



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

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Commissioner

June 15, 2012

Ms. Wanda Gonzalez  
Site General Manager – Freetown Facility  
ISP Freetown Fine Chemicals Inc.  
238 South Main Street  
Assonet, Massachusetts 02702

**RE: ASSONET**  
Transmittal No.: X241631  
Application No.: SE-12-010  
Class: SM80-7  
FMF No.: 303123  
**AIR QUALITY AIR APPROVAL**

Dear Ms. Gonzalez:

The Massachusetts Department of Environmental Protection (“MassDEP”), Bureau of Waste Prevention, has reviewed your confidential Limited Plan Application (“Application”) listed above. This Application concerns the proposed construction and operation of peroxydione process equipment at your manufacturing facility located at 238 South Main Street, Assonet, Massachusetts (“Facility”).

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 “Air Pollution Control,” regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-J, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP’s review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner / operator (“Permittee”) must comply in order for the Facility to be operated in compliance with this Plan Approval.

## **1. DESCRIPTION OF FACILITY AND APPLICATION**

The Permittee produces polymers, specialty chemicals, and personal care products on a “batch” basis at the Facility. Each batch occurs over a period ranging from one to several days. A campaign has multiple batches lasting from several days to several weeks and consists of multiple process steps. The type of product, the quantity produced, and the production schedules vary from year to year.

The Permittee has proposed to install and operate process equipment in Building F-4 to expand its existing peroxydione production capabilities.

For the purposes of this Approval, Emission Unit (EU) B-452 includes the peroxydione process equipment described in the application. A Donaldson Torit DFT 2-8 Dust Collector rated at 3,500 CFM, is used to control particulate emissions from material handling transfer points in the process.

The batch processes at Permittee’s Facility qualify as chemical manufacturing process units (CMPU) under 40 CFR Part 63 Subpart VVVVVV “Area Source Generally Available Control Technology Requirements for Chemical Manufacturing Area Sources.” The feedstocks, intermediate products, and byproducts associated with the peroxydione production line will contain no urban HAP identified in Table 1 of Subpart VVVVVV. As such, the Permittee has indicated that the CMPU described in this Application will not be subject to Subpart VVVVVV. The Department has not accepted delegation of 40 CFR 63 Subpart VVVVVV, therefore any questions on this matter should be directed to the US Environmental Protection Agency, Region 1.

The Facility’s existing Approval (No. 4P10034, dated February 7, 2011) limits PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions to 6.00 tons per month (TPM) and 37.31 tons per year (TPY). In the current Application (No. SE-12-010), the Permittee proposes additional PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions of 0.02 TPM and 0.16 TPY. Accordingly, in this Approval (No. SE-12-010), the Facility-wide PM/PM<sub>10</sub>/PM<sub>2.5</sub> limits are revised to reflect the additional emissions from this process.

Best Available Control Technology (BACT) has been established for the dust collector in Table 2. This dust collector, which has a Minimum Efficiency Reporting Value (MERV) of 13, is designed to achieve a particulate control efficiency of 99.9% on 0.2 - 2 micron particles.

## 2. EMISSION UNIT (EU) IDENTIFICATION

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

| <b>Table 1</b> |                       |                                 |                                       |
|----------------|-----------------------|---------------------------------|---------------------------------------|
| <b>EU#</b>     | <b>Description</b>    | <b>Design Capacity</b>          | <b>Pollution Control Device (PCD)</b> |
| B-452          | Peroxydone Production | As Described in the Application | Dust Collector                        |

**Table 1 Key:**

EU# = Emission Unit Number

PCD = Pollution Control Device

## 3. APPLICABLE REQUIREMENTS

### A. OPERATIONAL, PRODUCTION AND EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2:

| <b>Table 2</b> |   |                        |                                    |
|----------------|---|------------------------|------------------------------------|
| <b>EU#</b>     | <b>Operational / Production Limit</b>   | <b>Air Contaminant</b> | <b>Emission Limit</b>              |
| B-452          | 90% Capture Efficiency  | PM                     | 0.02 TPM                           |
|                | 99.9% Collection Efficiency of Dust Collector PCD   | PM <sub>10</sub>       | 0.16 TPY                           |
|                | Pressure differential across the Dust Collector PCD maintained between 2 and 9.6 inches of water, gauge | PM <sub>2.5</sub>      | 0.002 grains per actual cubic foot |
|                |   | Opacity                | 0%                                 |
| Facility-wide  | See Approval No. 4P10034  | PM                     | 6.02 TPM                           |
|                |   | PM <sub>10</sub>       | 37.47 TPY                          |
|                |   | PM <sub>2.5</sub>      |                                    |

**Table 2 Key:**

EU# = Emission Unit Number

PCD = Pollution Control Device

PM = Total Particulate Matter

PM<sub>10</sub> = Particulate Matter less than or equal to 10 microns in diameter

PM<sub>2.5</sub> = Particulate Matter less than or equal to 2.5 microns in diameter

TPM = tons per month

TPY = tons per consecutive 12-month period

**B. COMPLIANCE DEMONSTRATION**

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5:

| <b>Table 3</b> |   |
|----------------|---|
| <b>EU#</b>     | <b>Monitoring and Testing Requirements</b>  |
| B-452          | 1. The Permittee shall install and monitor a differential pressure gauge across the Dust Collector PCD as described in the Application.                       |
|                | 2. The Permittee shall track usage of all materials to enable emission calculation and recordkeeping databases.   |
| Facility-wide  | 3. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.                  |
|                | 4. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. |

**Table 3 Key:**

EU# = Emission Unit Number  
 PCU = Pollution Control Device

| <b>Table 4</b> |   |
|----------------|---|
| <b>EU#</b>     | <b>Record Keeping Requirements</b>  |
| B-452          | 1. The Permittee shall maintain daily emission records to demonstrate compliance with the fiscal monthly limits. The Permittee's fiscal month approximates a calendar month and contains between 28 and 35 days.  |
|                | 2. The Permittee shall perform emission calculations for each fiscal month. PM, PM <sub>10</sub> , and PM <sub>2.5</sub> emissions are calculated based on a qualitative assignment of dusting potentials for dry and powdered materials as identified in LPA No. SE-12-010.  |
|                | 3. The Permittee shall compile this information on a fiscal month and a consecutive 12-month period summary for PM, PM <sub>10</sub> , and PM <sub>2.5</sub> emissions to ensure compliance with the established emission limitations. These emissions shall be added to those compiled for the entire Facility in accordance with MassDEP Approval No. 4P10034. The Permittee shall use the forms as contained in Attachment No. 5. of MassDEP Approval No. 4P10034.   |
| Facility-wide  | 4. The Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve month period (current month plus prior eleven months). These records shall be compiled no later than the 15 <sup>th</sup> day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at <a href="http://www.mass.gov/dep/air/approvals/aqforms.htm#report">http://www.mass.gov/dep/air/approvals/aqforms.htm#report</a> . |

| <b>Table 4</b> |   |
|----------------|---|
| <b>EU#</b>     | <b>Record Keeping Requirements</b>  |
|                | 5. The Permittee shall maintain records of monitoring and testing as required by Table 3.   |
|                | 6. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU and PCD approved herein on-site.   |
|                | 7. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU, PCD and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.  |
|                | 8. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU, PCD, and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation. |
|                | 9. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.  |
|                | 10. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.  |
|                | 11. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.  |

**Table 4 Key:**

- EU# = Emission Unit Number
- PCD = Pollution Control Device
- SOMP = Standard Operating and Maintenance Procedure
- USEPA = United States Environmental Protection Agency

| <b>Table 5</b> |  |
|----------------|--|
| <b>EU#</b>     | <b>Reporting Requirements</b>  |
| Facility-wide  | 1. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).   |
|                | 2. The Permittee shall notify the Southeast Regional Office of MassDEP, BWP Compliance and Enforcement Chief by telephone (508) 946-2878, email, sair@state.ma.us or fax (508) 947-6557 as soon as possible, but no later than three (3) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to Compliance and Enforcement Chief at MassDEP within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s). |
|                | 3. The Permittee shall report every year to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.  |

| <b>Table 5</b> |  |
|----------------|--|
| <b>EU#</b>     | <b>Reporting Requirements</b>  |
|                | 4. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30-days from MassDEP's request.  |
|                | 5. The Permittee shall submit to MassDEP for approval a stack emission pretest protocol, at least 30 days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements. |
|                | 6. The Permittee shall submit to MassDEP a final stack emission test results report, within 45 days after emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.          |

**Table 5 Key:**

EU# = Emission Unit Number

**4. SPECIAL TERMS AND CONDITIONS**

A. The Permittee is subject to and shall comply with the Special Terms and Conditions as contained in Table 6:

| <b>Table 6</b> |   |
|----------------|---|
| <b>EU#</b>     | <b>Special Terms and Conditions</b>   |
| B-452          | 1. The Permittee shall limit potential emissions from the Facility, as described in Table 2. The Permittee shall comply with all record keeping, operating limitations, notification procedures, monitoring, testing and reporting requirements stated herein to verify that the emission limits contained in this Conditional Approval are not exceeded. |
| Facility-Wide  | 2. Any prior Plan Approvals issued under 310 CMR 7.02 shall remain in effect unless specifically changed or superseded by this Plan Approval. The Facility shall not exceed the emission limits and shall comply with approved conditions specified in the prior Plan Approval(s) unless specifically altered by this Plan Approval.                      |

**Table 6 Key:**

EU# = Emission Unit Number

B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including but not limited to rain protection devices known as "shanty caps" and "egg beaters."

C. The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7, for the Emission Units that are regulated by this Plan Approval:

| <b>Table 7</b> |   |  |  |  |
|----------------|---|--|--|--|
| <b>EU#</b>     | <b>Stack Height Above Ground (feet)</b> | <b>Stack Inside Exit Dimensions (inches)</b> | <b>Stack Gas Exit Velocity Range (feet per second)</b> | <b>Stack Gas Exit Temperature Range (°F)</b> |
| B-452          | 41.0                                    | 16   | 15 – 94  | 100 - 120                                    |

**Table 7 Key:**

EU# = Emission Unit Number

°F = Degree Fahrenheit

**6. GENERAL CONDITIONS**

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that construction or demolition shall be done in accordance occur which 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.

- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. The Permittee shall conduct emission testing, if requested by MassDEP, in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. If required, a pretest protocol report shall be submitted to MassDEP at least 30 days prior to emission testing and the final test results report shall be submitted within 45 days after emission testing.
- K. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

## **7. MASSACHUSETTS ENVIRONMENTAL POLICY ACT**

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain "Fail-Safe Provisions," which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

## **8. APPEAL PROCESS**

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts  
Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Should you have any questions concerning this Plan Approval, please contact Dan Kamieniecki by telephone at (508) 946-2717, or in writing at the letterhead address.

**This final document copy is being provided to you electronically by the  
Department of Environmental Protection. A signed copy of this document  
is on file at the DEP office listed on the letterhead.**

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John K. Winkler  
Permit Chief  
Bureau of Waste Prevention

ecc: Freetown Board of Health  
Freetown Fire Department  
MassDEP/Boston – Y. Tian  
MassDEP/SERO – J. Winkler, M. Pinaud, L. Black  
ISP Corp. – E. Morin  
Environmental Resource Management – A. Garrahan