

STATEMENT OF BASIS for NIPRO PHARMAPACKAGING AMERICAS CORPORATION

TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION

Program Interest (PI): 75505 / Permit Activity Number: BOP210001

I. FACILITY INFORMATION

Nipro PharmaPackaging Americas Corporation 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 Corporation.

The facility is classified as a major facility based on its potential to emit 103 tons per year of nitrogen oxides.

This permit allows individual hazardous air pollutants to be emitted at a rate not to exceed: 0.0000430 tons/year of Cadmium.

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.

Health Risk Assessment was conducted as part of the review of this permit application and health risk was determined to be negligible consistent with NJDEP Technical Manual 1003.

This is a Permit Modification and includes the following changes:

1. The glass pull rate for U151 Electric Melt Glass Furnace R (U151) was increased from 20.9 tons of glass per day to 38.9 tons of glass per day.

Natural gas fuel usage limits for U151:OS1 & 2 were increased from 24.2 to 44.4 MMscf per consecutive 12 month period; fuel monitoring requirements were added.

A natural gas fired burner for glass conditioner 2, forming bowl 2, and overflow weir 2 (E517) was added to Furnace R in new operating scenario U151:OS4. PTE emission limits for U151:OS4 were established as follows: NO_x at 0.150 lb/hr, CO at 0.130 lb/hr, cadmium at 0.00000170 lb/hr.

One new baghouse (CD153) was added to control particulate emissions from Furnace R.

Energy input from electric boost for Furnace R (E131) was increased by an additional 105 kW resulting in a maximum gross heat input increase from 2.75 to 5.10 MMBtu/hr.

Combustion process adjustment requirements were added in U151:OS0.

PTE emission limits for U151:OS3 were revised: CO corrected from 0.0620 to 0.130 lb/hr based on AP-42 and Cadmium was added at 0.00000170 lb/hr.

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Emission limits for U151:OS1 and U151:OS2 were updated based on stack test results for Furnace R (TST170003 and TST190001) and Furnace L (TST170005) and the new pull rate. In U151:OS1 PTE emission limit changes: VOC increased from 0.310 to 0.420 lb/hr, NOx increased from 2.26 to 4.21 lb/hr, CO decreased from 1.00 to 0.110 lb/hr, SO2 decreased from 2.00 to 0.140 lb/hr, TSP increased from 0.250 to 0.770 lb/hr, PM10 and PM2.5 increased from 0.500 to 1.54 lb/hr, cadmium was added at 0.00000253 lb/hr. In U151:OS2, VOC decreased from 0.310 to 0.080 lb/hr, NOx increased from 2.26 to 4.21 lb/hr, CO decreased from 1.00 to 0.020 lb/hr, SO2 increased from 2.00 to 4.40 lb/hr, TSP decreased from 1.70 to 0.120 lb/hr, PM10 and PM2.5 were added at 0.199 lb/hr, cadmium was added at 0.00000253 lb/hr. Annual emissions limits for U151 were updated: VOC from 1.40 to 1.85 tons/year, NOx emissions from 10.5 to 19.8 tons/year, CO from 4.65 to 1.85 tons/year, SO2 from 8.76 to 3.5 tons/year, TSP emissions from 1.15 to 3.39 tons/year, PM10 and PM2.5 from 2.10 to 6.74 tons/year, and HAPs and cadmium were added at 0.0000430 tons/year.

2. A SOTA limit of 2.60 lb NOx/ton of glass removed was established for Furnace R in U151:OS Summary. A SOTA limit of 99% control or 0.01 gr/dcsf of PM-10 was established for the control devices of Furnace R in CD148, CD150 and CD153. Stack test requirements were added for CD148, CD150 and CD153.

3. Two new cold end crushers (E518 and E519) were added to the Production Line Cullet Crushers at U162:OS17 and OS18. No changes were made to annual emissions.

4. One new batch conveyer (E520) was added to convey raw material from the existing S Elevator to the existing Q/R Conveyer at U147:OS10. No changes were made to annual emissions.

5. One alley burner was added to existing IS5. Two conveyor trim (ribbon) burners and two glaze burners were added to existing IS27. Cold end application sprays to support the Furnace R expansion were added to existing IS29. Total insignificant source emissions were updated: NOx from 17.4 to 18.7 tons/year, VOC from 1.05 to 1.13 tons/year, CO from 5.19 to 6.29 tons/year, SO2 from 0.172 to 0.180 tons/year, TSP and PM-10 from 2.07 to 2.17 tons/year.

6. Operating Permit Section A Pollutant Emissions Summary for Significant and Insignificant Sources PTE emissions were updated accordingly.

This modification will also change the facility-wide 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	8.30	92.6	27.3	66.8	31.9	16.1	16.1	0.00	0.00	43,102
Proposed Permit	8.84	103	25.6	61.5	34.2	20.7	20.7	0.00	0.0300	46,934
Change (+ / -)	+0.540	+10.4	-1.70	-5.30	+2.3	+4.6	+4.6	0.00	+0.0300	+3832

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

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The Department has determined that the use of electric boost for the glass furnace (U151, E131) meets State of the Art (SOTA) control requirements for NOx pursuant to N.J.A.C. 7:27-22.35.

The Department has determined that use of a baghouse (CD148, CD150 & CD153) for the glass furnace (U151, E131) meets State of the Art (SOTA) control requirements for PM-10 and PM-2.5 pursuant to N.J.A.C. 7:27-22.35.

V. EMISSION OFFSET REQUIREMENTS

This permit action is not subject to Emission Offset requirements.

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 glass furnace, boiler and space heater in U151, the facility monitors the fuel usage as a surrogate for the long-term emissions limits of VOC, NOx, CO, SO₂, TSP, PM₁₀, PM_{2.5} and Cadmium and electric usage as a surrogate for the long-term emissions limits of NOx and pressure drop across the particulate filters CD148, CD150 or CD153 as a surrogate for the long-term emissions limits of TSP, PM₁₀ and PM_{2.5}.

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.

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>

This modification is also subject to Federal regulations listed below.

NSPS Subpart A: General Provisions
NSPS Subpart CC: Glass Manufacturing Plant

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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 46,934 TPY CO₂e and the GHG emissions increase are 3,832 TPY CO₂e. This 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.

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.

Prior to the expiration of the Operating Permit's five-year term, the facility will be required to apply for a renewal, 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.

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