Introduction

The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

Summary Description of Proposed Project

Application for renewal of Air Title V Facility.

Attainment Status
AURUBIS BUFFALO INC is located in the town of BUFFALO in the county of ERIE.
The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Attainment Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter (PM)</td>
<td>ATTAINMENT</td>
</tr>
<tr>
<td>Particulate Matter&lt; 10µ in diameter (PM10)</td>
<td>ATTAINMENT</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO2)</td>
<td>ATTAINMENT</td>
</tr>
<tr>
<td>Ozone*</td>
<td>MARGINAL NON-ATTAINMENT</td>
</tr>
<tr>
<td>Oxides of Nitrogen (NOx)**</td>
<td>ATTAINMENT</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>ATTAINMENT</td>
</tr>
</tbody>
</table>

* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NOx) which are ozone precursors.
** NOx has a separate ambient air quality standard in addition to being an ozone precursor.

**Facility Description:**
Aurubis Buffalo Inc operates a manufacturing facility located at 70 Sayre Street, in Buffalo, New York in a mixed residential/industrial area. The facility employs approximately 625 people, and generally operates 7 days per week, 52 weeks per year. The site encompasses 79 acres including 1.1 million square feet of manufacturing area, storage and office space. The facility was established under different ownership about 1906, and became Outokumpu American Brass in 1990, Luvata in 2006, and ultimately Aurubis Buffalo Inc in 2011.

The facility manufactures and processes various alloys composed of copper and zinc. The major activities at the facility include: casting, annealing, hot rolling, and milling. In the cast shop, copper and other metals, including zinc alloy, are melted in electric induction furnaces and poured off into water cooled molds to form hot cakes. After heating, cakes may then be hot rolled to various thicknesses followed by being run through a milling line to create a uniform thickness. Various types of annealing furnaces are used to slowly heat and cool the alloy materials resulting in added strength and reduced brittleness. Depending on the material, strand anneals, bell anneals or cup annealing furnaces could be used. At the end of the annealing process, strand materials are generally run through an acidic bath to remove scale and metal oxides that have formed prior to being re-wound. Skimmings, grindings, dross and other materials are routinely sorted and collected for reuse in raw materials.

The facility has continued to expand production in recent years. In 1998, American Brass took over ownership of the four natural gas fired boilers for heat and process steam formerly owned by Encogen Four Partners, LLP. However, the boilers were replaced by heat recovery and exotherm-boilers (utilizing heat from other processes in the facility without consuming fuels), and in 2010 the natural gas fired boilers were dismantled and removed from the facility. In 1999, the facility permitted a new tinning line in which brass or copper strip passes through a pot of molten tin to apply a thin coating. In late 2000 and early 2001, the facility installed a new cleaning line operation for preparation of brass strip. In 2007, another minor modification was performed to include installation of a natural gas powered backup electric generator as an exempt source. The facility also has several machining operations, presses, and other metalworking operations that are not vented to the atmosphere. In addition to production, the facility performs several
maintenance operations, operates a water treatment facility for production wastewaters, and performs woodworking operations for pallets, etc.

The facility is subject to Title V permitting requirements due primarily to the carbon monoxide generated from the combustion of natural gas in the annealing furnaces and boilers. The facility is subject to Prevention of Significant Deterioration requirements for the same compounds. Emission calculations were prepared using a combination of published emission factors, stack test results, and engineering calculations as discussed in the application.

**Permit Structure and Description of Operations**

The Title V permit for AURUBIS BUFFALO INC is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process. A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device. [NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

- combustion - devices which burn fuel to generate heat, steam or power
- incinerator - devices which burn waste material for disposal
- control - emission control devices
- process - any device or contrivance which may emit air contaminants that is not included in the above categories.

AURUBIS BUFFALO INC is defined by the following emission unit(s):

**Emission unit 2ANEAL** - There are three types of annealing equipment in use at the Aurubis facility: strand anneals, bell anneals, and cup annealing furnaces. Copper alloy stock is heat treated in one of the three types of furnaces depending on the desired properties. The furnaces use natural gas to generate a carbon-rich atmosphere to heat-treat the metal.

**Emission unit 2ANEAL** is associated with the following emission points (EP):
00056, 00057, 00058, 00059, 00060, 00063, 00064, 00065, 00066, 00067, 00068, 00069

**Process: ANL is located at MULTIPLE LOCATIONS** - There are 12 annealing furnaces installed prior to 1970 in use at the facility to heat treat copper alloy. There are 3 types: strand anneals, bell anneals, and annealing furnaces. The 12 furnaces are located across 7 different buildings: building #24, #29, #31, #33, 2a, press room and the strip anneal bay. The furnaces use natural gas to create a carbon rich atmosphere for treating the alloy. The heat treating enhances the physical properties of the alloy making it stronger and/or more malleable. This process is similar to the annealing process used in the steel industry, however the same emission factors do not apply. Emissions from the annealing furnaces at the oab facility are based on stack testing results and natural gas usage records.

**Emission unit 3STRND** - The 148 strand anneal furnace uses natural gas to generate a carbon-rich
atmosphere to heat-treat the metal.

Emission unit 3STRND is associated with the following emission points (EP):
00061, 00062
Process: STR is located at 1, Building STANNEAL - An additional strand annealing furnace is in use at the facility to heat treat copper alloy, the 148 strand. This furnace uses natural gas to create a carbon rich atmosphere for treating the alloy. The heat treating enhances the physical properties of the alloy. This process is similar to the annealing process used in the steel industry, however the same emission factors do not apply. Emissions from the annealing furnaces at the Aurubis facility are based on stack testing results and natural gas usage records. The 148 strand anneal furnace was installed after 1974 and is subject to compliance with PSD regulations.

Emission unit 4HOTRL - Two natural gas furnaces are used to heat cakes of copper alloy prior to rolling. Emissions from these furnaces are from the combustion of natural gas. After rolling, bars are surface milled. Chips are transported by a vacuum system, are collected by two cyclones and a scrubber (installed January 2005). The collected chips are recycled.

Emission unit 4HOTRL is associated with the following emission points (EP):
00070, 00071, 00100
Process: CHT is located at 1, Building CAKESTRG - Natural gas is used to fire two furnaces, the 130 and 146 cake heaters. These furnaces are used to heat cakes of copper alloy prior to hot or cold rolling.

Process: MIL is located at 1, Building 25A - Copper alloy bars are surface milled at the torin mill, generating chips which are transported by a vacuum system. The chips are collected by a centrifugal precipitator and a rotoclone and are recycled.

Emission unit 6TREAT - A steam jacket dryer is used to dry filter cake at the wastewater treatment plant. A wet scrubber is used to control emissions. Control efficiency of the scrubber is 99%.

Emission unit 6TREAT is associated with the following emission points (EP):
00048
Process: DRY is located at 1, Building 1 - A steam jacket dryer is used to dry filter cake at the wastewater treatment plant. A wet scrubber is used to control emissions. Control efficiency of the scrubber is 99%.

Emission unit 7CRACK - A cracking tank is used to reclaim oil from an oil/water emulsion. Emissions of hydrogen sulfide and oil mist are vented through emission point 00050.

Emission unit 7CRACK is associated with the following emission points (EP):
00050
Process: OIL is located at 1, Building TUBEAY - Soluble oil and water is used as a coolant in the rolling operations at the facility. The oil and water emulsion is collected and separated in a cracking tank. The emissions from this process were calculated as part of the emission inventory and were found to be insignificant.
Emission unit 8SHAKE - The sorting shaker table is used to sort the casting stations' skimming and runner box debris prior to being sent out for brass/copper reclamation. Wetting the contents of the skimming boxes prior to dumping on the shaker table helps to minimize dust from this operation.

Emission unit 8SHAKE is associated with the following emission points (EP):
00052

Process: SHK is located at 1, Building SCRAPSTG - A sorting shaker table is used to sort the casting stations' skimming and runner box debris prior to being sent out for brass and copper reclamation. The emissions from this process were calculated in the emission inventory and were determined to be insignificant.

Emission unit 9TINLN - The emission unit consists of a flux application tank, an on-line molten tin application tank, a refining station molten tin tank and a scrubber to reduce emissions to atmosphere.

Emission unit 9TINLN is associated with the following emission points (EP):
00080, 00081, 00082

Process: GAS is located at 1, Building N CON. BAY - Natural gas is combusted in the flux dryer to provide heat to dry the flux before entering the tin bath, and in the on-line tin pot and refining tin pot to provide heat and maintain temperatures necessary to keep the tin molten.

Process: TIN is located at 1, Building N CON. BAY - Emissions collected by the scrubber system include hcl from the flux tank, flux dryer, and from the refining station. Zinc oxide mist is also collected by the scrubber system, from the refining station.

Emission unit 1CASTS - There are four casting stations in operation at the Aurubis facility, designated as castings stations 2, 3, 4, and 5. Copper stock and alloying elements are melted in electric induction furnaces and poured into water cooled molds to form cakes. Fluxing agents are used for mold release. Natural gas preheat torches are used at each casting station to maintain the temperature of the runner boxes. Overhead fans are used to vent fugitive emissions. Casting stations 2 and 3 have five fans each, casting station 4 has three fans, and casting station 5 has four fans. In addition, emissions from casting stations 2 through 4 are vented to a baghouse. Emissions from casting station 5 are vented to a second baghouse. In addition, the electric induction furnaces are subject to 40 CFR Part 60 Subpart M which has a 10% opacity limit.

Emission unit 1CASTS is associated with the following emission points (EP):
00030, 00033, 00034, 00040, 00055

Process: CAS is located at 1, Building CASTSHOP - Copper and alloying elements, including zinc alloy, are melted in electric induction furnaces and poured off into water cooled molds to form flat cakes. Charcoal, carbon black, and other fluxing agents are used to minimize excessive fuming. Two baghouses are utilized to control emissions. Overhead roof fans are also used to alleviate fugitive emissions.

Process: HTR is located at 1, Building CASTSHOP - Natural gas is combusted in preheat torches at each
of the five casting stations to maintain the temperature of the molten alloy as it is being pouted through the runner boxes. Emissions are vented through the baghouses as well as the overhead roof fans.

**Title V/Major Source Status**
AURUBIS BUFFALO INC is subject to Title V requirements. This determination is based on the following information:
The facility is subject to Title V permitting requirements due primarily to the carbon monoxide generated from the combustion of natural gas in the annealing furnaces and boilers. The facility is subject to Prevention of Significant Deterioration requirements for the same compounds. Emission calculations were prepared using a combination of published emission factors, stack test results, and engineering calculations as discussed in the application.

**Program Applicability**
The following chart summarizes the applicability of AURUBIS BUFFALO INC with regards to the principal air pollution regulatory programs:

<table>
<thead>
<tr>
<th>Regulatory Program</th>
<th>Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSD</td>
<td>NO</td>
</tr>
<tr>
<td>NSR (non-attainment)</td>
<td>NO</td>
</tr>
<tr>
<td>NESHAP (40 CFR Part 61)</td>
<td>NO</td>
</tr>
<tr>
<td>NESHAP (MACT - 40 CFR Part 63)</td>
<td>NO</td>
</tr>
<tr>
<td>NSPS</td>
<td>YES</td>
</tr>
<tr>
<td>TITLE IV</td>
<td>NO</td>
</tr>
<tr>
<td>TITLE V</td>
<td>YES</td>
</tr>
<tr>
<td>TITLE VI</td>
<td>NO</td>
</tr>
<tr>
<td>RACT</td>
<td>NO</td>
</tr>
<tr>
<td>SIP</td>
<td>YES</td>
</tr>
</tbody>
</table>

**NOTES:**
PSD  Prevention of Significant Deterioration (40 CFR 52, 6 NYCRR 231-7, 231-8) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NSR  New Source Review (6 NYCRR 231-5, 231-6) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NESHAP  National Emission Standards for Hazardous Air Pollutants (40 CFR 61, 6 NYCRR 200.10) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAA) which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's).

MACT  Maximum Achievable Control Technology (40 CFR 63, 6 NYCRR 200.10) - contaminant
and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.

NSPS New Source Performance Standards (40 CFR 60, 6 NYCRR 200.10) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

Title IV Acid Rain Control Program (40 CFR 72 thru 78, 6 NYCRR 201-6) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subpart A thru G, 6 NYCRR 200.10) - federal requirements that apply to sources which use a minimum quantity of CFC’s (chlorofluorocarbons), HCFC’s (hydrofluorocarbons) or other ozone depleting substances or regulated substitute substances in equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212-3, 220-1.6, 220-1.7, 220-2.3, 220-2.4, 226, 227-2, 228, 229, 230, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC’s and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.

SIP State Implementation Plan (40 CFR 52, Subpart HH, 6 NYCRR 200.10) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

Compliance Status
Facility is in compliance with all requirements.

SIC Codes
SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

<table>
<thead>
<tr>
<th>SIC Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3351</td>
<td>COPPER ROLLING AND DRAWING</td>
</tr>
</tbody>
</table>
Division of Air Resources
Permit Review Report

Permit ID: 9-1402-00021/00081
Renewal Number: 3
05/31/2022

SCC Codes
SCC or Source Classification Code is a code developed and used" by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information. Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC’s.

<table>
<thead>
<tr>
<th>SCC Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-03-090-34</td>
<td>PRIMARY METAL PRODUCTION PRIM METAL PROD-STEEL MFG(SEE 303015 FOR INTEGRATED IRON &amp; STEEL MACT) Heat Treating Furnaces: Annealing</td>
</tr>
<tr>
<td>3-03-900-03</td>
<td>PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - FUEL FIRED EQUIPMENT NATURAL GAS: PROCESS HEATERS</td>
</tr>
<tr>
<td>3-04-002-99</td>
<td>SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - COPPER Other Not Classified</td>
</tr>
<tr>
<td>3-04-050-01</td>
<td>SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - MISCELLANEOUS CASTING FABRICATING Other Not Classified</td>
</tr>
<tr>
<td>3-05-150-03</td>
<td>MINERAL PRODUCTS MINERAL PRODUCTS - CALCINING Grinding/Milling</td>
</tr>
<tr>
<td>3-99-900-03</td>
<td>MISCELLANEOUS MANUFACTURING INDUSTRIES MISCELLANEOUS MANUFACTURING INDUSTRIES NATURAL GAS: PROCESS HEATERS</td>
</tr>
<tr>
<td>3-99-999-94</td>
<td>MISCELLANEOUS MANUFACTURING INDUSTRIES MISCELLANEOUS INDUSTRIAL PROCESSES Other Not Classified</td>
</tr>
<tr>
<td>3-99-999-95</td>
<td>MISCELLANEOUS MANUFACTURING INDUSTRIES MISCELLANEOUS INDUSTRIAL PROCESSES Other Not Classified</td>
</tr>
</tbody>
</table>

Facility Emissions Summary
In the following table, the CAS No. or Chemical Abstract Service code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.’s contain a ‘NY’ designation within them. These are not true CAS No.’s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.’s do not do. As an example, volatile organic compounds or VOC’s are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE for each contaminant that is displayed represents the facility-wide PTE in tons per year (tpy) or pounds per year (lbs/yr). In some instances the PTE represents a federally enforceable emissions cap or limitation for that contaminant. The term ‘HAP’ refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

<table>
<thead>
<tr>
<th>Cas No.</th>
<th>Contaminant</th>
<th>PTE lbs/yr</th>
<th>PTE tons/yr</th>
<th>Actual lbs/yr</th>
<th>Actual tons/yr</th>
</tr>
</thead>
</table>
### NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

**Item A:** Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 201-1.10(b)

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to Section 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

**Item B:** Timely Application for the Renewal of Title V Permits - 6 NYCRR Part 201-6.2(a)(4)

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the

---

### Permit Review Report

**Permit ID:** 9-1402-00021/00081  
**Renewal Number:** 3  
**05/31/2022**

<table>
<thead>
<tr>
<th>Substance Code</th>
<th>Substance Description</th>
<th>MFR Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>068603-15-6</td>
<td>ALCOHOLS,C6-12</td>
<td>4999</td>
</tr>
<tr>
<td>000630-08-0</td>
<td>CARBON</td>
<td>2000000</td>
</tr>
<tr>
<td>007647-01-0</td>
<td>HYDROGEN CHLORIDE</td>
<td>19999</td>
</tr>
<tr>
<td>007783-06-4</td>
<td>HYDROGEN SULFIDE</td>
<td>4999</td>
</tr>
<tr>
<td>064742-32-1</td>
<td>LUBRICATING OILS (PETROLEUM), CHEMICALLY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NEUTRALIZED SPENT</td>
<td>4999</td>
</tr>
<tr>
<td>008012-95-1</td>
<td>MINERAL OIL</td>
<td>49999</td>
</tr>
<tr>
<td>001313-99-1</td>
<td>NICKEL OXIDE</td>
<td>6286</td>
</tr>
<tr>
<td>068476-80-2</td>
<td>OILS, VEGETABLE E, DEODORIZER DISTILLATES</td>
<td>4999</td>
</tr>
<tr>
<td>0NY210-00-0</td>
<td>OXIDES OF NITROGEN</td>
<td>79999</td>
</tr>
<tr>
<td>0NY075-00-0</td>
<td>PARTICULATES</td>
<td>49999</td>
</tr>
<tr>
<td>001310-58-3</td>
<td>POTASSIUM HYDROXIDE</td>
<td>4999</td>
</tr>
<tr>
<td>068918-36-5</td>
<td>SOAP, STOCK, C8-18, C18-UNSATD. ALKYL</td>
<td>4999</td>
</tr>
<tr>
<td>001310-73-2</td>
<td>SODIUM HYDROXIDE</td>
<td>4999</td>
</tr>
<tr>
<td>008052-41-3</td>
<td>STODDARD SOLVENT</td>
<td>49999</td>
</tr>
<tr>
<td>007446-09-5</td>
<td>SULFUR DIOXIDE</td>
<td>4999</td>
</tr>
<tr>
<td>007664-93-9</td>
<td>SULFURIC ACID</td>
<td>19999</td>
</tr>
<tr>
<td>007757-83-7</td>
<td>SULFUROUS ACID DISSODIUM SALT</td>
<td>19999</td>
</tr>
<tr>
<td>013463-67-7</td>
<td>TITANIUM DIOXIDE</td>
<td>19999</td>
</tr>
<tr>
<td>0NY100-00-0</td>
<td>TOTAL HAP</td>
<td>4999</td>
</tr>
<tr>
<td>0NY998-00-0</td>
<td>VOC</td>
<td>199999</td>
</tr>
</tbody>
</table>
date of permit expiration for permit renewal purposes.

Item C: Certification by a Responsible Official - 6 NYCRR Part 201-6.2(d)(12)
Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Item D: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.4(a)(2)
The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Item E: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.4(a)(3)
This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Item F: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.4(a)(5)
It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

Item G: Property Rights - 6 NYCRR 201-6.4(a)(6)
This permit does not convey any property rights of any sort or any exclusive privilege.

Item H: Severability - 6 NYCRR Part 201-6.4(a)(9)
If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

Item I: Permit Shield - 6 NYCRR Part 201-6.4(g)
All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

i. The ability of the Department to seek to bring suit on behalf of the State of...
New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;

ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;

iii. The applicable requirements of Title IV of the Act;

iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

Item J: Reopening for Cause - 6 NYCRR Part 201-6.4(i)

This Title V permit shall be reopened and revised under any of the following circumstances:

i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

Item K: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the
Division of Air Resources
Permit Review Report
Permit ID: 9-1402-00021/00081
Renewal Number: 3
05/31/2022

effective date of this permit, including, but not limited to, any enforcement action
authorized pursuant to the provisions of applicable federal law, the Environmental
Conservation Law of the State of New York (ECL) and Chapter III of the Official
Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The
issuance of this permit also shall not in any way affect pending or future enforcement actions
under the Clean Air Act brought by the United States or any person.

Item L: Federally Enforceable Requirements - 40 CFR 70.6(b)
All terms and conditions in this permit required by the Act or any applicable requirement,
including any provisions designed to limit a facility's potential to emit, are enforceable by
the Administrator and citizens under the Act. The Department has, in this permit, specifically
designated any terms and conditions that are not required under the Act or under any of its
applicable requirements as being enforceable under only state regulations.

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative
defense to penalties sought in an enforcement action brought by the
Department for noncompliance with emissions limitations or permit
conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through
properly signed, contemporaneous operating logs, or other relevant
evidence that:

(1) An emergency occurred and that the facility owner or
operator can identify the cause(s) of the emergency;
(2) The equipment at the permitted facility causing the
emergency was at the time being properly operated and maintained;
(3) During the period of the emergency the facility owner or
operator took all reasonable steps to minimize levels of emissions
that exceeded the emission standards, or other requirements in the
permit; and
(4) The facility owner or operator notified the Department
within two working days after the event occurred. This notice must
contain a description of the emergency, any steps taken to mitigate
emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner or operator
seeking to establish the occurrence of an emergency has the burden of
proof.

(c) This provision is in addition to any emergency or upset provision contained in any
applicable requirement. item_02

Item B: General Provisions for State Enforceable Permit Terms and Condition - 6
NYCRR Part 201-5
Division of Air Resources
Permit Review Report

Permit ID: 9-1402-00021/00081
Renewal Number: 3
05/31/2022

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Regulatory Analysis

<table>
<thead>
<tr>
<th>Location</th>
<th>Regulation</th>
<th>Condition</th>
<th>Short Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACILITY</td>
<td>ECL 19-0301</td>
<td>39</td>
<td>Powers and Duties of the Department with respect to air pollution control</td>
</tr>
<tr>
<td>1-CASTS</td>
<td>40CFR 60-M.132(b)</td>
<td>32</td>
<td>Secondary brass and bronze production plants - standard for particulate matter</td>
</tr>
<tr>
<td>FACILITY</td>
<td>40CFR 68</td>
<td>18</td>
<td>Chemical accident prevention provisions</td>
</tr>
<tr>
<td>FACILITY</td>
<td>40CFR 82-F</td>
<td>19</td>
<td>Protection of Stratospheric Ozone - recycling and emissions reduction</td>
</tr>
<tr>
<td>FACILITY</td>
<td>6NYCRR 200.6</td>
<td>1</td>
<td>Acceptable ambient air quality.</td>
</tr>
<tr>
<td>FACILITY</td>
<td>6NYCRR 200.7</td>
<td>10</td>
<td>Maintenance of equipment.</td>
</tr>
<tr>
<td>1-CASTS/00030</td>
<td>6NYCRR 200.7</td>
<td>33</td>
<td>Maintenance of equipment.</td>
</tr>
<tr>
<td>1-CASTS/00055</td>
<td>6NYCRR 200.7</td>
<td>34</td>
<td>Maintenance of equipment.</td>
</tr>
<tr>
<td>4-HOTRL/-/MIL</td>
<td>6NYCRR 200.7</td>
<td>36</td>
<td>Maintenance of equipment.</td>
</tr>
<tr>
<td>6-TREAT</td>
<td>6NYCRR 200.7</td>
<td>37</td>
<td>Maintenance of equipment.</td>
</tr>
<tr>
<td>9-TINLN</td>
<td>6NYCRR 200.7</td>
<td>38</td>
<td>Maintenance of equipment.</td>
</tr>
<tr>
<td>FACILITY</td>
<td>6NYCRR 201-1.4</td>
<td>40</td>
<td>Unavoidable noncompliance and violations</td>
</tr>
<tr>
<td>FACILITY</td>
<td>6NYCRR 201-1.7</td>
<td>11</td>
<td>Recycling and Salvage</td>
</tr>
<tr>
<td>FACILITY</td>
<td>6NYCRR 201-1.8</td>
<td>12</td>
<td>Prohibition of reintroduction of collected contaminants to the air</td>
</tr>
<tr>
<td>FACILITY</td>
<td>6NYCRR 201-3.2(a)</td>
<td>13</td>
<td>Exempt Activities - Proof of eligibility</td>
</tr>
</tbody>
</table>
Applicability Discussion:
Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

ECL 19-0301
This section of the Environmental Conservation Law establishes the powers and duties assigned to the
Department with regard to administering the air pollution control program for New York State.

6 NYCRR 200.6
Acceptable ambient air quality - prohibits contravention of ambient air quality standards without mitigating measures

6 NYCRR 200.7
Anyone owning or operating an air contamination source which is equipped with an emission control device must operate the control consistent with ordinary and necessary practices, standards and procedures, as per manufacturer's specifications and keep it in a satisfactory state of maintenance and repair so that it operates effectively

6 NYCRR 201-1.4
This regulation specifies the actions and recordkeeping and reporting requirements for any violation of an applicable state enforceable emission standard that results from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6 NYCRR 201-1.7
Requires the recycle and salvage of collected air contaminants where practical

6 NYCRR 201-1.8
Prohibits the reintroduction of collected air contaminants to the outside air

6 NYCRR 201-3.2 (a)
An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6 NYCRR 201-3.3 (a)
The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6 NYCRR Subpart 201-6
This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

6 NYCRR 201-6.4 (a) (4)
This mandatory requirement applies to all Title V facilities. It requires the permittee to provide information that the Department may request in writing, within a reasonable time, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The request may include copies of records required to be kept by the permit.

6 NYCRR 201-6.4 (a) (7)
This is a mandatory condition that requires the owner or operator of a facility subject to Title V requirements to pay all applicable fees associated with the emissions from their facility.

6 NYCRR 201-6.4 (a) (8)
This is a mandatory condition for all facilities subject to Title V requirements. It allows the Department to inspect the facility to determine compliance with this permit, including copying records, sampling and monitoring, as necessary.

6 NYCRR 201-6.4 (c)
This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

6 NYCRR 201-6.4 (c) (2)
This requirement specifies that all compliance monitoring and recordkeeping is to be conducted according to the terms and conditions of the permit and follow all QA requirements found in applicable regulations. It also requires monitoring records and supporting information to be retained for at least 5 years from the time of sampling, measurement, report or application. Support information is defined as including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

6 NYCRR 201-6.4 (c) (3) (ii)
This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6 NYCRR 201-6.4 (d) (4)
This condition applies to every Title V facility subject to a compliance schedule. It requires that reports, detailing the status of progress on achieving compliance with emission standards, be submitted semiannually.

6 NYCRR 201-6.4 (e)
Sets forth the general requirements for compliance certification content; specifies an annual submittal frequency; and identifies the EPA and appropriate regional office address where the reports are to be sent.

6 NYCRR 202-1.1
This regulation allows the department the discretion to require an emission test for the purpose of determining compliance. Furthermore, the cost of the test, including the preparation of the report are to be borne by the owner/operator of the source.
Division of Air Resources  
Permit Review Report

Permit ID: 9-1402-00021/00081  
Renewal Number: 3  
05/31/2022

6 NYCRR 202-2.5  
This rule specifies that each facility required to submit an emission statement must retain a copy of the statement and supporting documentation for at least 5 years and must make the information available to department representatives.

6 NYCRR 211.2  
This regulation limits opacity from sources to less than or equal to 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

6 NYCRR 215.2  
Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

40 CFR Part 68  
This Part lists the regulated substances and their applicability thresholds and sets the requirements for stationary sources concerning the prevention of accidental releases of these substances.

40 CFR Part 82, Subpart F  
Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act Amendments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

Facility Specific Requirements
In addition to Title V, AURUBIS BUFFALO INC has been determined to be subject to the following regulations:

40 CFR 60.132 (b)

6 NYCRR 201-6.4 (f)  
This section describes the potential for certain operational changes to be made by the facility owner or operator without first obtaining a permit modification. Changes made pursuant to this provision must meet all of the criteria described in this section to qualify for consideration as operational flexibility. The Department reserves the right to require the facility owner or operator to obtain a permit modification prior to making any changes at the facility pursuant to this section.

6 NYCRR 201-6.5 (a)  
This section identifies state enforceable requirements for Title V permits.

6 NYCRR 201-7.1
This section of Part 201-7 specifies the criteria that need to be met in order to restrict emissions to avoid Title V or other applicable requirements using federally enforceable permit conditions permit.

6 NYCRR 202-2.4 (a) (3)
Once a facility is required to submit annual emission statements electronically, emission statements must be submitted to the department per the specified schedule, in this regulation beginning the reporting year that a Title V permit containing a condition mandating electronic submittal is issued.

6 NYCRR 211.1
This regulation requires that no person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property.

6 NYCRR 212-1.6 (a)
This provisions requires that the facility owner or operator not cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

6 NYCRR 212-2.4 (b)
Particulate emissions from any process emission source, which received a B or C Environmental Rating, and for which an application was received by the department after July 1, 1973 are restricted to 0.050 grains per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis.

Compliance Certification
Summary of monitoring activities at AURUBIS BUFFALO INC:

<table>
<thead>
<tr>
<th>Location</th>
<th>Cond No.</th>
<th>Type of Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility/EU/EP/Process/ES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-CASTS</td>
<td>32</td>
<td>monitoring of process or control device parameters as surrogate</td>
</tr>
<tr>
<td>1-CASTS/00030</td>
<td>33</td>
<td>monitoring of process or control device parameters</td>
</tr>
<tr>
<td>1-CASTS/00055</td>
<td>34</td>
<td>monitoring of process or control device parameters</td>
</tr>
</tbody>
</table>
Basis for Monitoring

Maintenance of the vacuum system and cyclones will be performed to ensure the proper operation and collection efficiency.

The scrubber must be operated at all times of operation. The scrubber must be operated and maintained according to the manufacturers specifications.

Pressure drop through the baghouse will be measured on the outlet of the baghouse. A minimum pressure drop of 2 psi and a maximum of 6 psi will be monitored to demonstrate that the bags are intact, but not overloaded.

Opacity is limited to 20% during any six consecutive minutes.

Natural gas usage for the 148 strand anneal will be monitored to ensure that the CO emission limit of 100 tpy is not exceeded. Based on the 1994 stack test data, natural gas usage should be limited to 4,147,465 ft/3 per year.