## I. FACILITY INFORMATION

9000 River Road is located at 9000 River Road, Pennsauken, Camden County, NJ 08110 and consists of equipment to manufacture aluminum extruded products. The facility is owned and operated by VV9000 LLC

The facility is classified as a major facility based on its potential to emit 96.4 tons per year (TPY) of nitrogen oxides.

This permit allows individual hazardous air pollutants to be emitted at a rate not to exceed: 0.26 pounds per year of arsenic, 1.98 pounds per year of cadmium, 0.1 pounds per year of cobalt, 0.022 pounds per year of Dimethylbenz(a)anthracene (7,12-), 104 pounds per year of formaldehyde, 6320 pounds per year of hydrogen chloride, 4300 pounds per year of hydrogen fluoride and 0.0023 pounds per year of dioxins/furans (Total Equivalence to 2,3,7,8-tetrachlorodibenzo-p-dioxin).

## 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: ten heaters, four billet furnaces, three aging ovens, an aluminum holding furnace, an aging furnace, two boilers, four homogenizing ovens, four melting furnaces equipped with baghouses with no less than 99% reduction efficiency for particulate emissions, an abrasive blaster equipped with a cartridge filter with no less than 99% reduction efficiency for particulate emissions, two sulfuric acid tanks equipped with a scrubber with no less than 95% reduction efficiency for particulate and sulfuric acid emissions, an etch plating line equipped with a scrubber with no less than 95% reduction efficiency for particulate emissions, and an aluminum anodizing line equipped with a scrubber with no less than 95% reduction efficiency for 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:

-Subject Item Group GR1, Facility-wide natural gas usage limit of 240 MMft^3/yr and facility-wide emissions for the combustion significant source operations in emission units U1, U2, U11, U15, U16, U23, U24, U25 and U26, was removed.

-E59 Aluminum Aging Oven was removed (U11, OS3, 2.02 MMBtu/hr).

-E208 and E209 DoAll Bandsaws (U45) and associated baghouses CD27 and CD28 were removed

-IS3 Unheated VOC Degreasers and IS5 Touch-up Spray booths were removed

-The Operating Scenarios for emission units U1, U11, U15, U16, U24, U25 and U26 were renumbered to be sequential, starting from one.

-The natural gas usage limit for U23 Holding Furnace was increased from 74.57 MMft^3/yr to 77.29 MMft^3/yr based on 8760 hours per year of usage, resulting in potential to emit (PTE) increases for criteria pollutants and hazardous air pollutants (HAPs).

-For U24 Melting Furnaces, the tons per year (tpy) PTE limits for criteria pollutants and HAPs emitted due to natural gas combustion were returned to their original limit from prior to the addition of the GR1 Facility Wide natural gas usage limit. There were no changes to operating limits for each individual furnace. The TSP, PM-10 and PM-2.5 TPY emission limits were corrected to be based on 8760 hours per year of melting emissions as well as 8760 hours per year of combustion emissions, which were the operations permitted prior to the GR1 limit.

-The permitted maximum heat input for U1 OS2 was reduced from 9.76 MMBTU/hr to 4.4 MMBTU/hr and the permitted natural gas usage limit was reduced from 83.8 MMft^3/yr to 37.79 MMft^3/yr.

-The permitted maximum heat input for U1 OS3 was reduced from 8.65 MMBTU/hr to 7.2 MMBTU/hr and the permitted natural gas usage limit was reduced from 74.3 MMft^3/yr to 61.84 MMft^3/yr.

-The changes made during this permit activity result in allowable annual emissions changes as follows: Increase of VOC by 1.84 tpy, NOx by 75.3 tpy, CO by 60.2 tpy, TSP by 1.9 tpy, PM-10 by 1.9 tpy, PM-2.5 by 1.9 tpy, Arsenic by 0.00011 tpy, Cadmium by 0.00086 tpy, Cobalt by 0.00004 tpy, Dimethylbenz(a)anthracene (7,12-) by 0.0000091 tpy, and Formaldehyde by 0.043 tpy.

-Major HAP facility requirements in 40 CFR 63 Subpart DDDDD were removed from U26 Boilers because the facility is no longer major for HAPs.

-Major HAP facility requirements in 40 CFR 63 Subpart RRR were removed from U24 Furnaces because the facility is no longer major for HAPs.

-The facility Emission Point Inventory was corrected to show the actual points of discharge ot the atmosphere.

-Emission Point PT850, the combined emissions point for Melting Furnaces E305 and E306, was reclassified to be the emission point for only E305 with updated emission point parameters.

-Emission Point PT851, the emission point for E306, was added

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 | 4.7 | 21.1 | 12.4 | 0.05 | 19.6 | 19.6 | 19.6 | N/A | 5.32 | 1,545 |
| Proposed Permit | 3.4 | 96.4 | 72.6 | 0.05 | 21.4 | 21.4 | 21.4 | N/A | 5.36 | 10,120 |
| Change (+ / -) | -1.3 | +75.3 | +60.2 | +0 | +1.8 | +1.8 | +1.8 | N/A | +0.04 | +8,575 |

VOC Volatile Organic Compounds
$NO_x$ Nitrogen Oxides
CO Carbon Monoxide
$SO_2$ Sulfur Dioxide
TSP Total Suspended Particulates
$PM_{10}$ Particulates under 10 microns
$PM_{2.5}$ Particulates under 2.5 microns
Pb Lead
HAPs Hazardous Air Pollutants
$CO_2e$ Carbon Dioxide equivalent
* Other Any other air contaminant regulated under the Federal Clean Air Act. There is no change to the fluorides emissions.

## IV. CASE-BY-CASE DETERMINATIONS

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

## V. EMISSION OFFSET REQUIREMENTS

This modification is not subject to Emission Offset requirements. Although this modification has an increase of allowable annual NOx emissions of 75.3 tpy relative to the current permit BOP210001, the changes being made that constitute most of the emissions increase do not meet the applicability criteria of N.J.A.C. 7:27-18.2 because the subject equipment is not being constructed, reconstructed, or modified. The proposed increase in allowable NOx emissions in this modification is primarily due to the removal of the temporary facility-wide natural gas usage limit established in BOP210001. With this removal, there are no changes in operating limits to any individual piece of equipment, so there is no proposed increase in allowable emissions of NOx from newly constructed, reconstructed, or modified equipment under N.J.A.C. 7:27-18 for this portion of the modification. The only other contribution to the increase in NOx emissions is the natural gas usage limit for U23 Holding Furnace being increased from 74.57 MMft^3/yr to 77.29 MMft^3/yr, but the NOx emissions increase (0.14 tpy) caused by this change is far below the threshold for a significant net emission increase. In addition, the allowable annual NOx emissions prior to the facility-wide limit established by BOP210001 were 151 tpy, which is 55 tpy greater than the allowable annual NOx emissions in this modification.

## 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 U1 Billet Furnaces, U2 Heater, U11 Aging Ovens, U15 Space Heaters, U16 Homogenizing Ovens, U23 Holding Furnace, U25 Aging Oven and U29 Heating Systems, the facility monitors fuel use as the surrogate for the long-term (TPY) emission limits for VOC, NOx, CO, TSP, PM-10, PM-2.5 and HAPs.

   For U24 Melting Furnaces, the facility monitors fuel use as the surrogate for the long-term (TPY) emission limits for VOC, NOx, CO, and combustion HAPs. The facility monitors the total material transferred (TPY) as the surrogate for the long-term (TPY) emission limits for TSP, PM-10, PM-2.5 and process HAPs. Raw materials and total materials transferred (lb/hr) are monitored as surrogates for the short-term (lb/hr) emission limits for TSP, PM-10, PM-2.5 and process HAPs.

   For U26 boilers, the facility monitors fuel use as the surrogate for the long-term (TPY) emission limits for VOC, NOx, CO, TSP, PM-10, PM-2.5 and HAPs. Surrogate monitoring for the short-term (lb/hr) emission limits are combustion process adjustment for NOx and CO.

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**

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.

MACT Subpart A: General Provisions
MACT Subpart RRR: Secondary Aluminum Production

The Greenhouse Gas (GHG) emissions from this facility are 10,120 TPY CO2e and the GHG emissions increase are 8,575 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**