

STATEMENT OF BASIS for NIPRO PHARMAPACKAGING AMERICAS CORP

TITLE V OPERATING PERMIT RENEWAL AND PERMIT MODIFICATION

Program Interest (PI): 75505 / Permit Activity Number: BOP180001

I. FACILITY INFORMATION

Nipro PharmaPackaging Americas Corp. is located at 1633 Wheaton Ave, Millville, Cumberland County, NJ 08332 and consists of a glass manufacturing facility. The facility is owned and operated by Nipro PharmaPackaging Americas Corp.

The facility is classified as a major facility based on its potential to emit 92.6 tons per year of nitrogen oxides.

This permit does not contain any hazardous air pollutants.

II. AREA ATTAINMENT CLASSIFICATION

The Federal Clean Air Act (CAA) sets National Ambient Air Quality Standards (NAAQS) for six common air pollutants. These commonly found air pollutants (also known as "criteria pollutants") are particulate matter, ground-level ozone, carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and lead. The US Environmental Protection Agency (USEPA) also classifies areas as "attainment" or "nonattainment" for each criteria pollutant, based on the magnitude of an area's problem. Nonattainment classifications are used to specify what air pollution reduction measures an area must adopt, and when the area must reach attainment. Currently, the entire State of New Jersey is designated as nonattainment for the 8-hour ozone NAAQS. New Jersey is designated attainment for all other pollutants. For nonattainment classification refer to <https://www.epa.gov/green-book/green-book-national-area-and-county-level-multi-pollutant-information>.

III. BACKGROUND AND HISTORY

The equipment that emits air contaminants from this facility include: one natural gas-fired heating boiler, one natural gas fired space heater, four diesel oil-fired emergency generators, six glass manufacturing furnaces using electricity as their primary heat source with supplemental natural gas, sixteen storage vessels and material handling equipment equipped with particulate filters that provide no less than 99% reduction of particulate emissions.

Table 1 - Operating Permit Revision History (located at the end of this document) provides a summary of all the changes that have been incorporated into the operating permit through seven-day notice changes, administrative amendments, minor modifications, or significant modifications since the approval of the initial operating permit or the most recent renewal thereof. Please refer to the attached explanation sheet for the structure and configuration of conditions of approval, included in the Facility Specific Requirements section of this permit.

This is a Permit Modification with Renewal and includes the following changes:

1. Reduced the operating hours of Furnace X (U100) to more accurately reflect actual operations and associated emissions from 8,760 hours per year to 4,080 hours per year. Emissions limits from this source have been reduced accordingly.
2. Reduced the operating hours for soda lime production in furnaces P (U144), Q (U150) and R (U151) to ensure compliance with the established annual emissions limits in the summary operating scenario (OS0) for these units. U144:OS2 was reduced from 8760 to 1030 hours per year; U150:OS2 was reduced from 8760 to 1089 hours per year; U151:OS2 was reduced from 8760 to 1352 hours per year.
2. Stack testing requirements for Furnace X (U100) were modified to reflect the limited operation of this furnace. Stack testing will be required only if a particular glass type (specialty or soda lime) is produced.
3. Stack testing requirements for soda lime production in Furnace L (U143), Furnace P (U144), Furnace Q (U150) and Furnace R (U151) were modified so that stack testing is required 6 months after starting soda lime production.
4. Glass pull rates for furnaces R (U151), Q (U150), P (U144), L (U143) and S (U301) were updated based on 105% of the average pull rate utilized in the recent stack tests. U151 was reduced from 22.5 tons per

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day (tpd) to 20.9 tpd; U150:OS1 was reduced from 22.4 tpd to 20.5 tpd, U150:OS2 was reduced from 25 tpd to 20.5 tpd; U143:OS1 was reduced to from 25 tpd to 19.4 tpd, U143:OS2 was reduced from 25 tpd to 18.5 tpd; U144 was reduced from 25 tpd to 19.2 tpd; U301 was increased from 34 tpd to 34.8 tpd.

5. PM-10 emissions rates for furnaces R (U151), Q (U150), P (U144), L (U143) and S (U301) were updated based on 110% of the highest test result in a recent stack test: U151:OS1 was increased from 0.300 lb/hr to 0.500 lb/hr; U150:OS1 was reduced from 0.810 lb/hr to 0.690 lb/hr; U143:OS1 was increased from 0.110 lb/hr to 0.150 lb/hr, U143:OS2 was reduced from 0.300 to 0.0600 lb/hr; U144:OS1 was reduced from 0.500 lb/hr to 0.250 lb/hr; U301:OS1 was reduced from 3.19 lb/hr to 0.210 lb/hr.

6. Annual emissions rates of PM-10 for furnaces R (U151), Q (U150), P (U144), L (U143) and S (U301) were updated to incorporate new hourly emissions rates and to exclude overflow/weir emissions as de minimis: U151 was increased from 1.36 tpy to 2.17 tpy; U143 was reduced from 1.36 tpy to 0.670 tpy; U144 was established at 1.11 tpy; U150 was reduced from 3.60 tpy to 3.04 tpy; U301 was reduced from 14.0 tpy to 0.940 tpy.

7. Added PM-2.5 PTE limits to U100, U143, U144, U151, U106, U150, U159, U163, U164, U165, U166, U201, U301 consistent with N.J.A.C. 7:27-22.

8. Corrected the details of U165, E516 to indicate a 500kW Perkins engine rather than the 568kW Taylor engine.

9. Corrected particulates emissions limit for U143:OS2 from 5.3 lb/hr to 5.45 lb/hr based on engine heat input rating.

This renewal will change the allowable emission limits as listed in the following table:

Allowable Emission Limits	Facility's Potential Emissions (tons per year)*									
	VOC (total)	NO _x	CO	SO ₂	TSP (total)	PM ₁₀ (total)	PM _{2.5} (total)	Pb	HAPs (total)	CO _{2e} (total)
Current Permit	8.45	95.3	28.3	72.2	36.7	36.8	N/A	N/A	N/A	70,809
Proposed Permit	7.26	92.6	26.7	72.2	31.9	31.2	31.2	N/A	N/A	43,102
Change (+ / -)	-1.19	-2.70	-1.60	0.00	-4.8	-5.6	N/A	N/A	N/A	-27,707

VOC Volatile Organic Compounds

NO_x Nitrogen Oxides

CO Carbon Monoxide

SO₂ Sulfur Dioxide

TSP Total Suspended Particulates

* Other Any other air contaminant regulated under the Federal Clean Air Act. This permit does not contain any air pollutants under this category.

PM₁₀ Particulates under 10 microns

PM_{2.5} Particulates under 2.5 microns

Pb Lead

HAPs Hazardous Air Pollutants

CO_{2e} Carbon Dioxide equivalent

IV. CASE-BY-CASE DETERMINATIONS

No case-by-case determinations were required for this permit action.

V. EMISSION OFFSET REQUIREMENTS

This permit action is not subject to Emission Offset requirements.

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VI. BASIS FOR MONITORING AND RECORDKEEPING REQUIREMENTS

The facility's operating permit includes monitoring, recordkeeping and reporting requirements that are sufficient to demonstrate the facility's continued compliance with the applicable requirements consistent with the following:

1. Provisions to implement the testing and monitoring requirements of N.J.A.C. 7:27-22.18, the recordkeeping and reporting requirements of N.J.A.C. 7:27-22.19, and all emissions monitoring and analysis procedures or compliance assurance methods required under the applicable requirements, including any procedures and methods promulgated pursuant to 40 CFR 64; and
2. Where the applicable requirement does not require direct periodic monitoring of emissions, the Department requires periodic monitoring of surrogate parameters sufficient to yield reliable data from the relevant time period that are representative of the facility's compliance with the permit.

For the emergency generators in U159, U163 and U165, the facility monitors the hours of operation as a surrogate for the long-term emissions limits of VOC, NOx, CO, SO2, TSP, PM10, PM2.5.

For the manufacturing and materials handling equipment in U166, U200, U201, the facility monitors the total material transferred as a surrogate for the long-term emissions limits of TSP, PM10 and PM2.5.

For the glass furnaces, boiler and space heater in U100, U106, U107, U143, U144, U150, U151, U301, the facility monitors the fuel usage as a surrogate for the long-term emissions limits of VOC, NOx, CO, SO2, TSP, PM10, PM2.5. The annual combustion adjustment is used to monitor the short-term limits of CO and NOx for U106 and U301.

For the cullet conveyor in U167, the hourly total throughput is used as a surrogate for the short-term emissions limits of TSP.

3. In some cases, direct periodic monitoring of emissions and/or surrogate parameters is not required due to one or more of the following:
 - Equipment size and capacity limitations,
 - Subject equipment being permitted at the maximum rated capacity,
 - There is no specific state or Federal standard that applies to this piece of equipment,
 - Not a pollutant of concern for this piece of equipment,
 - Agreements with EPA on the frequency of testing and monitoring for combustion sources.

Based on the above criteria, there is no direct or surrogate monitoring for the following pieces of equipment:

U152, U153, U154, U157, U158

VII. APPLICABLE STATE AND FEDERAL RULES

The facility is subject to New Jersey Air Pollution Control Regulations, codified in N.J.A.C. 7:27-1 through 34, as applicable. A complete text of these regulations is available at:

<http://www.nj.gov/dep/aqm/rules27.html>

The facility is subject to Federal regulations listed below.

NSPS Subpart A: General Provisions

NSPS Subpart IIII: Stationary Compression Ignition Internal Combustion Engines

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MACT Subpart A: General Provisions

MACT Subpart ZZZZ: Stationary Reciprocating Internal Combustion Engines

The Greenhouse Gas (GHG) emissions from this facility are 43,102 TPY CO₂e and there is no GHG emissions increase. This renewal with modification is not subject to PSD rules at 40 CFR 52.21.

VIII. FACILITY'S COMPLIANCE STATUS

The Responsible Official at the facility has certified that the facility currently meets all applicable requirements of the Federal Clean Air Act and the New Jersey Air Pollution Control Act. Based on this certification, the Department's evaluation of the information included in the facility's application, and a review of the facility's compliance status, the Department has concluded that this air pollution control operating permit should be approved.

The facility has submitted a timely and complete application to renew their operating permit and an application shield is in effect.

This operating permit includes a permit shield, pursuant to the provisions of N.J.A.C. 7:27-22.17. A permit shield provides that compliance with the relevant conditions of the operating permit shall be deemed compliance with the specific applicable requirements that are in effect on the date of issuance of the draft operating permit, and which form the basis for the conditions in the operating permit.

Also, prior to the expiration of the five-year period, the facility will be required to apply for a renewal of this operating permit, at which time the Department will evaluate the facility and issue a public notice with its findings.

IX. EXEMPT ACTIVITIES

The facility's operating permit does not include exempt activities such as office and interior maintenance activities, maintenance shop activities, food preparation facilities, cafeterias and dining rooms, etc. A complete list of exempt activities, as allowed by the Operating Permit rule, can be found at N.J.A.C. 7:27-22.1.

Table 1 - Operating Permit Revision History

Permit Activity Number	Type of Revision	Description of Revision	Final Action Date
BOP170001	Minor Modification	<p>This minor modification addressed the following changes:</p> <ol style="list-style-type: none"> 1. Add three NSV/SL cullet crushers to be incorporated as U166 OS1, OS2, and OS3; 2. add one W-33 cullet conveyor to be incorporated as U167 OS1; 3. add one cullet crusher to be incorporated as U162 OS16; and 4. add one 1.1 MMBtu/hr space heater to be incorporated as U107 OS1; 	7/18/2017
BOP160002	Significant Modification	<p>This modification addressed the following changes:</p> <ol style="list-style-type: none"> 1. Update hourly total suspended particulate matter (TSP) calculation methodology for numerous pieces of raw material handling equipment in emission units U147 operating scenarios OS2-9, U148 OS1-5, U149 OS1-7), U152, OS1, U153, OS1-2, U157, OS1, U158, OS1-11, U200, OS1-6, and U201, OS 1, 6, 10, 11-18, 2. Reassignment of Bin 3A and Bin 3B as part of the North Operations (U149) and 3. Removal of Furnace M (U145 E114) and forming bowl (U145 E71) from the Operating Permit. <p>The allowable particulate emissions from raw material handling have decreased by 1.11 TPY. Allowable emissions from Furnace M (U145) of VOCs, 0.8 TPY, NO_x, 11.1 TPY, CO, 0.61 TPY, SO₂, 8.76 TPY and TSP & PM-10, 5.26 TPY have been removed from the Operating Permit.</p>	12/30/2016
BOP160003	Minor Modification	<p>This minor modification adds a second cullet crusher E94 to U162 (OS15) for the Furnace L production line in parallel with the current crusher. The amount of cullet does not change. Particulate emissions from Furnace L (U143) cullet crushing will not increase.</p>	10/11/2016

BOP150003	Minor Modification	<p>This modification established by stack testing 1) a lower minimum cullet process rate (15%) at U143, OS2, Ref #8 and</p> <p>2) in accordance with Condition 14 for Emission Unit 143, OS Summary, included allowable PM10 limits for Furnace L while producing soda lime glass. This is an increase in allowable of 0.8 tons per year.</p> <p>U143, OS Summary, Ref #13 (now #11) was changed to read: "1.36 TPY,"</p> <p>Ref #14 was removed as the test requirement had been satisfied, and</p> <p>Finally, U143, OS2, Ref #7 was revised to "Maximum emission rate of PM-10 (Total) <= 0.3 lb/hr."</p>	1/27/2016
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FACILITY NAME (FACILITY ID NUMBER)
BOP050001

Activity Number assigned by the Department

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit Number assigned by the Facility

Brief description of emission unit

Emission Unit: U40 Sewage Sludge Incinerators
Operating Scenario: OS Summary

OR OS2 Fluidized Bed Incinerator

OS Summary lists all rules and requirements that apply to an emission unit. An emission unit may contain one or more pieces of equipment and corresponding operating scenarios.

OSX denotes the operating scenario number and lists the rules and requirements that apply to a scenario. An operating scenario represents various ways (or scenarios) a piece of equipment is permitted to operate.

Item Number

Description of applicable requirement

Monitoring method to ensure compliance

Recordkeeping to show facility's compliance

Actions and submittals required for the facility

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	The permittee shall conduct an annual performance test for each pollutant in Table 2 of 40CFR62 Subpart LLL between 11 and 13 calendar months after the previous performance test or within 60 days of a process change. [40 CFR 62.16000(a)]	Other: Conduct the performance test using the test methods, averaging methods and minimum sampling volumes or durations as specified in 40CFR62 Subpart LLL and according to the testing, monitoring and calibration requirements specified in 40 CFR 62.16015(a). [40 CFR 62.16000(a)].	Other: (1) Maintain records of the results of initial, annual and any subsequent performance tests conducted to determine compliance with the emission limits and standards and/or to establish operating limits, as applicable. [40 CFR 62.16025(e)].	Submit a report: Annually to the Administrator and to the Department. The permittee shall submit an annual compliance report as specified in 40 CFR 62. [40 CFR 62.16000(d)]

Rule citation for applicable requirement

Rule citation for monitoring requirement

Rule citation for recordkeeping requirement

Rule citation for submittal/ action requirement

Explanation Sheet for Facility Specific Requirements