

# STATEMENT OF BASIS for AMERICAN BILTRITE INC

## TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION

Program Interest (PI): 46046 / Permit Activity Number: BOP200001

### I. FACILITY INFORMATION

American Biltrite Inc is located at 105 Whittendale Drive, Moorestown, Burlington County, NJ 08057 and consists of a plant that manufactures pressure sensitive tapes. The facility is owned and operated by American Biltrite Inc.

The facility is classified as a major facility based on its potential to emit 142.1 tons per year of volatile organic compounds.

It is also classified as a major hazardous air pollutant (HAP) facility. A HAP emitting facility is designated as major when the allowed emissions exceed 10 tons per year of any individual hazardous air pollutant or 25 tons per year of any combination of individual hazardous air pollutants that may be emitted simultaneously.

This permit allows individual hazardous air pollutants to be emitted at a rate not to exceed 36.5 tons per year of toluene.

### 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 (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), 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: four water based adhesive surface coating machines, five dryer ovens, a solvent based adhesive coating machine equipped with a thermal oxidizer with no less than 96% reduction efficiency for volatile organic compound emissions, and a solvent based adhesive coating machine equipped with a thermal oxidizer with no less than 98% reduction efficiency for volatile organic compound 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:

- Modification application BOP210001 was incorporated.
- The Responsible Official was changed to Joe Derr
- Included PM-2.5 PTE Emissions for U1, U2, U3, U4, U5, and U8 consistent with N.J.A.C. 7:27-22
- For U1, U2 and U3 (Water Based Adhesive Surface Coaters), OS1 and OS2 were combined into a single operating scenario named "Water Based Coating with or without Silicone" and a monitoring requirement for the VOC TPY limits was added to require monthly calculations based on a rolling 12 month period.
- For U4 (Water Based Adhesive Surface Coater), OS1 and OS2 were combined into a single operating scenario named "Water Based Coating with or without Silicone-Primer" and OS5 and OS6 were combined into a single operating scenario named "Water Based Coating with or without Silicone-Main"

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-Xylene and toluene emissions were removed from U1, U2, U3 and U4 because the emissions are below reporting threshold

-The maximum allowable VOC content in coatings for U1, U2, U3 and U4 was increased to 0.6% by weight, based on the worst-case coating. The VOC lb/hr limit during surface coating for these emission units was increased to 5.38 lb/hr. There are no changes to VOC tpy emissions for U1, U2, U3 & U4.

-The VOC lb/hr limit for U5 was increased to 16.5 lb/hr based on stack test TST170001. There is no change to VOC tpy emissions for U5.

-The toluene lb/hr limit for U5 OS1 was increased to 11.53 lb/hr based on the worst-case coating. There is no change to toluene tpy emissions for U5.

-The coating usage limit for U5 was increased to 550 lb/hr based on stack test TST170001

-Federal requirements were moved to GR1 NSPS Subpart RR Applicability Determination Requirement for U3-U5 & U8, GR2 NSPS Subparts A & RR Requirements for U5 & U8 and GR3 MACT Subparts A & JJJJ Requirements for U5 & U8.

-Requirements to continuously monitor oxygen were removed for U5 and U8 because the Total Hydrocarbon Continuous Emission Monitor limits are not corrected to a percentage of oxygen.

-An additional MACT JJJJ compliance option was added for U5 and U8 where compliance is demonstrated by meeting an organic HAP control efficiency of  $\geq 95\%$ . See GR3 Ref#16.

-Performance test requirements were added to U5 and U8 to demonstrate compliance with HAP capture and control efficiencies required by MACT JJJJ

-The distance to property line for PT2-PT6 (U2) was changed from 130 feet to 150 feet.

-The stack height for PT13 (U8) was changed from 35 feet to 40 feet and the distance to property line for PT13 was changed from 350 feet to 150 feet.

-TPY PTE from combustion sources was changed to be based on the permitted annual natural gas usage. This results in a reduction of facility wide NO<sub>x</sub>, CO, TSP and PM-10 TPY emissions.

-Monitoring and recordkeeping requirements were added to all short-term and long-term ammonia emission limits

-The minimum operating temperature for CD2 was increased from 1,500 degrees F to 1,525 degrees F in accordance with manufacturer specifications.

-An option to use a signal to continuously monitor that the position of the damper is allowing exhaust to the thermal oxidizer (CD1) during solvent coating operations was added to U5 OS1 Ref#19.

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 <sub>x</sub>	CO	SO <sub>2</sub>	TSP (total)	PM <sub>10</sub> (total)	PM <sub>2.5</sub> (total)	Pb	HAPs (total)	CO <sub>2e</sub> (total)
Current Permit	142.1	31.4	21.8	N/A	3.38	3.36	N/A	N/A	47.4	37,665
Proposed Permit	142.1	18.2	15.1	N/A	1.36	1.36	1.36	N/A	36.5	37,665
Change (+ / -)	N/A	-13.2	-6.7	N/A	-2.02	-2.00	1.36	N/A	-10.9	N/A

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VOC	Volatile Organic Compounds	PM <sub>10</sub>	Particulates under 10 microns
NO <sub>x</sub>	Nitrogen Oxides	PM <sub>2.5</sub>	Particulates under 2.5 microns
CO	Carbon Monoxide	Pb	Lead
SO <sub>2</sub>	Sulfur Dioxide	HAPs	Hazardous Air Pollutants
TSP	Total Suspended Particulates	CO <sub>2</sub> e	Carbon Dioxide equivalent
* Other	Any other air contaminant regulated under the Federal Clean Air Act. There is no change to the ammonia emissions.		

### CASE-BY-CASE DETERMINATIONS

No case-by-case determinations were required for this modification.

### IV. EMISSION OFFSET REQUIREMENTS

This modification is not subject to Emission Offset requirements.

### V. 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 surface coating operations in U1, U2, U3, U4 and U5 OS2, the facility monitors the coating usage (gal/day) and VOC content as surrogates for the short-term emission limits for VOC.

For surface coating operations in U1, U2, U3, U4 and U5 OS2, the facility monitors the coating usage (gal/day) and the ammonium hydroxide concentration in coating formulations as surrogates for the short-term emission limits for ammonia.

For surface coating operation in U5 OS1 and U8, the facility monitors the coating usage (gal/hr), VOC content and HAP content as surrogates for the short-term (lb/hr) emission limits for VOC and HAPs. For the U5 and U8 thermal oxidizers, the facility continuously monitors combustion chamber temperature and outlet THC concentration as surrogates for destruction and removal efficiency of VOC.

For dryer ovens in U1, U2, U3 and U5 the facility monitors fuel use as the surrogate for the long-term (TPY) emission limits for VOC, NO<sub>x</sub>, CO, SO<sub>2</sub>, TSP, PM-10 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.

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#### VI. APPLICABLE STATE AND FEDERAL RULES

This modification 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 RR:	Pressure Sensitive Tape and Label Surface Coating Operations
MACT Subpart A:	General Provisions
MACT Subpart JJJJ:	Paper and Other Web Coating

The Greenhouse Gas (GHG) emissions from this facility are 37,665 TPY CO<sub>2</sub>e and there is no GHG emissions increase. This modification is not subject to PSD rules at 40 CFR 52.21.

#### VII. 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.

#### VIII. 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