailing | 2003 Nolte | | | |
| Fax: () - x | Address: | West Deptfo | ord, NJ 08066 | | |
| Other: (215) 939-3682 x | | | | | |
| Type: Mobile | | | | | |
| Email: Peter.Zahaczewsky@veranova.com | | | | | |
| Contact Type: Consultant | | | | | |
| Organization: Ramboll Americas Engineering Solution | ons Inc. | Org. Type: | Corporation | | |
| Name: Mikhil Shetty | | NJ EIN: | | | |
| Title: Senior Managing Consultant | | | | | |
| Phone: (314) 590-2975 x | Mailing | 1807 Park 270 Drive Suite 450 St Louis, MO 63146 | | | |
| Fax: () - x | Address: | | | | |
| Other: () - x | | St Louis, W | 0 00140 | | |
| Туре: | | | | | |
| Email: mshetty@ramboll.com | | | | | |
| Contact Type: Emission Statements | | | | | |
| Organization: Veranova LP | | Org. Type: | LP | | |
| Name: Peter Zahaczewsky | | NJ EIN: | 28128100000 | | |
| Title: Environmental Lead | | | | | |
| Phone: (856) 689-5226 x Mailin | | 2003 Nolte Drive | | | |
| Fax: () - x | Address: | West Deptford, NJ 08066 | | | |
| Other: (215) 939-3682 x | | | | | |
| Type: Mobile | | | | | |
| | | | | | |

Email: Peter.Zahaczewsky@veranova.com

New Jersey Department of Environmental Protection Facility Profile (General)

| Contact Type: Fees/Billing Contact | | |
|---------------------------------------|----------|----------------------------|
| Organization: Veranova LP | | Org. Type: LP |
| Name: Peter Zahaczewsky | | NJ EIN: 28128100000 |
| Title: Environmental Lead | | |
| Phone: (856) 689-5226 x | Mailing | 2003 Nolte Drive |
| Fax: () - x | Address: | West Deptford, NJ 08066 |
| Other: (215) 939-3682 x | | |
| Type: Mobile | | |
| Email: Peter.Zahaczewsky@veranova.com | | |
| Contact Type: General Contact | | |
| Organization: Veranova LP | | Org. Type: LP |
| Name: Peter Zahaczewsky | | NJ EIN: 28128100000 |
| Title: Environmental Lead | | |
| Phone: (856) 689-5226 x | Mailing | 2003 Nolte Drive |
| Fax: () - x | Address: | West Deptford, NJ 08066 |
| Other: (215) 939-3682 x | | |
| Type: Mobile | | |
| Email: Peter.Zahaczewsky@veranova.com | | |
| Contact Type: Operator | | |
| Organization: Veranova, L.P. | | Org. Type: LP |
| Name: Veranova, L.P. | | NJ EIN: 28128100000 |
| Title: N/A | | |
| Phone: (856) 689-5181 x Ma | | 2003 Nolte Drive |
| Fax: () - x | Address: | West Deptford, NJ 08066 |
| Other: () - x | | |
| Туре: | | |
| Email: n/a | | |

New Jersey Department of Environmental Protection Facility Profile (General)

| Contact Type: Owner (Current Primary) | | | | | | |
|---------------------------------------|---------------------|----------------------------|--|--|--|--|
| Organization: Veranova, L.P. | | Org. Type: LP | | | | |
| Name: Veranova, L.P. | | NJ EIN: 28128100000 | | | | |
| Title: N/A | | | | | | |
| Phone: (610) 971-3000 x | Mailing | 435 Devon Park Drive | | | | |
| Fax: () - x | Address: | Suite 600 | | | | |
| Other: () - x | | Wayne, PA 19087-1998 | | | | |
| Туре: | | | | | | |
| Email: Ross.Oehler@veranova.com | | | | | | |
| Contact Type: Responsible Official | | | | | | |
| Organization: Veranova, L.P. | | Org. Type: LP | | | | |
| Name: Dan Markowitz | | NJ EIN: 28128100000 | | | | |
| Title: Site Director | | | | | | |
| Phone: (856) 689-5141 x | Mailing | 2003 Nolte Drive | | | | |
| Fax: () - x | Mailing Address: | West Deptford, NJ 08066 | | | | |
| Other: () - x | | | | | | |
| Type: Other Line | | | | | | |
| Email: Daniel.Markowitz@veranova.com | | | | | | |

New Jersey Department of Environmental Protection Non-Source Fugitive Emissions

| FG NJID | Description of Activity Causing Emission | Location Description | Reasonable Estimate of Emissions (tpy) | | | | | | | | | |
|------------|--|-------------------------|--|-------|-------|-------|----------------|-------|-------|-----------------|------------------|--|
| | | | VOC (Total) | NOx | CO | SO | TSP (Total) | PM-10 | Pb | HAPS (Total) | Other (Total) | |
| FG1 | Paved Road Emissions | Facility-wide | 0.000 | 0.000 | 0.000 | 0.000 | 0.430 | 0.430 | 0.000 | 0.00000000 | 0.000 | |
| FG29 | Pharmaceutical Plant Leaks from Valves, Pumps, Connectors, etc. | Pharmaceutical Plant | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.25000000 | 0.000 | |
| | | | | | | | | | | | | |
| Total | | | 0.250 | 0.000 | 0.000 | 0.000 | 0.430 | 0.430 | 0.000 | 0.25000000 | 0.000 | |

New Jersey Department of Environmental Protection Insignificant Source Emissions

| IS | Source/Group Description | Equipment Type | Location Description | Estimate of Emissions (tpy) | | | | | | | | | |
|----------|---|--|---|-----------------------------|-------|-------|-------|-------|-------|------------|-----------------|------------------|--|
| NJID | | | | VOC (Total) | NOx | СО | SO | TSP | PM-10 | Pb | HAPS (Total) | Other (Total) | |
| IS99 | Laboratory Hoods (< 50 pounds per hour) | Other Equipment | Facility wide | 0.255 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.00000000 | 0.000 | |
| IS290001 | Pharmaceutical Tanks (<= 10,000 gallons non-applicabe VOC, <= 2,000 gallons VOC)) | Storage Vessel | T-403, T-508, T-509, T-711, T-401, T-402, T-510, T-855, T-2146, T-2148, T-2151, T-2337, T-2520, T-681 | 3.000 | 0.000 | 0.000 | 0.000 | 3.000 | 3.000 | 0.000 | 0.00000000 | 0.000 | |
| IS460001 | Jet Mills (<= 50 pounds per hour) | Manufacturing and Materials Handling Equipment | JM-100, JM-200, M-1051, M-900, M-901 | 0.000 | 0.000 | 0.000 | 0.000 | 1.250 | 1.250 | 0.000 | 0.00000000 | 0.000 | |
| IS460002 | Fitz and Quadro Mills (<=50 pounds per hour) | Manufacturing and Materials Handling Equipment | M-830, M-891, M-877, M-904, Q-100, M-976 | 0.000 | 0.000 | 0.000 | 0.000 | 1.500 | 1.500 | 0.000 | 0.00000000 | 0.000 | |
| IS460003 | Local Pick-up Points (<= 50 pounds per hour) | Other Equipment | Pharmaceutical Materials Division | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.000 | 0.0000000 | 0.000 | |
| Total | | | 3.255 | 0.000 | 0.000 | 0.000 | 6.250 | 6.250 | 0.000 | 0.00000000 | 0.000 | | |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|--------------------------------------|--|-----------------------|-----------------|--------------------|---------------------------|----------------------------------|
| E291101 | RJ-111 | BLDG 1: REACTOR RJ-111 (750 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 12/1/2000 | No | 7/4/2013 | ES291000 ES292000 ES296000 |
| E291102 | RJ-112 | BLDG 1: REACTOR RJ-112 (750 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 12/1/2000 | No | | ES291000 ES292000 ES296000 |
| E291103 | RJ-113 | BLDG 1: REACTOR RJ-113 (750 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 12/1/2000 | No | | ES291000 ES292000 ES296000 |
| E291104 | RJ-114 | BLDG 1: REACTOR RJ-114 (750 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 12/1/2000 | No | | ES291000 ES292000 ES296000 |
| E291105 | RJ-221 | BLDG 1: REACTOR RJ-221 (100 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 10/1/2000 | No | | ES291000 ES292000 ES296000 |
| E291106 | RJ-222 | BLDG 1: REACTOR RJ-222 (100 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 10/1/2000 | No | | ES291000 ES292000 ES296000 |
| E291107 | RJ-403 | BLDG 1: REACTOR RJ-403 (200 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 7/1/2015 | ES291000 ES292000 ES296000 |
| E291108 | RJ-404 | BLDG 1: REACTOR RJ-404 (250 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 7/1/2015 | ES291000 ES292000 ES296000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|--|--|-----------------------|-----------------|--------------------|---------------------------|----------------------------------|
| E291109 | RJ-405 | BLDG 1: REACTOR RJ-405 (750 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 ES296000 |
| E291110 | RJ-406 | BLDG 1: REACTOR RJ-406 (750 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 ES296000 |
| E291111 | RJ-407 | BLDG 1: REACTOR RJ-407 (1,500 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 ES296000 |
| E291112 | RJ-408 | BLDG 1: REACTOR RJ-408 (1,500 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 ES296000 |
| E291113 | RJ-423 | BLDG 1: REACTOR RJ-423 (500 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 3/1/2000 | No | 7/1/2015 | ES291000 ES292000 ES296000 |
| E291114 | RJ-424 | BLDG 1: REACTOR RJ-424 (500 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 3/1/2000 | No | 7/1/2015 | ES291000 ES292000 ES296000 |
| E291115 | RJ-701 | BLDG 1: REACTOR RJ-701 (2,000 GAL) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 ES296000 |
| E291116 | RJ-702 | BLDG 1: REACTOR RJ-702 (2,000 GAL) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 ES296000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|--|--|-----------------------|-----------------|--------------------|---------------------------|----------------------------------|
| E291117 | RJ-703 | BLDG 1: REACTOR RJ-703 (2,000 GAL) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 ES296000 |
| E291118 | RJ-704 | BLDG 1: REACTOR RJ-704 (2,000 GAL) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 ES296000 |
| E291119 | RJ-705 | BLDG 1: REACTOR RJ-705 (2,000 GAL) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 7/4/2013 | ES291000 ES292000 ES296000 |
| E291120 | RJ-706 | BLDG 1: REACTOR RJ-706 (2,000 GAL) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 ES296000 |
| E291201 | T-103 | BLDG 1: PROCESS VESSEL T-103 (1,000 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 |
| E291202 | T-104 | BLDG 1: PROCESS VESSEL T-104 (60 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 |
| E291203 | T-105 | BLDG 1: PROCESS VESSEL T-105 (500 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 |
| E291204 | T-125 | BLDG 1: PROCESS VESSEL T-125 (125 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|---|--|-----------------------|-----------------|--------------------|---------------------------|----------------------------------|
| E291205 | T-220 | BLDG 1: PROCESS VESSEL T-220 (100 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 |
| E291206 | T-978 | BLDG 1: PROCESS VESSEL T-978 (100 GAL.) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES292000 |
| E291207 | T-980 | BLDG 1: PROCESS VESSEL T-980 (100 GAL.) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES292000 |
| E291208 | T-985 | BLDG 1: PROCESS VESSEL T-985 (1,000 GAL.) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES292000 |
| E291209 | T-1303 | BLDG 1: PROCESS VESSEL T-1303 (100 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 |
| E291210 | T-1134 | BLDG 1: PROCESS VESSEL T-1134 (1,000 GAL.) | Manufacturing and Materials Handling Equipment | | 5/15/2015 | | | ES291000 ES292000 ES293000 |
| E291211 | T-1136 | BLDG 1: PROCESS VESSEL T-1136 (500 GAL.) | Manufacturing and Materials Handling Equipment | | 5/15/2015 | | | ES291000 ES292000 ES293000 |
| E291212 | T-1132 | BLDG 1: PROCESS VESSEL T-1132 (200 GAL.) | Manufacturing and Materials Handling Equipment | | 5/15/2015 | | | ES291000 ES292000 ES293000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|--|--|-----------------------|-----------------|--------------------|---------------------------|--|
| E291401 | PFD-975 | BLDG 1: PRESSURE FILTER DRYER PFD-975 (3 M^2) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES295000 |
| E291402 | PFD-1130 | BLDG 1: PRESSURE FILTER DRYER PFD-1130 (2 M^2) | Manufacturing and Materials Handling Equipment | | 5/15/2015 | | | ES291000 ES295000 |
| E291403 | PFD-001 | BLDG 1: PRESSURE FILTER DRYER PFD-001 (0.3 M^2) | Manufacturing and Materials Handling Equipment | | | | | ES291000 ES295000 |
| E292101 | R-2011 | BLDG 2: REACTOR R-2011 (2,000 GAL) | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/2015 | No | | ES291000 ES292000 ES293000 ES296000 ES297000 |
| E292102 | R-2012 | BLDG 2: REACTOR R-2012 (2,000 GAL) | Manufacturing and Materials Handling Equipment | BOP040003 | 9/1/2000 | No | | ES291000 ES293000 ES297000 |
| E292103 | R-2021 | BLDG 2: REACTOR R-2021 (2,000 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/2015 | No | | ES291000 ES292000 ES293000 ES296000 ES297000 |
| E292104 | R-2022 | BLDG 2: REACTOR R-2022 (2,000 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 9/1/2000 | No | | ES291000 ES293000 ES297000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|---|--|-----------------------|-----------------|--------------------|---------------------------|----------------------|
| E292201 | TJ-420 | BLDG 2: PROCESS VESSEL TJ-420 (20 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES293000 |
| E292202 | T-1301 | BLDG 2: PROCESS VESSEL T-1301 (30 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES293000 |
| E292203 | T-2011 | BLDG 2: PROCESS VESSEL T-2011 (2,000 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 9/1/2000 | No | | ES291000 ES293000 |
| E292204 | T-2021 | BLDG 2: PROCESS VESSEL T-2021 (2,000 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | 9/1/2000 | No | | ES291000 ES293000 |
| E292205 | T-2321 | BLDG 2: PROCESS VESSEL T-2321 (50 GAL.) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 |
| E292206 | T-2322 | BLDG 2: PROCESS VESSEL T-2322 (50 GAL.) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 |
| E292207 | T-2325 | BLDG 2: PROCESS VESSEL T-2325 (500 GAL.) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 |
| E292208 | T-2326 | BLDG 2: PROCESS VESSEL T-2326 (100 GAL.) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 |
| E292209 | T-2327 | BLDG 2: PROCESS VESSEL T-2327 (500 GAL.) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|---|--|-----------------------|-----------------|--------------------|---------------------------|----------------------------------|
| E292210 | T-2328 | BLDG 2: PROCESS VESSEL T-2328 (500 GAL.) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 |
| E292401 | CFG-2501 | BLDG 2: CENTRIFUGE CFG-2051 | Manufacturing and Materials Handling Equipment | BOP040003 | 9/1/2000 | No | | ES291000 ES295000 |
| E292402 | CFG-941 | BLDG 2: CENTRIGUGE CFG-941 - SPARE | Manufacturing and Materials Handling Equipment | BOP040003 | 9/1/2000 | No | | ES291000 ES295000 |
| E292403 | Thin Film Ev | BLDG 2: THIN FILM EVAPORATOR | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES295000 |
| E292404 | D-885 | BLDG 2: DRYER | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES295000 |
| E293201 | T-430 | BLDG 1 & 2: MOBILE PROCESS VESSEL T-430 (10 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 ES293000 |
| E293202 | T-440 | BLDG 1 & 2: MOBILE PROCESS VESSEL T-440 (10 GAL.) | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES292000 ES293000 |
| E293301 | FJ-142 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-142 | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES295000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|---|--|-----------------------|-----------------|--------------------|---------------------------|----------------------|
| E293302 | FJ-150 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-150 | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES295000 |
| E293303 | FJ-155 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-155 | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/1999 | No | | ES291000 ES295000 |
| E293304 | FJ-160 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-160 | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/1999 | No | | ES291000 ES295000 |
| E293305 | FJ-165 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-165 | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/1999 | No | | ES291000 ES295000 |
| E293306 | FJ-170 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-170 | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/1999 | No | | ES291000 ES295000 |
| E293307 | FJ-175 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-175 | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/1999 | No | | ES291000 ES295000 |
| E293308 | FJ-180 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-180 | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/1999 | No | | ES291000 ES295000 |
| E293309 | FJ-185 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-185 | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/1999 | No | | ES291000 ES295000 |
| E293310 | FJ-190 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-190 | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/1999 | No | | ES291000 ES295000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|---|--|-----------------------|-----------------|--------------------|---------------------------|----------------------|
| E293311 | FJ-239 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-239 | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES295000 |
| E293312 | FJ-241 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-241 | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES295000 |
| E293313 | FJ-250 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-250 | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES295000 |
| E293314 | FJ-341 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-341 | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES295000 |
| E293315 | FJ-350 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-350 | Manufacturing and Materials Handling Equipment | BOP040003 | | No | 4/8/1999 | ES291000 ES295000 |
| E293316 | FJ-710 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-710 | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/1999 | No | | ES291000 ES295000 |
| E293317 | FJ-715 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-715 | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/1999 | No | | ES291000 ES295000 |
| E293318 | FJ-720 | BLDG 1 & 2: MOBILE PROCESS FILTER FJ-720 | Manufacturing and Materials Handling Equipment | BOP040003 | 7/1/1999 | No | | ES291000 ES295000 |
| E293319 | FJ-132 | Process Filter FJ-132 (42 in. diameter) | Manufacturing and Materials Handling Equipment | | 8/1/2016 | | | ES291000 ES295000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|--|--|-----------------------|-----------------|--------------------|---------------------------|----------------------------------|
| E293320 | FJ-152 | Process Filter FJ-152 (42 in. diameter) | Manufacturing and Materials Handling Equipment | | 8/1/2016 | | | ES291000 ES295000 |
| E293321 | FJ-162 | Process Filter FJ-162 (42 in. diameter) | Manufacturing and Materials Handling Equipment | | 8/1/2016 | | | ES291000 ES295000 |
| E293322 | FJ-172 | Process Filter FJ-172 (42 in. diameter) | Manufacturing and Materials Handling Equipment | | 8/1/2016 | | | ES291000 ES295000 |
| E293323 | FJ-130 | BLD 1 & 2: Mobile Process Filter FJ-130 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |
| E293324 | FJ-135 | BLD 1 & 2: Mobile Process Filter FJ-135 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |
| E293325 | FJ-140 | BLD 1 & 2: Mobile Process Filter FJ-140 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |
| E293326 | FJ-200 | BLD 1 & 2: Mobile Process Filter FJ-200 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |
| E293327 | FJ-205 | BLD 1 & 2: Mobile Process Filter FJ-205 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|--|--|-----------------------|-----------------|--------------------|---------------------------|----------------------------------|
| E293328 | FJ-210 | BLD 1 & 2: Mobile Process Filter FJ-210 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |
| E293329 | FJ-215 | BLD 1 & 2: Mobile Process Filter FJ-215 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |
| E293330 | FJ-220 | BLD 1 & 2: Mobile Process Filter FJ-220 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |
| E293331 | FJ-225 | BLD 1 & 2: Mobile Process Filter FJ-225 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |
| E293332 | FJ-230 | BLD 1 & 2: Mobile Process Filter FJ-230 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |
| E293333 | FJ-725 | BLD 1 & 2: Mobile Process Filter FJ-725 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |
| E293334 | FJ-730 | BLD 1 & 2: Mobile Process Filter FJ-730 | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES293000 ES295000 |
| E294101 | R10901 | GMP LAB: PROCESS VESSEL R10901 (30 L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|--|--|-----------------------|-----------------|--------------------|---------------------------|----------------------------------|
| E294103 | R10933 | GMP LAB: PROCESS VESSEL R10933 (50 L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 |
| E294104 | R10941 | GMP LAB: PROCESS VESSEL R10941 (50 L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 |
| E294106 | R10967 | GMP LAB: REACTOR R10967 (50 L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |
| E294107 | R10968 | GMP LAB: REACTOR R10968 (50 L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |
| E294108 | R10969 | GMP LAB: REACTOR R10969 (50 L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |
| E294109 | R10972 | GMP LAB: REACTOR R10972 (50L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |
| E294110 | R10973 | GMP LAB: REACTOR R10973 (50L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |
| E294111 | R10903 | GMP LAB: REACTOR R10903 (20L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|---|--|-----------------------|-----------------|--------------------|---------------------------|----------------------------------|
| E294112 | R10904 | GMP LAB: REACTOR R10904 (20L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |
| E294113 | R10921 | GMP LAB: REACTOR R10921 (20L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |
| E294114 | R10930 | GMP LAB: REACTOR R10930 (20L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |
| E294115 | R10934 | GMP LAB: REACTOR R10934 (20L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |
| E294116 | R10976 | GMP LAB: REACTOR R10976 (30L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |
| E294117 | R10974 | GMP LAB: REACTOR R10974 (100L) | Manufacturing and Materials Handling Equipment | | | No | | ES291000 ES294000 ES298000 |
| E479001 | EmGen2 | Emergency Generator Pharmaceutical Plant | Emergency Generator | 120753 | 4/1/1995 | No | 4/1/1995 | |
| E509001 | EmGen3 | Emergency Generator Pharmaceutical Matl. | Emergency Generator | PCP010002 | 8/1/2001 | No | | |
| E510001 | Air Strip | Air Stripper | Air Stripper | PCP010004 | 1/1/2002 | No | | |
| E530001 | T-1115 | Waste Solvent Tank T-1115 15,000 gal. | Storage Vessel | | 8/1/2015 | No | | |

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand- Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|----------------|---------------------------|--|-----------------|-----------------------|-----------------|--------------------|---------------------------|------------------|
| E530002 | T-1110 | Raw Materials Solvent Tank T-1110 12,500 gal. | Storage Vessel | | 8/1/2015 | No | | |
| E530003 | T-1111 | Raw Materials Solvent Tank T-1111 12,500 gal. | Storage Vessel | | 8/1/2015 | No | | |
| E530004 | T-1112 | Raw Materials Solvent Tank T-1112 12,500 gal. | Storage Vessel | | 8/1/2015 | No | | |
| E530005 | T-1113 | Raw Materials Solvent Tank T-1113, 7,500 gal. | Storage Vessel | | | No | | |
| E530006 | T-1114 | Raw Materials Solvent Tank T-1114, 7,500 gal. | Storage Vessel | | | No | | |
| E530007 | T-1117 | Raw Materials Solvent Tank T-1117, 7,500 gal. | Storage Vessel | | | No | | |
| E530008 | T-1118 | Raw Materials Solvent Tank T-1118, 7,500 gal. | Storage Vessel | | | No | | |
| E530009 | Tote Fill | Tote Filling from Raw Material Solvent Tanks | Other Equipment | | | No | | |

| 56153 | VERANOVA, LP | BOP230002 E291101 (Manufacturing and Materials Handling Equipment) |
|-------|--------------|--|
| | | Print Date: 2/28/2024 |

| Make: | Pfaudler |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | Jacketed Reactor |
| Capacity: | 7.50E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | BLDG 1: REACTOR RJ-111 |

Ma

56153 VERANOVA, LP BOP230002 E291102 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-112 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | jacketed reactor |
| Capacity: | 7.50E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No 💌 |
| Comments: | |

Make

56153 VERANOVA, LP BOP230002 E291103 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-113 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | jacketed reactor |
| Capacity: | 7.50E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No 💌 |
| Comments: | |

Make

56153 VERANOVA, LP BOP230002 E291104 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-114 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | P |
| Handling Equipment: | jacketed reactor |
| Capacity: | 7.50E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

56153 VERANOVA, LP BOP230002 E291105 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-221 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | jacketed reactor |
| Capacity: | 1.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

56153 VERANOVA, LP BOP230002 E291106 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-222 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | 8 |
| Handling Equipment: | jacketed reactor |
| Capacity: | 1.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

56153 VERANOVA, LP BOP230002 E291107 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | |
|---------------|--|
| Manufacturer: | |

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| | BLDG 1: RJ-403 |
|-------|------------------|
| | |
| | |
| rials | |
| | jacketed reactor |
| | 2.00E+02 |
| | gallons |
| | |
| | |
| | No |
| | |
| | |

No

▼

56153 VERANOVA, LP BOP230002 E291108 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-404 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | jacketed reactor |
| Capacity: | 2.50E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes 💌 |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No 🗸 |
| Comments: | |

Make

56153 VERANOVA, LP BOP230002 E291109 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-405 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | |
| Handling Equipment: | jacketed reactor |
| Capacity: | 7.50E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes 💌 |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

56153 VERANOVA, LP BOP230002 E291110 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-406 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | iacketed reactor |
| | |
| Capacity: | 7.50E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

56153 VERANOVA, LP BOP230002 E291111 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-407 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | jacketed reactor |
| Capacity: | 1.50E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No 🗸 |
| Comments: | |

56153 VERANOVA, LP BOP230002 E291112 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024 -

| Make: | BLDG 1: REACTOR RJ-408 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | Jacketed Reactor |
| Capacity: | 1.50E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

| 56153 | VERANOVA, LP | BOP230002 E291113 (Manufacturing and Materials Handling Equipment) |
|-----------------------|--------------|--|
| Print Date: 2/28/2024 | | |

| Make: | Pfaudler |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | Jacketed Reactor |
| Capacity: | 5.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | |
| | No |
| Comments: | BLDG 1: REACTOR RJ-423 |

56153 VERANOVA, LP BOP230002 E291114 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-424 |
|--|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | jacketed reactor |
| Capacity: | 5.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No 🔻 |
| Comments: | |

Make

56153 VERANOVA, LP BOP230002 E291115 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-701 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | P |
| Handling Equipment: | jacketed reactor |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

56153 VERANOVA, LP BOP230002 E291116 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-702 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | * |
| Handling Equipment: | jacketed reactor |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

56153 VERANOVA, LP BOP230002 E291117 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-703 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | jacketed reactor |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes 🗸 |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No 🗸 |
| Comments: | |

Make

56153 VERANOVA, LP BOP230002 E291118 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-704 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | 8 |
| Handling Equipment: | jacketed reactor |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

56153 VERANOVA, LP BOP230002 E291119 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | Pfaudler |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | Jacketed Reactor |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | <u></u> |
| | No |
| Comments: | BLDG 1: REACTOR RJ-705 |

56153 VERANOVA, LP BOP230002 E291120 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: REACTOR RJ-706 |
|---|------------------------|
| Manufacturer: | |
| Model: Type of Manufacturing and Materials Handling Equipment: | jacketed reactor |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes 💌 |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make

56153 VERANOVA, LP BOP230002 E291201 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: PROCESS VESSEL T-103 |
|---|------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | jacketed tank |
| Capacity: | 1.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

56153 VERANOVA, LP BOP230002 E291202 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: PROCESS VESSEL T-104 |
|--|------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | |
| | tank |
| Capacity: | 6.00E+01 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Commonts: | |

Make:

Comments:

56153 VERANOVA, LP BOP230002 E291203 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: PROCESS VESSEL T-105 |
|--|------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | tank |
| Capacity: | 5.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No 💌 |
| Comments: | |

Make:

Comments:

56153 VERANOVA, LP BOP230002 E291204 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: PROCESS VESSEL T-125 |
|--|------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | tank |
| Capacity: | 1.25E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No 💌 |
| Comments: | |

Make:

Comments:

56153 VERANOVA, LP BOP230002 E291205 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: PROCESS VESSEL T-220 |
|---|------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | jacketed tank |
| Capacity: | 1.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

56153 VERANOVA, LP BOP230002 E291206 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: PROCESS VESSEL T-978 |
|---|------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | |
| Capacity: | 1.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

56153 VERANOVA, LP BOP230002 E291207 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: PROCESS VESSEL T-980 |
|---|------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | |
| Capacity: | 1.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

56153 VERANOVA, LP BOP230002 E291208 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: PROCESS VESSEL T-985 |
|---|------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | |
| Capacity: | 1.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

56153 VERANOVA, LP BOP230002 E291209 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make. | | |
|--|---------------|--|
| Manufacturer: | | |
| Model: | | |
| Type of Manufacturing and Materials Handling Equipment: | jacketed tank | |
| Capacity: | 1.00E+02 | |
| Units: | gallons | |
| Description (if other): | | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes | |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No | |
| Comments: | | |

Make:

56153 VERANOVA, LP BOP230002 E291210 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: PROCESS VESSEL T-1134 |
|---|-------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | 8 |
| Handling Equipment: | Tank |
| Capacity: | 1.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

Comments:

56153 VERANOVA, LP BOP230002 E291211 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: PROCESS VESSEL T-1136 |
|---|-------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | |
| Handling Equipment: | Tank |
| Capacity: | 5.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No 💌 |
| Comments: | |

Make:

Comments:

56153 VERANOVA, LP BOP230002 E291212 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1: PROCESS VESSEL T-1132 |
|---|-------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | P |
| Handling Equipment: | Tank |
| Capacity: | 2.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No 💌 |
| Comments: | |

Make:

Comments:

56153 VERANOVA, LP BOP230002 E291401 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make: Manufacturer: Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| PRESS | SURE FILTER DRYER PFD-975 | |
|---------|---------------------------|---|
| | | |
| | | |
| | | |
| | 3.00E+00 | |
| other u | inits | • |
| square | meters | |

| No | - |
|----|---|

56153 VERANOVA, LP BOP230002 E291402 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make: Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| | 2.00E+0 | 00 |
|--------------|---------|----|
| other units | | |
| square meter | s | |

No ▼

 \bullet

56153 VERANOVA, LP BOP230002 E291403 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| Pressure Filter | Dryer PFD-001 |
|-----------------|---------------|
| | |
| | |
| | |
| | |
| | 3.00E-01 |
| other units | |
| square meters | |

| - |
|---|
| |
| |
| |

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56153 VERANOVA, LP BOP230002 E292101 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 2: REACTOR R-2011 |
|---|--|
| Manufacturer: | Roben Manufacturing Co., Inc. |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | reactor with agitator |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | The reactor is made of Hastelloy C material. |

56153 VERANOVA, LP BOP230002 E292102 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024 ÷

| Make: | BLDG 2: REACTOR R-2012 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | reactor with agitator |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Mal

56153 VERANOVA, LP BOP230002 E292103 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024 E.

| Make: | BLDG 2: REACTOR R-2021 |
|---|---|
| Manufacturer: | Roben Manufacturing Co., Inc. |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | reactor with agitator |
| 0 1 1 | - |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | |
| | No |
| Comments: | This reactor is made of Hastelloy C material. |

M

56153 VERANOVA, LP BOP230002 E292104 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024 ÷

| Make: | BLDG 2: REACTOR R-2022 |
|---|------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | reactor with agitator |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Ма

| 56153 | VERANOVA, LP | BOP230002 E292201 (Manufacturing and Materials Handling Equipment) |
|-----------------------|--------------|--|
| Print Date: 2/28/2024 | | |

| Make: | BLDG 2: PROCESS VESSEL TJ-420 |
|---|-------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | Tank |
| Capacity: | 2.00E+01 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

56153 VERANOVA, LP BOP230002 E292202 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | |
|---|-----------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | Dean Stark Tank |
| Capacity: | 5.00E+01 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

56153 VERANOVA, LP BOP230002 E292203 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 2: PROCESS VESSEL RE-2011 |
|---|--------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | receiver with jacket |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

56153 VERANOVA, LP BOP230002 E292204 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 2: PROCESS VESSEL T-2021 |
|---|-------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | receiver with vacuum jacket |
| Capacity: | 2.00E+03 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

| 56153 | VERANOVA, LP | BOP230002 E292205 (Manufacturing and Materials Handling Equipment) |
|-------|--------------|--|
| | | Print Date: 2/28/2024 |

| Make: | BLDG 2: PROCESS VESSEL T-2321 |
|---|-------------------------------|
| Manufacturer: | |
| Model: Type of Manufacturing and Materials Handling Equipment: | T |
| Capacity: | Tank 5.00E+01 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

| 56153 | VERANOVA, LP | BOP230002 E292206 (Manufacturing and Materials Handling Equipment) |
|-------|--------------|--|
| | | Print Date: 2/28/2024 |

| Make: | BLDG 2: PROCESS VESSEL T-2322 |
|---|-------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | Tank |
| Capacity: | 5.00E+01 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

| 56153 | VERANOVA, LP | BOP230002 E292207 (Manufacturing and Materials Handling Equipment) | |
|-------|--------------|--|--|
| | | Print Date: 2/28/2024 | |

| Make: | BLDG 2: PROCESS VESSEL T-2325 |
|---|-------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | Tank |
| Capacity: | 5.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Comments:

56153 VERANOVA, LP BOP230002 E292208 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 2: PROCESS VESSEL T-2326 |
|---|-------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | |
| Capacity: | 1.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

56153 VERANOVA, LP BOP230002 E292209 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 2: PROCESS VESSEL T-2327 |
|---|-------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | 8 |
| Handling Equipment: | Tank |
| Capacity: | 5.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | v |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | • |
| Comments: | |

Make:

56153 VERANOVA, LP BOP230002 E292210 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 2: PROCESS VESSEL T-2328 |
|---|-------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | R |
| Handling Equipment: | Tank |
| Capacity: | 5.00E+02 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | v |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | • |
| Comments: | |

Make:

Comments

56153 VERANOVA, LP BOP230002 E292401 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 2: CENTRIFUGE CFG-2051 |
|---|-----------------------------|
| Manufacturer: | |
| Model: Type of Manufacturing and Materials Handling Equipment: | basket centrifuge |
| Capacity: | 4.80E+01 |
| Units: | other units |
| Description (if other): | inches |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| | |

Make:

Comments:

56153 VERANOVA, LP BOP230002 E292402 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| basket centrifuge | |
|-------------------|----------|
| | 4.80E+01 |
| other units | |
| inches | |

56153 VERANOVA, LP BOP230002 E292403 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| BLDG 2: THIN FILM EVA | PORATOR |
|----------------------------|---------|
| LCI Corp | |
| | |
| | |
| Thin Film Evaporator | |
| 1.40 | 0E+00 |
| other units | - |
| thermal surface area (ft^2 |) |

▼

56153 VERANOVA, LP BOP230002 E292404 (Manufacturing and Materials Handling Equipment)
Print Date: 2/28/2024

| | FIIII Dale: 2/20/2024 |
|---|-----------------------|
| Make: | BLDG 2: DRYER |
| Manufacturer: | Pinks |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | Tray Dryer |
| Capacity: | |
| Units: | |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

56153 VERANOVA, LP BOP230002 E293201 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1 & 2: MOBILE PROCESS VESSEL T-4 |
|---|---------------------------------------|
| Manufacturer: | |
| Model: Type of Manufacturing and Materials Handling Equipment: | Tank |
| Capacity: | 1.00E+01 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| 0 | |

Comments:

56153 VERANOVA, LP BOP230002 E293202 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | BLDG 1 & 2: MOBILE PROCESS VESSEL T-4 |
|---|---------------------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | Tank |
| Capacity: | 1.00E+01 |
| Units: | gallons |
| Description (if other): | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Yes |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| - | |

Comments:

56153 VERANOVA, LP BOP230002 E293301 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| | 10BILE PROCESS FILTER F |
|------------------|-------------------------|
| | |
| | |
| hastalloy filter | |
| | 4.00E+01 |
| other units | • |
| inch - diameter | r |

56153 VERANOVA, LP BOP230002 E293302 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastalloy filter 4.20E+0 | |
|-----------------------------|---|
| 4.20E+0 | |
| 4.20E+0 | |
| | _ |
| | 1 |
| other units | |
| inch - diameter | |

56153 VERANOVA, LP BOP230002 E293303 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastalloy filter 4.20E+0 | |
|-----------------------------|---|
| 4.20E+0 | |
| 4.20E+0 | |
| | _ |
| | 1 |
| other units | |
| inch - diameter | |

56153 VERANOVA, LP BOP230002 E293304 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| | | | CESS FILT | |
|------------|--------|--------|-----------|--|
| | | | | |
| hastalloy | filter | | | |
| | | 4.20E- | +01 | |
| other uni | ts | | l | |
| inch - dia | ameter | | | |

56153 VERANOVA, LP BOP230002 E293305 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastalloy | filter | | |
|-------------|--------|----------|--|
| | | 4.20E+01 | |
| other unit | S | | |
| inch - diai | neter | | |

56153 VERANOVA, LP BOP230002 E293306 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastallo | by filter | | | |
|----------|-----------|-------|-----|---|
| | | 4.20E | +01 | |
| other u | nits | | | • |
| inch - d | liameter | | | |

56153 VERANOVA, LP BOP230002 E293307 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastalloy filter 4.20E+0 | |
|-----------------------------|---|
| 4.20E+0 | |
| 4.20E+0 | |
| | _ |
| | 1 |
| other units | |
| inch - diameter | |

56153 VERANOVA, LP BOP230002 E293308 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastalloy filter 4.20E+0 | |
|-----------------------------|---|
| 4.20E+0 | |
| 4.20E+0 | |
| | _ |
| | 1 |
| other units | |
| inch - diameter | |

56153 VERANOVA, LP BOP230002 E293309 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastalloy | filter | | |
|-------------|--------|----------|--|
| | | 4.20E+01 | |
| other unit | S | | |
| inch - diai | neter | | |

56153 VERANOVA, LP BOP230002 E293310 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastallo | y filter | | | |
|-----------|----------|-------|-----|---|
| | | 4.20E | +01 | |
| other ur | nits | | | • |
| inch - di | ameter | | | |

56153 VERANOVA, LP BOP230002 E293311 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| polyethylene filter | |
|---------------------|----------|
| | 4.00E+01 |
| other units | |
| inch - diameter | |

56153 VERANOVA, LP BOP230002 E293312 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastallo | oy filter | | | |
|----------|-----------|------|------|--|
| | | 4.20 | E+01 | |
| other u | nits | | | |
| inch - d | iameter | | | |

56153 VERANOVA, LP BOP230002 E293313 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastallo | y filter | | | |
|-----------|----------|--------|----|--|
| | | 4.20E+ | 01 | |
| other un | its | | | |
| inch - di | ameter | | | |

56153 VERANOVA, LP BOP230002 E293314 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastalloy filter | | | |
|------------------|------|------|--|
| | 1.80 | E+01 | |
| other units | 1.00 | | |
| inch - diameter | | | |

56153 VERANOVA, LP BOP230002 E293315 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| | | | - |
|--------------|-------|----------|---|
| | | | _ |
| hastalloy fi | lter | | _ |
| | | 1.80E+01 | |
| other units | | | • |
| inch - diam | ieter | | |

56153 VERANOVA, LP BOP230002 E293316 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastallo | y filter | | | |
|----------|----------|-------|-----|---|
| | | 4.20E | +01 | |
| other ur | nits | | | • |
| inch - d | iameter | | | |

56153 VERANOVA, LP BOP230002 E293317 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastallo | y filter | | | |
|-----------|----------|-------|-----|---|
| | | 4.20E | +01 | |
| other ur | nits | | | • |
| inch - di | ameter | | | |

56153 VERANOVA, LP BOP230002 E293318 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| hastalloy filter | |
|------------------|----------|
| | 4.20E+01 |
| other units | |
| inch - diameter | |

56153 VERANOVA, LP BOP230002 E293319 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| | Process Filter FJ-132 |
|-------------------------------------|-----------------------|
| | |
| | |
| g and Materials | р |
| | Hastalloy Filter |
| | 4.20E+01 |
| | other units |
| | inch - diameter |
| diagram and/or the equipment? | No |
| ny manuf.'s to aid the this | |

▼

No

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

56153 VERANOVA, LP BOP230002 E293320 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| | Process Filter FJ-152 |
|------------------------------------|-----------------------|
| | FIDCESS FILLER FJ-152 |
| | |
| | |
| | |
| and Materials | |
| | Hastalloy Filter |
| | |
| | 4.20E+01 |
| | other units |
| | |
| | inch - diameter |
| liagram Ind/or the quipment? | No 🔽 |
| aupment. | |
| y manuf.'s to aid the his | |

▼

No

Type of Manufacturing Handling Equipment:

Manufacturer: Model:

Capacity:

Units:

Make:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

56153 VERANOVA, LP BOP230002 E293321 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| | Process Filter FJ-162 |
|------------------------------------|-----------------------|
| | |
| | |
| and Materials | |
| | Hastalloy Filter |
| | 4.20E+01 |
| | other units |
| | inch - diameter |
| diagram Ind/or the quipment? | No |
| y manuf.'s to aid the | |

▼

No

Model:

Manufacturer:

Make:

Type of Manufacturing Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a d showing the location an configuration of this eq

Have you attached any data or specifications to a Dept. in its review of this application?

56153 VERANOVA, LP BOP230002 E293322 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | Process Filter FJ-172 |
|--|-----------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials | 8 |
| Handling Equipment: | Hastalloy Filter |
| Capacity: | 4.20E+01 |
| Units: | other units |
| Description (if other): | inch - diameter |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dent in its review of this | |

▼

Units:

Have you attached any data or specifications to Dept. in its review of thi application?

Comments:

No

56153 VERANOVA, LP BOP230002 E293323 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| Hastalloy Filte | r | |
|-----------------|----------|--|
| | 4.20E+01 | |
| other units | | |
| inches - diame | eter | |

56153 VERANOVA, LP BOP230002 E293324 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| | Process Fi | iller FJ-1 | 30 | |
|----------|------------|------------|------|--|
| | | | | |
| | | | | |
| | | | | |
| Hastallo | y Filter | | | |
| | | 4.20 | E+01 | |
| other un | its | | | |
| inches - | diameter | | | |
| inches - | diameter | | | |

56153 VERANOVA, LP BOP230002 E293325 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| Hastalloy Filter | | |
|------------------|----------|--|
| | 4.20E+01 | |
| other units | | |
| inches - diamte | er | |

56153 VERANOVA, LP BOP230002 E293326 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| Hastalloy Filte | r | |
|-----------------|----------|--|
| | 4.20E+01 | |
| other units | | |
| inches - diame | eter | |

56153 VERANOVA, LP BOP230002 E293327 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| Hastalloy Filter | | |
|-------------------|----------|--|
| | 4.20E+01 | |
| other units | | |
| inches - diameter | | |

56153 VERANOVA, LP BOP230002 E293328 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

56153 VERANOVA, LP BOP230002 E293329 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| Hastalloy Filter | | |
|------------------|----------|--|
| | | |
| | 4.20E+01 | |
| other units | | |
| inches - diame | ter | |

56153 VERANOVA, LP BOP230002 E293330 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make: Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| Stainless Steel | Fllter | |
|-----------------|----------|--|
| | 4.20E+01 | |
| other units | | |
| nches - diamete | er | |

56153 VERANOVA, LP BOP230002 E293331 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| Mobile Process F | -liter FJ-225 | |
|-------------------|---------------|--|
| | | |
| | | |
| Hastalloy Filter | | |
| | 4.20E+01 | |
| other units | | |
| inches - diameter | r | |

56153 VERANOVA, LP BOP230002 E293332 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| Mobile Process Filt | ər FJ-230 | |
|---------------------|-----------|--|
| | | |
| | | |
| | | |
| | | |
| Hastalloy Filter | | |
| | 4.005.01 | |
| | 4.20E+01 | |
| other units | | |
| inches - diameter | | |
| inches - diameter | | |

56153 VERANOVA, LP BOP230002 E293333 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make: Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| Stainless Ste | el Filter | |
|---------------|-----------|--|
| | 4.20E+01 | |
| other units | | |
| inches - diam | neter | |

56153 VERANOVA, LP BOP230002 E293334 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make: Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| Mobile Process F | Filter FJ-730 |
|-------------------|---------------|
| | |
| | |
| | |
| Stainless Steel F | ilter |
| | 4.20E+01 |
| other units | |
| nches - diameter | r |

56153 VERANOVA, LP BOP230002 E294101 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| | GMP LAB: PROCESS VESSEL R10901 |
|---|--------------------------------|
| iring and Materials | |
| ent: | Glass vessel |
| | 3.00E+01 |
| | other units |
| er): | liters |
| d a diagram on and/or the is equipment? | No |
| d any manuf.'s ons to aid the of this | No |
| | |

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

56153 VERANOVA, LP BOP230002 E294103 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| MP LAB: PROCESS VESSEL | R10933 |
|------------------------|--------|
| | |
| | |
| | |
| | |
| Vessel | |
| 5.00E+01 | |
| other units | |
| iters | |

▼

56153 VERANOVA, LP BOP230002 E294104 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Type of Manufacturing and Materials Handling Equipment:

Capacity:

Units:

Description (if other):

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| GMP LAB: PROCI | ESS VESSEL R10941 |
|----------------|-------------------|
| | |
| | |
| | |
| | |
| Vessel | |
| | 5.00E+01 |
| | 5.00E+01 |
| other units | |
| liters | |
| ileis | |

▼

56153 VERANOVA, LP BOP230002 E294106 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP LAB: REACTOR R10967 |
|---|-------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | |
| Capacity: | 5.00E+01 |
| Units: | other units |
| Description (if other): | LITERS |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

56153 VERANOVA, LP BOP230002 E294107 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP LAB: REACTOR R10968 |
|---|-------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | |
| Capacity: | 5.00E+01 |
| Units: | other units |
| Description (if other): | LITERS |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make: Manufacture

56153 VERANOVA, LP BOP230002 E294108 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP LAB: REACTOR R10969 |
|---|-------------------------|
| Manufacturer: | |
| Model: | |
| Type of Manufacturing and Materials Handling Equipment: | |
| Capacity: | 5.00E+01 |
| Units: | other units |
| Description (if other): | LITERS |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No |
| Comments: | |

Make:

56153 VERANOVA, LP BOP230002 E294109 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP Lab: Reactor R10972 | |
|---|-------------------------|--|
| Manufacturer: | | |
| Model: | | |
| Type of Manufacturing and Materials Handling Equipment: | | |
| Capacity: | 5.00E+01 | |
| Units: | other units | |
| Description (if other): | Liters | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No | |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No | |
| Comments: | | |

Make:

56153 VERANOVA, LP BOP230002 E294110 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP Lab: Reactor R10973 | |
|---|-------------------------|--|
| Manufacturer: | | |
| Model: | | |
| Type of Manufacturing and Materials Handling Equipment: | | |
| Capacity: | 5.00E+01 | |
| Units: | other units | |
| Description (if other): | Liters | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No | |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No | |
| Comments: | | |

Make:

56153 VERANOVA, LP BOP230002 E294111 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP Lab: Reactor R10903 | |
|---|-------------------------|--|
| Manufacturer: | | |
| Model: | | |
| Type of Manufacturing and Materials Handling Equipment: | | |
| Capacity: | 2.00E+01 | |
| Units: | other units | |
| Description (if other): | Liters | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No | |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No | |
| Comments: | | |

Make:

56153 VERANOVA, LP BOP230002 E294112 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP Lab: Reactors R10904 | |
|---|--------------------------|--|
| Manufacturer: | | |
| Model: | | |
| Type of Manufacturing and Materials Handling Equipment: | | |
| Capacity: | 2.00E+01 | |
| Units: | other units | |
| Description (if other): | Liters | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No | |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No | |
| Comments: | | |

Make:

56153 VERANOVA, LP BOP230002 E294113 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP Lab: Reactor R10921 | |
|---|-------------------------|--|
| Manufacturer: | | |
| Model: | | |
| Type of Manufacturing and Materials Handling Equipment: | | |
| Capacity: | 2.00E+01 | |
| Units: | other units | |
| Description (if other): | Liters | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No | |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No | |
| Comments: | | |

Make:

56153 VERANOVA, LP BOP230002 E294114 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP Lab: Reactor R10930 | |
|---|-------------------------|--|
| Manufacturer: | | |
| Model: | | |
| Type of Manufacturing and Materials Handling Equipment: | | |
| Capacity: | 2.00E+01 | |
| Units: | other units | |
| Description (if other): | Liters | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No | |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No | |
| Comments: | | |

Make:

56153 VERANOVA, LP BOP230002 E294115 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP Lab: Reactor R10934 | |
|---|-------------------------|--|
| Manufacturer: | | |
| Model: | | |
| Type of Manufacturing and Materials Handling Equipment: | | |
| Capacity: | 2.00E+01 | |
| Units: | other units | |
| Description (if other): | Liters | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No | |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No | |
| Comments: | | |

Make:

56153 VERANOVA, LP BOP230002 E294116 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP Lab Reactor R10976 | |
|---|------------------------|--|
| Manufacturer: | | |
| Model: | | |
| Type of Manufacturing and Materials Handling Equipment: | | |
| Capacity: | 3.00E+01 | |
| Units: | other units | |
| Description (if other): | Liters | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No | |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No | |
| Comments: | | |

Make:

56153 VERANOVA, LP BOP230002 E294117 (Manufacturing and Materials Handling Equipment) Print Date: 2/28/2024

| Make: | GMP Lab: Reactor R10974 | |
|---|-------------------------|--|
| Manufacturer: | | |
| Model: | | |
| Type of Manufacturing and Materials Handling Equipment: | | |
| Capacity: | 1.00E+02 | |
| Units: | other units | |
| Description (if other): | Liters | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | No | |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | No | |
| Comments: | | |

Make:

| | Filli Dale: 2/20/2024 | | |
|--|----------------------------------|---|----------------------------------|
| Make: | | | |
| Manufacturer: | Generac Corp. | | |
| Model: | 95A00532-S | | |
| Maximum rated Gross Heat Input (MMBtu/hr-HHV): | | 2.34 | |
| Will the equipment be used in excess of 500 hours per year? | YesNo | | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | YesNo | Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | YesNo |
| Comments: | | | |

56153 VERANOVA, LP BOP230002 E479001 (Emergency Generator) Print Date: 2/28/2024

56153 VERANOVA, LP BOP230002 E509001 (Emergency Generator) Print Date: 2/28/2024

| Make: | | | |
|--|------------------------------------|---|----------------------------------|
| Manufacturer: | Kohler | | |
| Model: | 750ROZD4 | | |
| Maximum rated Gross Heat Input (MMBtu/hr-HHV): | | 4.54 | |
| Will the equipment be used in excess of 500 hours per year? | Yes● No | | |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | Ves | Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | YesNo |

Comments:

56153 VERANOVA, LP BOP230002 E510001 (Air Stripper) Print Date: 2/28/2024

Make:

Manufacturer:

Model:

Have you attached a diagram showing the location and/or the configuration of this equipment?

Comments:

| Carbonair | | |
|----------------------------------|---|----------------------------------|
| OS 2-20 | | |
| YesNo | Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | YesNo |

56153 VERANOVA, LP BOP230002 E530001 (Storage Vessel) Print Date: 2/28/2024

What type of contents is this storage vessel equipped to contain by design?

| contain by design? | Liquids Only | |
|--|--------------------------|---|
| Storage Vessel Type: | Tank | |
| Design Capacity: | 15,000 | |
| Units: | gallons | |
| Ground Location: | Above Ground | |
| Is the Shell of the Equipment | Vec | |
| Exposed to Sunlight? Shell Color: | Yes Diffuse Aluminum | |
| Description (if other): | | |
| Shell Condition: | _ | |
| Paint Condition: | Good | |
| Shell Construction: | _ | |
| Is the Shell Insulated? | No | |
| Type of Insulation: | | |
| Insulation Thickess (in): | | |
| Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]: | | |
| Shape of Storage Vessel: | Cylindrical | |
| Shell Height (From Ground to Roof Bottom) (ft): | 32.00 | |
| Length (ft): | | |
| Width (ft): | | |
| Diameter (ft): | 10.00 | |
| Other Dimension | , | |
| Description: | | |
| Value: | | |
| Units: | | |
| Fill Method: | Submerged | |
| Description (if other): | | |
| Maximum Design Fill Rate: | | |
| Units: | gal/min | • |
| Does the storage vessel have | · | |
| a roof or an open top? | Roof | |
| Roof Type: | Vertical fixed roof tank | |
| Roof Height (From Roof Bottom to Roof Top) (ft): | 32.00 | |
| Roof Construction: | | |
| Primary Seal Type: | | |
| Secondary Seal Type: | | |
| Total Number of Seals: | | |
| Roof Support: | • | |
| Does the storage vessel have a Vapor Return Loop? | | |
| Deep the staroad viscal | | |

56153 VERANOVA, LP BOP230002 E530001 (Storage Vessel) Print Date: 2/28/2024

Does the storage vessel have a Conservation Vent?

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| No | - |
|----|---|
| | |
| | |

Yes



56153 VERANOVA, LP BOP230002 E530002 (Storage Vessel) Print Date: 2/28/2024

What type of contents is this storage vessel equipped to contain by design?

| contain by design? | Liquids Only | |
|--|--------------------------|---|
| Storage Vessel Type: | Tank | |
| Design Capacity: | 12,500 | |
| Units: | gallons | |
| Ground Location: | Above Ground | |
| Is the Shell of the Equipment | Vee | |
| Exposed to Sunlight? Shell Color: | Yes Diffuse Aluminum | |
| Description (if other): | | |
| Shell Condition: | • | |
| Paint Condition: | Good | |
| Shell Construction: | • | |
| Is the Shell Insulated? | No | |
| Type of Insulation: | | |
| Insulation Thickess (in): | | |
| Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]: | | |
| Shape of Storage Vessel: | Cylindrical | |
| Shell Height (From Ground to Roof Bottom) (ft): | 32.00 | |
| Length (ft): | | |
| Width (ft): | | |
| Diameter (ft): | 8.00 | |
| Other Dimension | J | |
| Description: | | |
| Value: | | |
| Units: | | |
| Fill Method: | Submerged | |
| Description (if other): | , | |
| Maximum Design Fill Rate: | | |
| Units: | gal/min | • |
| Does the storage vessel have a roof or an open top? | Roof | |
| Roof Type: | Vertical fixed roof tank | |
| Roof Height (From Roof Bottom | 32.00 | |
| to Roof Top) (ft): Roof Construction: | | |
| Primary Seal Type: | • | |
| Secondary Seal Type: | | |
| Total Number of Seals: | | |
| Roof Support: | | |
| Does the storage vessel have a Vapor Return Loop? | | |
| Dece the statement vessel | | |

56153 VERANOVA, LP BOP230002 E530002 (Storage Vessel) Print Date: 2/28/2024

Does the storage vessel have a Conservation Vent?

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| No | • |
|----|---|
| , | |
| | |

Yes



56153 VERANOVA, LP BOP230002 E530003 (Storage Vessel) Print Date: 2/28/2024

What type of contents is this storage vessel equipped to contain by design?

| contain by design? | Liquids Only | |
|--|--------------------------|---|
| Storage Vessel Type: | Tank | |
| Design Capacity: | 12,500 | |
| Units: | gallons | |
| Ground Location: | Above Ground | |
| Is the Shell of the Equipment | Vee | |
| Exposed to Sunlight? Shell Color: | Yes Diffuse Aluminum | |
| Description (if other): | | |
| Shell Condition: | • | |
| Paint Condition: | Good | |
| Shell Construction: | • | |
| Is the Shell Insulated? | No | |
| Type of Insulation: | | |
| Insulation Thickess (in): | | |
| Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]: | | |
| Shape of Storage Vessel: | Cylindrical | |
| Shell Height (From Ground to Roof Bottom) (ft): | 32.00 | |
| Length (ft): | | |
| Width (ft): | | |
| Diameter (ft): | 8.00 | |
| Other Dimension | J | |
| Description: | | |
| Value: | | |
| Units: | | |
| Fill Method: | Submerged | |
| Description (if other): | , | |
| Maximum Design Fill Rate: | | |
| Units: | gal/min | • |
| Does the storage vessel have a roof or an open top? | Roof | |
| Roof Type: | Vertical fixed roof tank | |
| Roof Height (From Roof Bottom | 32.00 | |
| to Roof Top) (ft): Roof Construction: | | |
| Primary Seal Type: | • | |
| Secondary Seal Type: | | |
| Total Number of Seals: | | |
| Roof Support: | | |
| Does the storage vessel have a Vapor Return Loop? | | |
| Dece the statement vessel | | |

56153 VERANOVA, LP BOP230002 E530003 (Storage Vessel) Print Date: 2/28/2024

Does the storage vessel have a Conservation Vent?

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| No | • |
|----|---|
| , | |
| | |

Yes



56153 VERANOVA, LP BOP230002 E530004 (Storage Vessel) Print Date: 2/28/2024

What type of contents is this storage vessel equipped to contain by design?

| contain by design? | Liquids Only | |
|--|--------------------------|---|
| Storage Vessel Type: | Tank | |
| Design Capacity: | 12,500 | |
| Units: | gallons | |
| Ground Location: | Above Ground | |
| Is the Shell of the Equipment | Vee | |
| Exposed to Sunlight? Shell Color: | Yes Diffuse Aluminum | |
| Description (if other): | | |
| Shell Condition: | • | |
| Paint Condition: | Good | |
| Shell Construction: | • | |
| Is the Shell Insulated? | No | |
| Type of Insulation: | | |
| Insulation Thickess (in): | | |
| Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]: | | |
| Shape of Storage Vessel: | Cylindrical | |
| Shell Height (From Ground to Roof Bottom) (ft): | 32.00 | |
| Length (ft): | | |
| Width (ft): | | |
| Diameter (ft): | 8.00 | |
| Other Dimension | J | |
| Description: | | |
| Value: | | |
| Units: | | |
| Fill Method: | Submerged | |
| Description (if other): | , | |
| Maximum Design Fill Rate: | | |
| Units: | gal/min | • |
| Does the storage vessel have a roof or an open top? | Roof | |
| Roof Type: | Vertical fixed roof tank | |
| Roof Height (From Roof Bottom | 32.00 | |
| to Roof Top) (ft): Roof Construction: | | |
| Primary Seal Type: | • | |
| Secondary Seal Type: | | |
| Total Number of Seals: | | |
| Roof Support: | | |
| Does the storage vessel have a Vapor Return Loop? | | |
| Dece the statement vessel | | |

56153 VERANOVA, LP BOP230002 E530004 (Storage Vessel) Print Date: 2/28/2024

Does the storage vessel have a Conservation Vent?

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| No | • |
|----|---|
| , | |
| | |

Yes



56153 VERANOVA, LP BOP230002 E530005 (Storage Vessel) Print Date: 2/28/2024

What type of contents is this storage vessel equipped to contain by design?

| contain by design? | Liquids Only | |
|--|--------------------------------|---|
| Storage Vessel Type: | Tank | |
| Design Capacity: | 7,500 | |
| Units: | gallons | |
| Ground Location: | Above Ground | |
| Is the Shell of the Equipment | Mar | |
| Exposed to Sunlight? Shell Color: | Yes Diffuse Aluminum | |
| Description (if other): | | Ĭ |
| Shell Condition: | ~ | |
| Paint Condition: | Good | |
| Shell Construction: | Welded | |
| Is the Shell Insulated? | No | |
| Type of Insulation: | | |
| Insulation Thickess (in): | | |
| Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]: | | |
| Shape of Storage Vessel: | Cylindrical | |
| Shell Height (From Ground to Roof Bottom) (ft): | 51.10 | |
| Length (ft): | | |
| Width (ft): | | |
| Diameter (ft): | 5.00 | |
| Other Dimension | 2 | |
| Description: | | |
| Value: | | |
| Units: | | |
| Fill Method: | Submerged | |
| Description (if other): | | |
| Maximum Design Fill Rate: | | |
| Units: | gal/min | • |
| Does the storage vessel have a roof or an open top? | Roof | |
| Roof Type: | Domed vertical fixed roof tank | |
| Roof Height (From Roof Bottom | 0.67 | |
| to Roof Top) (ft): Roof Construction: | | |
| Primary Seal Type: | • | |
| Secondary Seal Type: | | |
| Total Number of Seals: | | |
| Roof Support: | | |
| Does the storage vessel have a Vapor Return Loop? | No | |
| Deep the starses used | | |

56153 VERANOVA, LP BOP230002 E530005 (Storage Vessel) Print Date: 2/28/2024

Yes

Does the storage vessel have a Conservation Vent?

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| No | |
|-----------------|--|
| Yes | |
| Shell is RTO | s in good condition. Emissions routed to |

56153 VERANOVA, LP BOP230002 E530006 (Storage Vessel) Print Date: 2/28/2024

What type of contents is this storage vessel equipped to contain by design?

| contain by design? | Liquids Only | |
|--|--------------------------------|---|
| Storage Vessel Type: | Tank | |
| Design Capacity: | 7,500 | |
| Units: | gallons | |
| Ground Location: | Above Ground | |
| Is the Shell of the Equipment | Vee | |
| Exposed to Sunlight? Shell Color: | Yes Diffuse Aluminum | |
| Description (if other): | | Ĩ |
| Shell Condition: | | |
| Paint Condition: | Good | |
| Shell Construction: | _ | |
| Is the Shell Insulated? | No | |
| Type of Insulation: | | |
| Insulation Thickess (in): | | |
| Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]: | | |
| Shape of Storage Vessel: | Cylindrical 👻 | |
| Shell Height (From Ground to Roof Bottom) (ft): | 51.10 | |
| Length (ft): | | |
| Width (ft): | | |
| Diameter (ft): | 5.00 | |
| Other Dimension | | |
| Description: | | |
| Value: | | |
| Units: | | |
| Fill Method: | Submerged | |
| Description (if other): | | |
| Maximum Design Fill Rate: | | |
| Units: | gal/min | - |
| Does the storage vessel have a roof or an open top? | Roof | |
| Roof Type: | Domed vertical fixed roof tank | |
| Roof Height (From Roof Bottom to Roof Top) (ft): Roof Construction: | 0.67 | |
| Primary Seal Type: | | |
| Secondary Seal Type: | | |
| Total Number of Seals: | | |
| Roof Support: | | |
| Does the storage vessel have a Vapor Return Loop? | No | |
| Dead the starses wassel | | |

56153 VERANOVA, LP BOP230002 E530006 (Storage Vessel) Print Date: 2/28/2024

Yes

Does the storage vessel have a Conservation Vent?

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| No | |
|--|-------------|
| Yes | |
| Shell is in good condition. Emission RTO | s routed to |

56153 VERANOVA, LP BOP230002 E530007 (Storage Vessel) Print Date: 2/28/2024

What type of contents is this storage vessel equipped to contain by design?

| contain by design? | Liquids Only |
|--|--------------------------------|
| Storage Vessel Type: | Tank |
| Design Capacity: | 7,500 |
| Units: | gallons |
| Ground Location: | Above Ground |
| Is the Shell of the Equipment | Vaa |
| Exposed to Sunlight? Shell Color: | Yes Diffuse Aluminum |
| Description (if other): | |
| Shell Condition: | |
| Paint Condition: | Good |
| Shell Construction: | |
| Is the Shell Insulated? | No |
| Type of Insulation: | |
| Insulation Thickess (in): | |
| Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]: | |
| Shape of Storage Vessel: | Cylindrical 🗸 |
| Shell Height (From Ground to Roof Bottom) (ft): | 51.10 |
| Length (ft): | |
| Width (ft): | |
| Diameter (ft): | 5.00 |
| Other Dimension | , |
| Description: | |
| Value: | |
| Units: | |
| Fill Method: | Submerged |
| Description (if other): | |
| Maximum Design Fill Rate: | |
| Units: | gal/min |
| Does the storage vessel have a roof or an open top? | Roof |
| Roof Type: | Domed vertical fixed roof tank |
| Roof Height (From Roof Bottom to Roof Top) (ft): Roof Construction: | 0.67 |
| Primary Seal Type: | |
| Secondary Seal Type: | |
| Total Number of Seals: | |
| Roof Support: | |
| Does the storage vessel have a Vapor Return Loop? | No 💌 |
| Dear the starses wassel | p |

56153 VERANOVA, LP BOP230002 E530007 (Storage Vessel) Print Date: 2/28/2024

Yes

Does the storage vessel have a Conservation Vent?

Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| No | |
|---|--|
| Yes | |
| Shell is in good condition. Emissions routed to RTO | |

56153 VERANOVA, LP BOP230002 E530008 (Storage Vessel) Print Date: 2/28/2024

What type of contents is this storage vessel equipped to contain by design?

| contain by design? | Liquids Only | |
|--|--------------------------------|---|
| Storage Vessel Type: | Tank | |
| Design Capacity: | 7,500 | |
| Units: | gallons | |
| Ground Location: | Above Ground | |
| Is the Shell of the Equipment | Vee | |
| Exposed to Sunlight? Shell Color: | Yes Diffuse Aluminum | |
| Description (if other): | | Ĩ |
| Shell Condition: | | |
| Paint Condition: | Good | |
| Shell Construction: | _ | |
| Is the Shell Insulated? | No | |
| Type of Insulation: | | |
| Insulation Thickess (in): | | |
| Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]: | | |
| Shape of Storage Vessel: | Cylindrical 👻 | |
| Shell Height (From Ground to Roof Bottom) (ft): | 51.10 | |
| Length (ft): | | |
| Width (ft): | | |
| Diameter (ft): | 5.00 | |
| Other Dimension | | |
| Description: | | |
| Value: | | |
| Units: | | |
| Fill Method: | Submerged | |
| Description (if other): | | |
| Maximum Design Fill Rate: | | |
| Units: | gal/min | - |
| Does the storage vessel have a roof or an open top? | Roof | |
| Roof Type: | Domed vertical fixed roof tank | |
| Roof Height (From Roof Bottom to Roof Top) (ft): Roof Construction: | 0.67 | |
| Primary Seal Type: | | |
| Secondary Seal Type: | | |
| Total Number of Seals: | | |
| Roof Support: | | |
| Does the storage vessel have a Vapor Return Loop? | No | |
| Dead the starses wassel | | |

56153 VERANOVA, LP BOP230002 E530008 (Storage Vessel) Print Date: 2/28/2024

Yes

Does the storage vessel have a Conservation Vent?

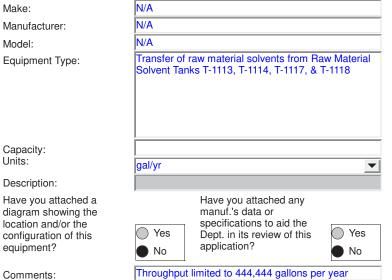
Have you attached a diagram showing the location and/or the configuration of this equipment?

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Comments:

| No | |
|---|--|
| Yes | |
| Shell is in good condition. Emissions routed to RTO | |

56153 VERANOVA, LP BOP230002 E530009 (Other Equipment) Print Date: 2/28/2024



VERANOVA, LP (56153) BOP230002

New Jersey Department of Environmental Protection Control Device Inventory

| CD NJID | Facility's Designation | Description | СD Туре | Install Date | Grand- Fathered | Last Mod. (Since 1968) | CD Set ID |
|------------|---------------------------|------------------|-------------------------|-----------------|--------------------|---------------------------|--------------|
| CD290102 | SCR-2143 | Scrubber | Scrubber (Packed Tower) | 9/1/2000 | No | | CS29 |
| CD290601 | T0-2143 | Thermal Oxidizer | Oxidizer (Thermal) | 9/1/2000 | No | | CS29 |

| 56153 VERANOVA, LP | BOP230002 CD290102 (Scrubber (Packed Tower)) |
|--------------------|--|
| | Print Date: 2/28/2024 |

| Make: | | |
|--|-----------------------------------|-----|
| Manufacturer: | AirPol | |
| Model: | | |
| Is the Scrubber Used for Particulate Control? | Ves No | |
| Is the Scrubber Used for Gas Control? | Ves No | |
| Is the Scrubber Equipped with a Mist Eliminator? | Ves No | |
| Minimum Pump Discharge Pressure (in. H20): | | |
| Maximum Pump Discharge Pressure (in. H20): | | |
| Method of Monitoring Pump Discharge Pressure: | DCS/PLC | |
| Minimum Pump Current (amps): | | |
| Maximum Pump Current (amps): | | |
| Method of Monitoring Pump Current: Minimum Scrubber Medium Inlet Pressure (in. H20): | | |
| Minimum Operating Liquid Flow Rate (gpm): | 800.00 | |
| Maximum Operating Liquid Flow Rate (gpm): | 1,840.00 | |
| Method of Monitoring Liquid Flow Rate: | DCS/PLC | |
| Minimum Operating Gas Flow Rate (acfm): | | |
| Maximum Operating Gas Flow Rate (acfm): | 99,999.00 | |
| Method of Monitoring Gas Flow Rate: | None | |
| Minimum Operating Pressure Drop (in. H20): | | |
| Maximum Operating Pressure Drop (in. H20): | 7.50 | |
| Method of Monitoring Pressure Drop: | DCS/PLC | |
| Relative Direction of the Gas-Liquid Flow: | Counter-Current | |
| Description: | | |
| Height of Packed Section (ft): | 6 | |
| Type of Packing Material: | LanPac glass-filled polypropylene | |
| Size of Packing Material (in): | | 3.5 |
| Tower Diameter (ft): | 12.50 | |
| Total Tower Height (ft): | 38.00 | |
| Maximum Operating Temperature of the Inlet Gas (°F): | 185.0 | |
| Maximum Operating Temperature of the Exhuast Gas(°F): | 185.0 | |
| Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources): | | |
| | | |

🔵 Yes 🌘 No

🔵 Yes 🌘 No

Alternative Method to Demonstrate Control Apparatus is Operating Properly:

Have you attached data from recent performance testing?

Have you attached a diagram showing the location and/or configuration of this control apparatus?

56153 VERANOVA, LP BOP230002 CD290102 (Scrubber (Packed Tower)) Print Date: 2/28/2024

Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?

Comments:

| \bigcirc | Yes | • | No |
|------------|-----|---|----|

For Informational Purposes Only.

| 56153 | VERANOVA, LP BOP230002 CD290601 (Oxidizer (Thermal) Print Date: 2/28/2024 |
|---|--|
| Make: | |
| Manufacturer: | Smith Engineering Company |
| Model: | |
| Minimum Chamber Temperature (°F | 1500 |
| Minimum Residence Time (sec): | 0.5 |
| Fuel Type: | Natural gas |
| Description: | |
| Maximum Rated Gross Heat Input (MMBtu/hr): | 31.8 |
| Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources): | |
| Alternative Method to Demonstrate Control Apparatus is Operating Properly: | |
| Have you attached data from recent performance testing? | Ves No |
| Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus? | Ves No |
| Have you attached a diagram showing the location and/or configuration of this control apparatus? | Ves No |
| Comments: | For Informational Purposes Only. |

VERANOVA, LP (56153) BOP230002

New Jersey Department of Environmental Protection Emission Points Inventory

| PT NJID | Facility's Designation | - | Config. | Equiv. Diam. | Height (ft.) | Dist. to Prop. | Exhaust Temp. (deg. F) | | | Exh | aust Vol. (a | Discharge Direction | | |
|------------|---------------------------|---|---------|-----------------|--------------|-------------------|------------------------|-------|---------|---------|--------------|------------------------|-----------|---------|
| NJID | Designation | | | (in.) | (11.) | Line (ft) | Avg. | Min. | Max. | Avg. | Min. | Max. | Direction | Set ID |
| PT290002 | Pharm TO/Scf | Thermal Oxidizer/Scrubber | Round | 18 | 105 | 475 | 80.0 | 75.0 | 110.0 | 5,000.0 | 3,000.0 | 70,000.0 | Up | PS 2900 |
| PT290003 | T-112 | H2 Vent Tank | Round | 2 | 30 | 285 | 80.0 | 75.0 | 110.0 | 20.0 | 10.0 | 50.0 | Up | PS 2901 |
| PT290004 | T-406 | H2 Vent Tank | Round | 2 | 30 | 285 | 80.0 | 75.0 | 110.0 | 20.0 | 10.0 | 50.0 | Up | PS 2901 |
| PT290005 | T-702 | H2 Vent Tank | Round | 2 | 30 | 345 | 80.0 | 75.0 | 110.0 | 20.0 | 10.0 | 50.0 | Up | PS 2901 |
| PT290006 | EF-1 | Roof Fan | Round | 48 | 30 | 295 | 80.0 | 75.0 | 110.0 | 3,000.0 | 1,000.0 | 5,000.0 | Up | PS 2900 |
| PT290008 | EF-3 | Roof Fan | Round | 48 | 30 | 295 | 80.0 | 75.0 | 110.0 | 3,000.0 | 1,000.0 | 5,000.0 | Up | PS 2900 |
| PT290009 | EF-4 | Roof Fan | Round | 48 | 30 | 295 | 80.0 | 75.0 | 110.0 | 3,000.0 | 1,000.0 | 5,000.0 | Up | PS 2900 |
| PT290010 | EF-5 | Roof Fan | Round | 48 | 30 | 295 | 80.0 | 75.0 | 110.0 | 3,000.0 | 1,000.0 | 5,000.0 | Up | PS 2900 |
| PT290011 | EF-6 | Roof Fan | Round | 48 | 30 | 295 | 80.0 | 75.0 | 110.0 | 3,000.0 | 1,000.0 | 5,000.0 | Up | PS 2900 |
| PT290012 | HEF5 | HEF5 | Round | 15 | 40 | 345 | 70.0 | 50.0 | 90.0 | 4,000.0 | 3,000.0 | 6,000.0 | Up | PS 2900 |
| PT470001 | EmGen2 | Emergency Generator Pharmaceutical Plant Stack | Round | 5 | 8 | 310 | 1,000.0 | 800.0 | 1,200.0 | 1,500.0 | 1,000.0 | 1,700.0 | Up | |
| PT500001 | EmGen3 | Emergency Generator Pharmaceutical Matl. | Round | 10 | 6 | 540 | 900.0 | 750.0 | 1,000.0 | 6,300.0 | 5,000.0 | 7,500.0 | Up | |
| PT510001 | Air Strip | Air Stripper | Round | 8 | 30 | 350 | 120.0 | 110.0 | 130.0 | 700.0 | 600.0 | 800.0 | Up | |

VERANOVA, LP (56153) BOP230002

New Jersey Department of Environmental Protection Emission Unit/Batch Process Inventory

BP29 Batch Manu. Batch Manufacturing of Pharmaceutical Products

OS1 TOX/Scrub Pharmaceutical Production vented to the Thermal Oxidizer/Scrubber BPOS Type: Normal - Steady State

| Batch Process Operating Scenario Run Time (hours) | | ng Scenario Run Time (hours) Min. Calc. Time: 2.0 Max. Calc. Time: 26.0 | | | | Min. User Tin | | Max. | | | | | | |
|---|---------------------------|---|--------------------------|------------------|------------------------------|----------------------|-------------|-------------------------------|------|--------------|----------|-----------------------|------|---------------------|
| Step NJID | Facility's Designation | Step Description | Operation Type | Signif. Fauin | Control Device(s) | Emission Point(s) | SCC(s) | Step R Time Ho Mire - N | ours | VOC Banga | (| Flow acfm) Marr | (de | mp. eg F) Moy |
| | Designation | - | | Equip. | Device(s) | 1 0111(8) | | | | Range | | Max. | Min. | Max. |
| ST1 | Charge | Charging of material(s) | Normal - Steady State | | CD290102 (S) CD290601 (P) | PT290002 | 3-01-060-99 | 1.0 | 6.0 | А | 12,000.0 | 45,000.0 | 75.0 | 110.0 |
| ST2 | Depress | Depressurization of vessel(s) | Normal - Steady State | ES293000 | CD290102 (S) CD290601 (P) | PT290002 | 3-01-060-99 | 1.0 | 2.0 | А | 12,000.0 | 45,000.0 | 75.0 | 110.0 |
| ST3 | Dry | Drying of product(s) | Normal - Steady State | | CD290102 (P) CD290601 (P) | PT290002 | 3-01-060-99 | 1.0 | 20.0 | А | 12,000.0 | 45,000.0 | 75.0 | 110.0 |
| ST4 | Heat | Heating of material in vessel(s) | Normal - Steady State | | CD290102 (S) CD290601 (P) | PT290002 | 3-01-060-99 | 1.0 | 6.0 | А | 12,000.0 | 45,000.0 | 75.0 | 110.0 |
| ST5 | Hydrogen | Hydrogenation of material in vessel(s) | Normal - Steady State | ES297000 | | PS2901 | 3-01-060-99 | 1.0 | 10.0 | А | 10.0 | 50.0 | 75.0 | 110.0 |
| ST6 | Purge | Purging vessels | Normal - Steady State | | CD290102 (S) CD290601 (P) | PT290002 | 3-01-060-99 | 1.0 | 2.0 | А | 12,000.0 | 45,000.0 | 75.0 | 110.0 |
| ST7 | Transfer | Transfer of material between vessels | Normal - Steady State | | CD290102 (S) CD290601 (P) | PT290002 | 3-01-060-99 | 1.0 | 12.0 | А | 12,000.0 | 45,000.0 | 75.0 | 110.0 |
| ST8 | Transfer | Transfer of material through a filter | Normal - Steady State | ES295000 | CD290102 (P) CD290601 (P) | PT290002 | 3-01-060-99 | 1.0 | 6.0 | А | 12,000.0 | 45,000.0 | 75.0 | 110.0 |

New Jersey Department of Environmental Protection Emission Unit/Batch Process Inventory

BP29 Batch Manu. Batch Manufacturing of Pharmaceutical Products

OS3 GMP Pharmaceutical Production in the GMP Building BPOS Type: Normal - Steady State

| Batch Proce | ss Operating Scen | ario Run Time (hours) | Min. Ca | ılc. Time: 8.0 | Max | . Calc. Time: 6 | 4.0 | Min. User T | me: | | Max. Us | ser Time: | | |
|--------------|---------------------------|--|--------------------------|-------------------|----------------------|--|-------------|--------------------------|-------|--------------|---------|--------------------|------|---------------------|
| Step NJID | Facility's Designation | Step Description | Operation Type | Signif. Equip. | Control Device(s) | Emission Point(s) | SCC(s) | Step] Time H Min. | lours | VOC Range | (ac | ow cfm) Max. | (de | mp. g F) Max. |
| ST1 | Charge | Charging of material(s) | Normal - Steady State | | | PT290006 PT290008 PT290009 PT290010 PT290011 PT290012 | 3-01-060-99 | | | A | 3,000.0 | 6,000.0 | 75.0 | 110.0 |
| ST2 | Depress | Depressurization of vessel(s) | Normal - Steady State | ES294000 | | | 3-01-060-99 | 1.0 | 2.0 | Α | 3,000.0 | 6,000.0 | 75.0 | 110.0 |
| ST3 | Dry | Drying of product(s) | Normal - Steady State | ES294000 | | | 3-01-060-99 | 1.0 | 20.0 | А | 3,000.0 | 6,000.0 | 75.0 | 110.0 |
| ST4 | Heat | Heating of material in vessel(s) | Normal - Steady State | ES298000 | | | 3-01-060-99 | 1.0 | 6.0 | A | 3,000.0 | 6,000.0 | 75.0 | 110.0 |
| ST5 | Hydrogen | Hydrogenation of material in vessel(s) | Normal - Steady State | ES298000 | | PS2901 | 3-01-060-99 | 1.0 | 10.0 | А | 10.0 | 50.0 | 75.0 | 110.0 |

New Jersey Department of Environmental Protection Emission Unit/Batch Process Inventory

BP29 Batch Manu. Batch Manufacturing of Pharmaceutical Products

OS3 GMP Pharmaceutical Production in the GMP Building BPOS Type: Normal - Steady State

| Batch Proces | s Operating Scen | ario Run Time (hours) | Min. Ca | lc. Time: 8.0 | Max. | Calc. Time: 6 | 4.0 | Min. User T | ïme: | | Max. User | Time: | | |
|--------------|------------------|---|--------------------------|---------------|-----------|--|-------------|----------------|------|-------|---------------|---------|------|-------------|
| Step | Facility's | Step | Operation | Signif. | Control | Emission | SCC(s) | Step Time I | | VOC | Flov (acfn | | | mp. g F) |
| NJID | Designation | Description | Туре | Equip. | Device(s) | Point(s) | SCC(S) | Min. | Max. | Range | Min. | Max. | Min. | Max. |
| ST6 | Purge | Purging vessels | Normal - Steady State | ES294000 | | PT290008 PT290009 PT290010 PT290011 | 3-01-060-99 | 1.0 | 2.0 | A | 3,000.0 | 6,000.0 | 75.0 | 110.0 |
| ST7 | Transfer | Transfer of material between vessels | Normal - Steady State | ES294000 | | PT290008 PT290009 PT290010 PT290011 | 3-01-060-99 | 1.0 | 12.0 | A | 3,000.0 | 6,000.0 | 75.0 | 110.0 |
| ST8 | Transfer | Transfer of materials through a filter | Normal - Steady State | ES294000 | | PT290012 PT290006 PT290008 PT290009 | 3-01-060-99 | 1.0 | 6.0 | A | 3,000.0 | 6,000.0 | 75.0 | 110.0 |

OS4 Cleaning Cleaning of Pharmaceutical Production Equipment BPOS Type: Normal - Steady State

| Batch Proces | s Operating Scen | ario Run Time (hours) | Min. Co | alc. Time: 1.0 | Max. | Calc. Time: 1 | 0.0 | Min. User T | Time: | | Max. User | r Time: | | |
|--------------|------------------|---|--------------------------|----------------|------------------------------|---------------|-------------|----------------|--------------|-------|---------------|---------|------|--------------|
| Step | Facility's | Step | Operation | Signif. | Control | Emission | SCC(s) | Step Time] | Run Hours | VOC | Flov (acfi | | | mp. eg F) |
| NJID | Designation | Description | Туре | Equip. | Device(s) | Point(s) | SCC(S) | Min. | Max. | Range | Min. | Max. | Min. | Max. |
| ST1 | Cleaning | Cleaning of pharmaceutical production equipment | Normal - Steady State | ES291000 | CD290102 (P) CD290601 (P) | PS2900 | 3-01-060-99 | 1.0 | 0 10.0 | А | 0.1 | 10.6 | 30.0 | 105.0 |

New Jersey Department of Environmental Protection Emission Unit/Batch Process Inventory

BP29 Batch Manu. Batch Manufacturing of Pharmaceutical Products

OS5 Pilot Plant Pilot Plant Operations BPOS Type: Normal - Steady State

| Batch Proces | ss Operating Scen | ario Run Time (hours) | Min. Ca | ılc. Time: 0.0 | Max. | Calc. Time: 0. | 0 | Min. User 1 | Time: | | Max. Us | ser Time: | |
|--------------|---------------------------|------------------------|--------------------------|-------------------|------------------------------|----------------------|--------|------------------------|-------|--------------|---------|---------------------|---------------------|
| Step NJID | Facility's Designation | Step Description | Operation Type | Signif. Equip. | Control Device(s) | Emission Point(s) | SCC(s) | Step Time I Min. | | VOC Range | (ac | low cfm) Max. | mp. g F) Max. |
| ST1 | Pilot Ops | Pilot Plant Operations | Normal - Steady State | ES291000 | CD290102 (P) CD290601 (P) | PS2900 | | | | | | | |

U 47 EmGen2 Emergency Generator Pharmaceutical Plant

| UOS NJID | Facility's Designation | UOS Description | Operation Type | Signif. Equip. | Control Device(s) | Emission Point(s) | SCC(s) | Ann Oper. I Min. | | VOC Range | Flov (acfi Min | | mp. eg F) Max. |
|-------------|---------------------------|--|--------------------------|-------------------|----------------------|----------------------|--------|------------------------|-------|--------------|----------------------|---------|----------------------|
| OS1 | EmGen2 | Diesel Fired Emergency Generator - Pharmaceutical Materials Plant | Normal - Steady State | | | PT470001 | | 0.0 | 500.0 | 0 | 1,000.0 | 1,700.0 | 1,000.0 |

New Jersey Department of Environmental Protection Emission Unit/Batch Process Inventory

U 50 EmGen3 Emergency Generator Pharmaceutical Matl.

| UOS | Facility's | UOS | Operation | Signif. | Control | Emission | SCC(s) | Ann Oper. I | | VOC | Flov (acfi | | Teı (de | np. g F) |
|------|-------------|---|--------------------------|---------|-------------------|----------|--------|----------------|-------|-------|---------------|---------|------------|-------------|
| NJID | Designation | Description | Туре | Equip. | Device (s) | Point(s) | SCC(8) | Min. | Max. | Range | Min. | Max. | Min. | Max. |
| OS1 | EmGen3 | Emergency Generator 3 - Pharmaceutical Matl. | Normal - Steady State | E509001 | | PT500001 | | 0.0 | 200.0 | | 5,000.0 | 6,500.0 | 750.0 | 900.0 |

U 51 AirStrip Air Stripper for Waste Water

| UOS | Facility's | UOS | Operation | Signif. | Control | Emission | SCC(s) | Ann Oper. I | | VOC | Flo (act | | | mp. g F) |
|------|-------------|--|--------------------------|---------|------------------------------|----------|--------|----------------|---------|-------|-------------|-------|-------|-------------|
| NJID | Designation | Description | Туре | Equip. | Device(s) | Point(s) | SCC(S) | Min. | Max. | Range | Min. | Max. | Min. | Max. |
| OS1 | Strip w/TO | Air Stripper for Waste Water with Thermal Oxidizer | Normal - Steady State | E510001 | CD290102 (S) CD290601 (P) | PT510001 | | 0.0 | 8,760.0 | С | 600.0 | 800.0 | 110.0 | 130.0 |

U 53 Tank Farm Storage Tanks

| UOS NJID | Facility's Designation | UOS Description | Operation Type | Signif. Equip. | Control Device(s) | Emission Point(s) | SCC(s) | Annua Oper. Ho Min. M | ours v | VOC Range | Flov (acfn Min. | | | mp. 2g F) Max. |
|-------------|---------------------------|--|--------------------------|-------------------|------------------------------|----------------------|-------------|-----------------------------|---------------|--------------|-----------------------|------|------|----------------------|
| OS1 | T-1115 | Operation of Waste Solvent Tank, T-1115 | Normal - Steady State | E530001 | CD290102 (S) CD290601 (P) | PT290002 | 4-07-060-20 | 0.0 8 | 3,760.0 | | 0.0 | 50.0 | 70.0 | 110.0 |

New Jersey Department of Environmental Protection Emission Unit/Batch Process Inventory

U 53 Tank Farm Storage Tanks

| UOS | Facility's | UOS | Operation | Signif. | Control | Emission | | Annu Oper. He | | VOC | Flo (acf | | | mp. eg F) |
|------|-------------|--|--------------------------|---------|------------------------------|----------|----------------------------|------------------|---------|-------|-------------|------|------|--------------|
| NJID | Designation | Description | Туре | Equip. | Device(s) | Point(s) | SCC(s) | Min. I | Max. | Range | Min. | Max. | Min. | Max |
| OS2 | T-1110 | Operation of Raw Materials Solvent Tank, T-1110 | Normal - Steady State | E530002 | CD290102 (S) CD290601 (P) | PT290002 | 4-07-060-20 | 0.0 | 8,760.0 | | 0.0 | 50.0 | 70.0 | 110. |
| OS3 | T-1111 | Operation of Raw Materials Solvent Tank, T-1111 | Normal - Steady State | E530003 | CD290102 (S) CD290601 (P) | PT290002 | 4-07-060-20 | 0.0 | 8,760.0 | | 0.0 | 50.0 | 70.0 | 110.0 |
| OS4 | T-1112 | Operation of Raw Materials Solvent Tank, T-1112 | Normal - Steady State | E530004 | CD290102 (S) CD290601 (P) | PT290002 | 4-07-060-20 | 0.0 | 8,760.0 | | 0.0 | 50.0 | 70.0 | 110.0 |
| OS5 | T-1113 | Operation of Raw Materials Solvent Tank T-1113 | Normal - Steady State | E530005 | CD290102 (S) CD290601 (P) | PT290002 | 4-07-146-98 4-07-146-97 | 0.0 | 8,760.0 | | 0.0 | 50.0 | 50.0 | 70.0 |
| DS6 | T-1114 | Operation of Raw Materials Solvent Tank T-1114 | Normal - Steady State | E530006 | CD290102 (S) CD290601 (P) | PT290002 | 4-07-146-98 4-07-146-97 | 0.0 | 8,760.0 | | 0.0 | 50.0 | 50.0 | 70.0 |
| OS7 | T-1117 | Operation of Raw Materials Solvent Tank T-1117 | Normal - Steady State | E530007 | CD290102 (S) CD290601 (P) | PT290002 | 4-07-146-98 4-07-146-97 | 0.0 | 8,760.0 | | 0.0 | 50.0 | 50.0 | 70.0 |
| OS8 | T-1118 | Operation of Raw Materials Solvent Tank T-1118 | Normal - Steady State | E530008 | CD290102 (S) CD290601 (P) | PT290002 | 4-07-146-98 4-07-146-97 | 0.0 | 8,760.0 | | 0.0 | 50.0 | 50.0 | 70.0 |
| OS9 | Tote Fill | Operaation of Tote Filling from Raw Material Solvent Tanks | Normal - Steady State | E530009 | CD290102 (S) CD290601 (P) | PT290002 | 3-01-060-18 | 0.0 | 8,760.0 | | 0.0 | 0.3 | 50.0 | 70.0 |

Date: 3/10/2024

New Jersey Department of Environmental Protection Emission Unit/Batch Process Inventory

U 54 INTENSE FOOT Intensification Footing System

| UOS | Facility's | UOS | Operation | Signif. | Control | Emission | | Annual Oper. Hours VOC | Flow (acfm) | Temp. (deg F) |
|------|-------------|-------------|-----------|---------|-----------|----------|--------|---------------------------|----------------|------------------|
| NJID | Designation | Description | Туре | Equip. | Device(s) | Point(s) | SCC(s) | Min. Max. Range | Min. Max. | Min. Max. |

New Jersey Department of Environmental Protection Subject Item Group Inventory

Group NJID: GR29 Batch&pilot

Members:

| Туре | ID | OS | Step |
|------|------|-----------------|-------------|
| BP | BP29 | OS1 TOX/Scrub | ST0 Summary |
| BP | BP29 | OS4 Cleaning | ST0 Summary |
| BP | BP29 | OS5 Pilot Plant | ST0 Summary |

Formal Reason(s) for Group/Cap: ✓ Other

Other (explain): MACT Subpart GGG requirements

Condition/Requirements that will be complied with or are no longer applicable as a result of this Group:

Operating Circumstances:

New Jersey Department of Environmental Protection Subject Item Group Inventory

Group NJID: GR30 Tanks & Batc

Members:

| Туре | ID | OS | Step |
|------|------|-----------------|-------------|
| BP | BP29 | OS1 TOX/Scrub | ST0 Summary |
| BP | BP29 | OS4 Cleaning | ST0 Summary |
| BP | BP29 | OS5 Pilot Plant | ST0 Summary |
| U | U 53 | OS1 T-1115 | |
| U | U 53 | OS2 T-1110 | |
| U | U 53 | OS3 T-1111 | |
| U | U 53 | OS4 T-1112 | |
| U | U 53 | OS5 T-1113 | |
| U | U 53 | OS6 T-1114 | |
| U | U 53 | OS7 T-1117 | |
| U | U 53 | OS8 T-1118 | |

Formal Reason(s) for Group/Cap:

✓ Other

Other (explain): Group common MACT Subpart GGG requirements in one section of C.P.

Condition/Requirements that will be complied with or are no longer

applicable as a result of this Group:

Operating Circumstances:

MACT Subpart GGG

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

Operating Scenario: OS0 Summary

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|--|-------------------|
| Acetonitrile | | | 8.00000000 | 8.00000000 | tons/yr | No |
| СО | | | 50.00000000 | 50.00000000 | ppmvd uncorrected for O2 concentrations in the flue gas | |
| СО | | | 43.00000000 | 43.00000000 | tons/yr | No |
| Chlorine | | | 0.03000000 | 0.03000000 | tons/yr | No |
| Dimethyl formamide (N, N-) | | | 8.00000000 | 8.00000000 | tons/yr | No |
| Formaldehyde | | | 0.02500000 | 0.02500000 | tons/yr | No |
| Glycol ethers | | | 8.00000000 | 8.00000000 | tons/yr | No |
| HAPs (Total) | | | 11.50000000 | 11.50000000 | tons/yr | No |
| Hexane (n-) | | | 8.00000000 | 8.00000000 | tons/yr | No |
| Hydrogen chloride | | | 0.75000000 | 0.75000000 | tons/yr | No |
| Methyl alcohol (Methanol) | | | 8.00000000 | 8.00000000 | tons/yr | No |
| Methyl ethyl ketone (MEK) | | | 8.00000000 | 8.0000000 | tons/yr | No |
| Methyl isobutyl ketone (MIBK) | | | 8.00000000 | 8.00000000 | tons/yr | No |
| Methyl tert-butyl ether | | | 8.00000000 | 8.0000000 | tons/yr | No |
| Methylene chloride (Dichloromethane) | | | 3.48000000 | 3.48000000 | tons/yr | No |
| NOx (Total) | | | 8.50000000 | 8.50000000 | tons/yr | No |
| PM-10 (Total) | | | 1.65000000 | 1.65000000 | tons/yr | No |
| PM-2.5 (Total) | | | 1.65000000 | 1.65000000 | tons/yr | |
| SO2 | | | D | 0.00000000 | tons/yr | No |
| TSP | | | 2.66000000 | 2.66000000 | tons/yr | No |
| Toluene | | | 8.00000000 | 8.00000000 | tons/yr | No |
| Triethylamine | | | 8.00000000 | 8.00000000 | tons/yr | No |
| VOC (Total) | | | 23.40000000 | 23.40000000 | tons/yr | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

Operating Scenario: OS1 TOX/Scrub

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|----------|-------------------|
| Acetonitrile | | | 3.83000000 | 3.83000000 | lb/batch | No |
| СО | | | | | lb/batch | No |
| Chlorine | | | 2.84000000 | 2.84000000 | lb/batch | No |
| Formaldehyde | | | 0.62000000 | 0.62000000 | lb/batch | No |
| HAPs (Total) | | | 95.41000000 | 95.41000000 | lb/batch | No |
| Hydrogen chloride | | | 76.60000000 | 76.60000000 | lb/batch | No |
| Methyl alcohol (Methanol) | | | 9.53000000 | 9.53000000 | lb/batch | No |
| Methyl ethyl ketone (MEK) | | | 3.21000000 | 3.21000000 | lb/batch | No |
| Methyl tert-butyl ether | | | 7.33000000 | 7.33000000 | lb/batch | No |
| Methylene chloride (Dichloromethane) | | | 56.60000000 | 56.60000000 | lb/batch | No |
| NOx (Total) | | | | | lb/batch | No |
| PM-10 (Total) | | | | | lb/batch | No |
| Pb | | | | | lb/batch | No |
| SO2 | | | | | lb/batch | No |
| TSP | | | D | D | lb/batch | No |
| TSP | | | 0.05000000 | 0.05000000 | lb/hr | |
| Toluene | | | 3.11000000 | 3.11000000 | lb/batch | No |
| Triethylamine | | | 3.19000000 | 3.19000000 | lb/batch | No |
| VOC (Total) | | | 120.00000000 | 120.00000000 | lb/batch | No |
| Xylene | | | 3.09000000 | 3.09000000 | lb/batch | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: **BP29 Batch Manu.**

Operating Scenario: OS1 TOX/Scrub ST1 Charge

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | D | D | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| CO | | | | | lb/step | No |
| Formaldehyde | | | D | D | lb/step | No |
| HAPs (Total) | | | D | D | lb/step | No |
| Hydrogen chloride | | | D | D | lb/step | No |
| Methyl alcohol (Methanol) | | | D | D | lb/step | No |
| Methyl ethyl ketone (MEK) | | | D | D | lb/step | No |
| Methyl tert-butyl ether | | | D | D | lb/step | No |
| Methylene chloride (Dichloromethane) | | | D | D | lb/step | No |
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |
| TSP | | | | | lb/step | No |
| Toluene | | | D | D | lb/step | No |
| Triethylamine | | | D | D | lb/step | No |
| VOC (Total) | | | D | D | lb/step | No |
| Xylene | | | D | D | lb/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

ST2 Depress

Operating Scenario: OS1 TOX/Scrub

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | 0.87000000 | 0.87000000 | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| СО | | | | | lb/step | No |
| Formaldehyde | | | 0.23000000 | 0.23000000 | lb/step | No |
| HAPs (Total) | | | 1.51000000 | 1.51000000 | lb/step | No |
| Hydrogen chloride | | | 0.23000000 | 0.23000000 | lb/step | No |
| Methyl alcohol (Methanol) | | | 0.07000000 | 0.07000000 | lb/step | No |
| Methyl ethyl ketone (MEK) | | | 0.09000000 | 0.09000000 | lb/step | No |
| Methyl tert-butyl ether | | | D | D | lb/step | No |
| Methylene chloride (Dichloromethane) | | | 0.30000000 | 0.30000000 | lb/step | No |
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |
| TSP | | | | | lb/step | No |
| Toluene | | | D | D | lb/step | No |
| Triethylamine | | | 0.14000000 | 0.14000000 | lb/step | No |
| VOC (Total) | | | 1.62000000 | 1.62000000 | lb/step | No |
| Xylene | | | D | D | lb/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

ST3 Dry

Operating Scenario: OS1 TOX/Scrub

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | 2.19910000 | 2.19910000 | lb/step | No |
| Aniline | | | 2.19910000 | 2.19910000 | lb/step | No |
| СО | | | | | lb/step | No |
| Formaldehyde | | | 2.19910000 | 2.19910000 | lb/step | No |
| HAPs (Total) | | | 26.39000000 | 26.39000000 | lb/step | No |
| Hydrogen chloride | | | 2.19910000 | 2.19910000 | lb/step | No |
| Methyl alcohol (Methanol) | | | 2.19910000 | 2.19910000 | lb/step | No |
| Methyl ethyl ketone (MEK) | | | 2.19910000 | 2.19910000 | lb/step | No |
| Methyl tert-butyl ether | | | 2.19910000 | 2.19910000 | lb/step | No |
| Methylene chloride (Dichloromethane) | | | 2.19910000 | 2.19910000 | lb/step | No |
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |
| TSP | | | | | lb/step | No |
| Toluene | | | 2.19910000 | 2.19910000 | lb/step | No |
| Triethylamine | | | 2.19910000 | 2.19910000 | lb/step | No |
| VOC (Total) | | | 24.19000000 | 24.19000000 | lb/step | No |
| Xylene | | | 2.19910000 | 2.19910000 | 1b/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

ST4 Heat

Operating Scenario: OS1 TOX/Scrub

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | 0.68000000 | 0.68000000 | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| СО | | | | | lb/step | No |
| Formaldehyde | | | 0.14000000 | 0.14000000 | lb/step | No |
| HAPs (Total) | | | 1.44000000 | 1.44000000 | lb/step | No |
| Hydrogen chloride | | | 0.16000000 | 0.16000000 | lb/step | No |
| Methyl alcohol (Methanol) | | | D | D | lb/step | No |
| Methyl ethyl ketone (MEK) | | | D | D | lb/step | No |
| Methyl tert-butyl ether | | | D | D | lb/step | No |
| Methylene chloride (Dichloromethane) | | | 0.29000000 | 0.29000000 | lb/step | No |
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |
| TSP | | | | | lb/step | No |
| Toluene | | | D | D | lb/step | No |
| Triethylamine | | | 0.05000000 | 0.05000000 | lb/step | No |
| VOC (Total) | | | 1.01000000 | 1.01000000 | lb/step | No |
| Xylene | | | D | D | lb/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

ST5 Hydrogen

Operating Scenario: OS1 TOX/Scrub

Step:

Triethylamine VOC (Total)

Xylene

Air Contaminant Category Fugitive Emissions Emissions Total Units (HAPS) Emissions **Before Controls** After Controls Emissions D D lb/step Acetonitrile No D D lb/step No Aniline CO lb/step No D lb/step Formaldehyde D No D D lb/step HAPs (Total) No D D lb/step Hydrogen chloride No D D lb/step Methyl alcohol (Methanol) No Methyl ethyl ketone (MEK) D D lb/step No D D lb/step Methyl tert-butyl ether No D D lb/step No Methylene chloride (Dichloromethane) lb/step No NOx (Total) PM-10 (Total) lb/step No Pb lb/step No SO2 lb/step No TSP lb/step No D lb/step D Toluene No

Alt. Em.

Limit

No

No

No

D

D

D

D lb/step

D lb/step

D lb/step

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

ST6 Purge

Operating Scenario: OS1 TOX/Scrub

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | D | D | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| СО | | | | | lb/step | No |
| Formaldehyde | | | D | D | lb/step | No |
| HAPs (Total) | | | D | D | lb/step | No |
| Hydrogen chloride | | | D | D | lb/step | No |
| Methyl alcohol (Methanol) | | | D | D | lb/step | No |
| Methyl ethyl ketone (MEK) | | | D | D | lb/step | No |
| Methyl tert-butyl ether | | | D | D | lb/step | No |
| Methylene chloride (Dichloromethane) | | | D | D | lb/step | No |
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |
| TSP | | | | | lb/step | No |
| Toluene | | | D | D | lb/step | No |
| Triethylamine | | | D | D | lb/step | No |
| VOC (Total) | | | 0.09000000 | 0.09000000 | lb/step | No |
| Xylene | | | D | D | lb/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

Operating Scenario: OS1 TOX/Scrub

Step:

: ST7 Transfer

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | 0.06000000 | 0.06000000 | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| СО | | | | | lb/step | No |
| Formaldehyde | | | D | D | lb/step | No |
| HAPs (Total) | | | | | lb/step | No |
| Hydrogen chloride | | | D | D | lb/step | No |
| Methyl alcohol (Methanol) | | | D | D | lb/step | No |
| Methyl ethyl ketone (MEK) | | | D | D | lb/step | No |
| Methyl tert-butyl ether | | | D | D | lb/step | No |
| Methylene chloride (Dichloromethane) | | | 0.07000000 | 0.07000000 | lb/step | No |
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |
| TSP | | | | | lb/step | No |
| Toluene | | | D | D | lb/step | No |
| Triethylamine | | | D | D | lb/step | No |
| VOC (Total) | | | | | lb/step | No |
| Xylene | | | D | D | lb/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

ST8 Transfer

Operating Scenario: OS1 TOX/Scrub

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | D | D | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| Formaldehyde | | | D | D | lb/step | No |
| Hydrogen chloride | | | D | D | lb/step | No |
| Methyl alcohol (Methanol) | | | D | D | lb/step | No |
| Methyl ethyl ketone (MEK) | | | D | D | lb/step | No |
| Methyl tert-butyl ether | | | D | D | lb/step | No |
| Methylene chloride (Dichloromethane) | | | 0.07000000 | 0.07000000 | lb/step | No |
| Toluene | | | D | D | lb/step | No |
| Trimethylamine | | | D | D | lb/step | No |
| Xylene | | | D | D | lb/step | No |

Subject Item: BP29 Batch Manu.

Operating Scenario: OS3 GMP

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|----------|-------------------|
| СО | | | | | lb/batch | No |
| HAPs (Total) | | | 0.51000000 | 0.51000000 | lb/batch | No |
| Methylene chloride (Dichloromethane) | | | 0.51000000 | 0.51000000 | lb/batch | No |
| NOx (Total) | | | | | lb/batch | No |
| PM-10 (Total) | | | | | lb/batch | No |
| Pb | | | | | lb/batch | No |
| SO2 | | | | | lb/batch | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

Operating Scenario: OS3 GMP

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|----------|-------------------|
| TSP | | | D | D | lb/batch | No |
| TSP | | | 0.05000000 | 0.05000000 | lb/hr | |
| VOC (Total) | | | 743.00000000 | 743.00000000 | lb/batch | No |

Subject Item: BP29 Batch Manu.

Operating Scenario: OS3 GMP

Step:

ST1 Charge

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| (2) | | | | | | |
| Acetonitrile | | | D | D | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| СО | | | | | lb/step | No |
| Formaldehyde | | | D | D | lb/step | No |
| HAPs (Total) | | | 0.15000000 | 0.15000000 | lb/step | No |
| Hydrogen chloride | | | D | D | lb/step | No |
| Methyl alcohol (Methanol) | | | D | D | lb/step | No |
| Methyl ethyl ketone (MEK) | | | D | D | lb/step | No |
| Methyl tert-butyl ether | | | D | D | lb/step | No |
| Methylene chloride (Dichloromethane) | | | D | D | lb/step | No |
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |
| TSP | | | | | lb/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: **BP29 Batch Manu.**

Operating Scenario: OS3 GMP ST1 Charge

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Toluene | | | D | D | lb/step | No |
| Triethylamine | | | D | D | lb/step | No |
| VOC (Total) | | | 0.16000000 | 0.16000000 | lb/step | No |
| Xylene | | | D | D | lb/step | No |

Subject Item: BP29 Batch Manu.

Operating Scenario: OS3 GMP

Step:

ST2 Depress

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | 0.59000000 | 0.59000000 | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| СО | | | | | lb/step | No |
| Formaldehyde | | | 0.99000000 | 0.99000000 | lb/step | No |
| HAPs (Total) | | | 11.92000000 | 11.92000000 | lb/step | No |
| Hydrogen chloride | | | 1.45000000 | 1.45000000 | lb/step | No |
| Methyl alcohol (Methanol) | | | 0.46000000 | 0.46000000 | lb/step | No |
| Methyl ethyl ketone (MEK) | | | 1.11000000 | 1.11000000 | lb/step | No |
| Methyl tert-butyl ether | | | 2.41000000 | 2.41000000 | lb/step | No |
| Methylene chloride (Dichloromethane) | | | 1.93000000 | 1.93000000 | lb/step | No |
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

Operating Scenario: OS3 GMP

Step: ST2 Depress

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| TSP | | | | | lb/step | No |
| Toluene | | | 0.28000000 | 0.28000000 | lb/step | No |
| Triethylamine | | | 0.89000000 | 0.89000000 | lb/step | No |
| VOC (Total) | | | 7.53000000 | 7.53000000 | lb/step | No |
| Xylene | | | 0.07000000 | 0.07000000 | lb/step | No |

Subject Item: BP29 Batch Manu.

ST3 Dry

Operating Scenario: OS3 GMP

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | 43.98000000 | 43.98000000 | lb/step | No |
| Aniline | | | 43.98000000 | 43.98000000 | lb/step | No |
| СО | | | | | lb/step | No |
| Formaldehyde | | | 43.98000000 | 43.98000000 | lb/step | No |
| HAPs (Total) | | | 505.90000000 | 505.90000000 | lb/step | No |
| Hydrogen chloride | | | 4.30000000 | 4.30000000 | lb/step | No |
| Methyl alcohol (Methanol) | | | 43.98000000 | 43.98000000 | lb/step | No |
| Methyl ethyl ketone (MEK) | | | 43.98000000 | 43.98000000 | lb/step | No |
| Methyl tert-butyl ether | | | 43.98000000 | 43.98000000 | lb/step | No |
| Methylene chloride (Dichloromethane) | | | 43.98000000 | 43.98000000 | lb/step | No |
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: **BP29 Batch Manu.**

Operating Scenario: OS3 GMP ST3 Dry

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| SO2 | | | | | lb/step | No |
| TSP | | | | 0.00000000 | lb/step | No |
| Toluene | | | 43.98000000 | 43.98000000 | lb/step | No |
| Triethylamine | | | 43.98000000 | 43.98000000 | lb/step | No |
| VOC (Total) | | | 494.8000000 | 494.80000000 | lb/step | No |
| Xylene | | | 43.98000000 | 43.98000000 | lb/step | No |

Subject Item: BP29 Batch Manu.

ST4 Heat

Operating Scenario: OS3 GMP

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | 0.23000000 | 0.23000000 | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| СО | | | | | lb/step | No |
| Formaldehyde | | | 0.93000000 | 0.93000000 | lb/step | No |
| HAPs (Total) | | 0.01100000 | 12.50000000 | 12.50000000 | lb/step | No |
| Hydrogen chloride | | | 1.29000000 | 1.29000000 | lb/step | No |
| Methyl alcohol (Methanol) | | | 0.20000000 | 0.20000000 | lb/step | No |
| Methyl ethyl ketone (MEK) | | | 0.43000000 | 0.43000000 | lb/step | No |
| Methyl tert-butyl ether | | | 1.76000000 | 1.76000000 | lb/step | No |
| Methylene chloride (Dichloromethane) | | | 2.03000000 | 2.03000000 | lb/step | No |
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |

New Jersey Department of Environmental Protection **Potential to Emit**

Subject Item: **BP29** Batch Manu.

Operating Scenario: OS3 GMP ST4 Heat

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Рb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |
| TSP | | | | | lb/step | No |
| Toluene | | | 0.11000000 | 0.11000000 | lb/step | No |
| Triethylamine | | | 0.35000000 | 0.35000000 | lb/step | No |
| VOC (Total) | | | 4.23000000 | 4.23000000 | lb/step | No |
| Xylene | | | 0.05000000 | 0.05000000 | lb/step | No |

BP29 Batch Manu. Subject Item:

ST5 Hydrogen

Operating Scenario: OS3 GMP

Step:

Air Contaminant Category Emissions Total Units Alt. Em. Fugitive Emissions (HAPS) Emissions **Before Controls After Controls** Emissions Limit D D lb/step No Acetonitrile D D lb/step Aniline No lb/step CO No D lb/step Formaldehyde D No D D lb/step HAPs (Total) No Hydrogen chloride D D lb/step No Methyl alcohol (Methanol) D D lb/step No Methyl ethyl ketone (MEK) D D lb/step No D D lb/step Methyl tert-butyl ether No D lb/step Methylene chloride (Dichloromethane) D No lb/step No NOx (Total)

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: **BP29 Batch Manu.**

Operating Scenario: OS3 GMP

Step: ST5 Hydrogen

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |
| TSP | | | | | lb/step | No |
| Toluene | | | D | D | lb/step | No |
| Triethylamine | | | D | D | lb/step | No |
| VOC (Total) | | | D | D | lb/step | No |
| Xylene | | | D | D | lb/step | No |

Subject Item: **BP29** Batch Manu.

Operating Scenario: OS3 GMP

Step:

ST6 Purge

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | D | D | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| СО | | | | | lb/step | No |
| Formaldehyde | | | D | D | lb/step | No |
| HAPs (Total) | | | 1.38000000 | 1.38000000 | lb/step | No |
| Hydrogen chloride | | | 0.09000000 | 0.09000000 | lb/step | No |
| Methyl alcohol (Methanol) | | | D | D | lb/step | No |
| Methyl ethyl ketone (MEK) | | | D | D | lb/step | No |
| Methyl tert-butyl ether | | | 0.17000000 | 0.17000000 | lb/step | No |
| Methylene chloride (Dichloromethane) | | | 0.29000000 | 0.29000000 | lb/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

ST6 Purge

Operating Scenario: OS3 GMP

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |
| TSP | | | | | lb/step | No |
| Toluene | | | D | D | lb/step | No |
| Triethylamine | | | D | D | lb/step | No |
| VOC (Total) | | | 0.41000000 | 0.41000000 | lb/step | No |
| Xylene | | | D | D | lb/step | No |

Subject Item: BP29 Batch Manu.

| Operating | Scenario: | 083 | GMP |
|-----------|-----------|------|-----|
| Operating | Scenario. | 0.55 | Omn |

Step:

ST7 Transfer

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | 0.15000000 | 0.15000000 | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| СО | | | | | lb/step | No |
| Formaldehyde | | | 0.11300000 | 0.11300000 | lb/step | No |
| HAPs (Total) | | | 6.73000000 | 6.73000000 | lb/step | No |
| Hydrogen chloride | | | 0.40000000 | 0.40000000 | lb/step | No |
| Methyl alcohol (Methanol) | | | 0.12000000 | 0.12000000 | lb/step | No |
| Methyl ethyl ketone (MEK) | | | 0.30000000 | 0.30000000 | lb/step | No |
| Methyl tert-butyl ether | | | 0.96000000 | 0.96000000 | lb/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

ST7 Transfer

Operating Scenario: OS3 GMP

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Methylene chloride (Dichloromethane) | | | 1.18000000 | 1.18000000 | lb/step | No |
| NOx (Total) | | | | | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| Pb | | | | | lb/step | No |
| SO2 | | | | | lb/step | No |
| TSP | | | | | lb/step | No |
| Toluene | | | 0.08000000 | 0.08000000 | lb/step | No |
| Triethylamine | | | 0.26000000 | 0.26000000 | lb/step | No |
| VOC (Total) | | | 2.46000000 | 2.46000000 | lb/step | No |
| Xylene | | | D | D | lb/step | No |

Subject Item: BP29 Batch Manu.

Operating Scenario: OS3 GMP

Step:

ST8 Transfer

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Acetonitrile | | | 0.15000000 | 0.15000000 | lb/step | No |
| Aniline | | | D | D | lb/step | No |
| Formaldehyde | | | 0.48000000 | 0.48000000 | lb/step | No |
| HAPs (Total) | | | 6.73000000 | 6.73000000 | lb/step | No |
| Hydrogen chloride | | | 0.4000000 | 0.4000000 | lb/step | No |
| Methyl alcohol (Methanol) | | | 0.12000000 | 0.12000000 | lb/step | No |
| Methyl ethyl ketone (MEK) | | | 0.3000000 | 0.3000000 | lb/step | No |
| Methyl tert-butyl ether | | | 0.96000000 | 0.96000000 | lb/step | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: BP29 Batch Manu.

Operating Scenario: OS3 GMP

Step: ST8 Transfer

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|--------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| Methylene chloride (Dichloromethane) | | | 1.18000000 | 1.18000000 | lb/step | No |
| Toluene | | | 0.08000000 | 0.08000000 | lb/step | No |
| Triethylamine | | | 0.26000000 | 0.26000000 | lb/step | No |
| VOC (Total) | | | 2.46000000 | 2.46000000 | lb/step | No |
| Xylene | | | D | D | lb/step | No |

Subject Item:

BP29 Batch Manu.

Operating Scenario: OS4 Cleaning

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|----------|-------------------|
| СО | | | | | lb/batch | No |
| HAPs (Total) | | | 6.50000000 | 6.50000000 | lb/batch | No |
| Methyl alcohol (Methanol) | | | 6.50000000 | 6.50000000 | lb/batch | No |
| NOx (Total) | | | | | lb/batch | No |
| PM-10 (Total) | | | | | lb/batch | No |
| Pb | | | | | lb/batch | No |
| SO2 | | | | | lb/batch | No |
| TSP | | | 0.05000000 | 0.05000000 | lb/hr | |
| TSP | | | D | D | lb/batch | No |
| VOC (Total) | | | 6.50000000 | 6.50000000 | lb/batch | No |

New Jersey Department of Environmental Protection Potential to Emit

Subject Item: **BP29 Batch Manu.**

Operating Scenario: OS4 Cleaning ST1 Cleaning

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| HAPs (Total) | | | 6.50000000 | 6.50000000 | lb/step | No |
| Methyl alcohol (Methanol) | | | 6.50000000 | 6.50000000 | lb/step | No |
| PM-10 (Total) | | | | | lb/step | No |
| TSP | | | | 0.00000000 | lb/step | No |
| VOC (Total) | | | 6.50000000 | 6.50000000 | lb/step | No |

Subject Item:

BP29 Batch Manu.

Operating Scenario: OS5 Pilot Plant

Step:

| Air Contaminant Category (HAPS) | Fugitive Emissions | Emissions Before Controls | Emissions After Controls | Total Emissions | Units | Alt. Em. Limit |
|------------------------------------|-----------------------|------------------------------|-----------------------------|--------------------|---------|-------------------|
| PM-10 (Total) | | | 0.40000000 | 0.40000000 | tons/yr | |
| PM-2.5 (Total) | | | 0.4000000 | 0.40000000 | tons/yr | |
| TSP | | | 0.4000000 | 0.40000000 | tons/yr | |
| VOC (Total) | | | 2.5000000 | 2.50000000 | tons/yr | |