

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1

Modification Number: 1



03/01/2006

Facility Identification Data

Name: FERRO ELECTRONIC MATERIAL SYSTEMS
Address: 4511 HYDE PARK BLVD
NIAGARA FALLS, NY 14305-0067

Owner/Firm

Name: FERRO CORPORATION
Address: 1000 LAKESIDE AVE
PO BOX 147000
CLEVELAND, OH 44114-7000, USA
Owner Classification: Corporation/Partnership

Permit Contacts

Division of Environmental Permits:
Name: DOUGLAS E BORSCHER
Address: 270 MICHIGAN AVE
BUFFALO, NY 14203-2999

Division of Air Resources:
Name: JACQUELINE DIPRONIO
Address: 270 MICHIGAN AVENUE
BUFFALO, NY 14203-2999

Air Permitting Contact:
Name: RUSSELL H STEIGER
Address: 4511 HYDE PARK BLVD
PO BOX 67
NIAGARA FALLS, NY 14305-0067
Phone:7162789423

Permit Description

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

This modification describes the addition of a dust collector identified as emission point 00217. The purpose of the additional collector is to draw particulate from the inside building 'monitor' of building



New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1 03/01/2006

115 that houses the three electric arc furnaces and facilitate particulate captur during upset conditions. In addition, emission unit 00007 which describes the manufacture of dielectric powders containing lead is no longer in operation and is to be removed from the permit.

Attainment Status

FERRO ELECTRONIC MATERIAL SYSTEMS is located in the town of NIAGARA in the county of NIAGARA.

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.)

Criteria Pollutant	Attainment Status
Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10µ in diameter (PM10)	ATTAINMENT
Sulfur Dioxide (SO2)	ATTAINMENT
Ozone*	MARGINAL NON-ATTAINMENT
Oxides of Nitrogen (NOx)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

* 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

This facility produces ceramic materials for resale and use in other forms of manufacturing. The processes employed include arc furnacing, milling, calcining, and mixing. The primary products manufactured are zirconium silicate, zirconium oxide, titanium oxide, sodium titanate, potassium titanate, calcium carbide with silicates, silicates with flourides, aluminum oxides, and dielectric powders primarily manufactured fom barium titanate.

Permit Structure and Description of Operations

The Title V permit for FERRO ELECTRONIC MATERIAL SYSTEMS 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



New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1

03/01/2006

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.

FERRO ELECTRONIC MATERIAL SYSTEMS is defined by the following emission unit(s):

Emission unit 000002 - Calcined and uncalcined materials are fed into a series of furnaces, heated into a slagged material, crushed, screened, and fed through a second stage calciner, screened, blended, pulverized and discharged for final product pack out.

Emission unit 000002 is associated with the following emission points (EP):

00201, 00202, 00203, 00205, 00206, 00207, 00208, 00209, 00210, 00211, 00212, 00213, 00214, 00215, 00216, 00217

It is further defined by the following process(es):

Process: B01 is located at FIRST FLOOR, Building 0000000162 - Three high temperature carbon arc furnaces (#9, #10, & # 11) used for the smelting of zirconium silicate. Amorphous silica fume dust (SiO₂) is released as a result of the smelting operation. Emissions from the three furnaces are exhausted to a single baghouse. Collected silica is primarily sold for off-site re-use.

Process: B02 is located at FIRST FLOOR, Building 0000000137 - Rotary fired gas calciner. Emissions associated with natural gas combustion by products, along with dust generated during calcining, are exhausted through a gravity settling chamber and then to a baghouse.

Process: B03 is located at FIRST FLOOR, Building 0000000143 - Rotary fired gas calciner and associated cooling system. Emissions associated with natural gas combustion by products along with generated dust are exhausted to a cyclone.

Process: B04 is located at FIRST FLOOR, Building 0000000143 - Organics volatilized during the carbon furnace bottom bake out process are exhausted through the calciner and associated cyclone and stack. No emissions control is provided by the cyclone. The calciner is not required to be operational during the furnace bake out process.

Process: B06 is located at FIRST FLOOR, Building 0000000143 - Pulverizer (hammer mill) and associated materials handling system. Dust generated is exhausted to a baghouse.

Process: B07 is located at FIRST FLOOR, Building 0000000123 - Mechanical dry mill and associated material handling system. Generated dust is exhausted to a baghouse.

Process: B08 is located at FIRST FLOOR, Building 0000000143 - Mechanical 8 x 8 dry mill and

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

associated material handling systems. Generated dust is exhausted to a baghouse.

Process: B09 is located at FIRST FLOOR, Building 0000000011 - Crushing/screening system in building 11 used for size reduction and associated materials handling system. Generated dust from the crusher, screen, and material handling equipment is exhausted to a baghouse.

Process: B10 is located at FIRST FLOOR, Building 0000000011 - Crushing/screening system in building 11 used for size reduction and associated materials handling system. Generated dust from crushers, screens, and material handling equipment is exhausted to a baghouse.

Process: B11 is located at FIRST FLOOR, Building 0000000008 - Crushing/screening system in building 8 used for size reduction and associated materials handling system. Generated dust from crushing, screening, and material handling equipment is exhausted to a baghouse.

Process: B12 is located at FIRST FLOOR, Building 0000000143 - This process located in building 143, consists of a materials handling system associated with the transfer into and from storage bins and associated with the transfer to the 6 x 60 calciner. It also includes a blending system for materials prior to discharge into the calciner. Dusts generated from the material handling processes are exhausted to a baghouse.

Process: B13 is located at FIRST FLOOR, Building 0000000018 - This process, located in building 18, consists of a materials blending system and associated materials handling equipment. Dust generated from the blending process and associated materials handling is exhausted to a baghouse.

Process: B14 is located at FIRST FLOOR, Building 0000000008 - Secondary screening system operated in conjunction with a crushing/screening system (process B09). Dust generated from screening and associated materials handling is exhausted to a baghouse.

Process: B15 is located at FIRST FLOOR, Building 0000000008 - Materials blending system and associated materials handling equipment located in building 8. Dust generated from the blending process and associated materials handling is exhausted to a baghouse.

Process: B16 is located at FIRST FLOOR, Building 0000000008 - Two magnetic separators used to separate magnetic and non magnetic materials as part of the ceramics processing operation. Dust generated as a result of material transfers in the process is exhausted to a baghouse.

Process: B17 is located at FIRST FLOOR, Building 0000000145 - Crushing/screening system for furnace slag. Large pieces of slag are crushed and screened as part of the initial size reduction processing of the material. Generated dust associated with the crushing, screening, and material handling systems is exhausted through a settling chamber and then into two similar baghouses.

Process: B19 is located at FIRST FLOOR, Building 0000000123 - Materials handling equipment, a cooler, and storage bins associated with the 7 x 40 calciner. Dust generated during material handling and cooling of calcined material is exhausted to a baghouse.

Process: B21 is located at Building 0000000134 - Magnetic separator for a material drying/mixing system. Generated dust is exhausted to two similar baghouses.

Emission unit 000008 - Industrial glass is fed into a ball mill and solvent is added to the mill, the material is rotated until a slurry forms and it is then pumped into a dryer for drying and final packout.

Emission unit 000008 is associated with the following emission points (EP):

00801, 00802, 00803, 00804, 00805, 00806

It is further defined by the following process(es):

Process: H01 is located at First Floor, Building 0000000103 - Process consists of pumping a slurry material containing glass and Isopropyl Alcohol into two tray dryers for drying. Fugitive emissions are created during the filling of the tray dryers. The air from each dryer is vented to the atmosphere.

Process: H02 is located at First Floor, Building 0000000103 - Process consists of a tray dumping

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

operation where dried trays of material are dumped into a container for a final packout. Currently a baghouse is being evaluated for controlling dust from this operation.

Process: H03 is located at First Floor, Building 0000000103 - Industrial glass fed into a ball mill which contains ceramic beads. Isopropyl Alcohol is added to the ball mill through a valve and the mill is then rotated for a set period of time until the contents become a slurry. During filling operations of the ball mill, fugitive isopropyl alcohol emissions are generated.

Process: H04 is located at 2nd Floor, Building 000000153A - This process consists of pumping a slurry of material containing glass and a solvent into a tray dryer that is placed under a lab hood for drying.

Process: H05 is located at 2nd Floor, Building 000000153A - Process consists of filling the mill with solids and solvent as well as final packout of the dried material.

Emission unit 000006 - This emission unit includes those processes associated with the production of HPB, HPB tamtrons, and various dielectric products. The HPB & HPB tamtrons process equipment includes a series of mix and process tanks, electric calciners, a filter press, blenders, and jet mills which lead to a final packout. This emission unit also includes dielectric products which are produced using a series of mixing, milling, calcining, drying, blending, screening and associated material handling equipment leading to final packout.

Emission unit 000006 is associated with the following emission points (EP):

00601, 00602, 00603, 00604, 00606, 00607, 00608, 00609, 00610, 00611, 00612, 00613, 00614, 00618, 00619, 00620, 00621, 00622, 00623, 00624, 00625, 00627, 00629, 00631, 00632, 00633, 00634, 00635, 00637, 00638

It is further defined by the following process(es):

Process: F01 is located at FIRST FLOOR, Building 0000000002 - The 6x60 rotary fired gas calciner located in building 2. Emissions from the calciner (natural gas combustion by-products and generated dust) are exhausted via natural draft through settling chamber and into the atmosphere..

Process: F02 is located at FIRST FLOOR, Building 0000000002 - The 6x50 rotary fired gas calciner located in building 2. Emissions from the calciner (natural gas combustion by-products and generated dust) are exhausted via natural draft through a settling chamber and into the atmosphere.

Process: F03 is located at FIRST FLOOR, Building 0000000002 - Material handling system associated with a belt dryer. The material handling system includes grinding equipment used for size reduction prior to final transfer of the material from the system. Dust generated from the system is exhausted to a baghouse. The product collector (Torit baghouse) discharges to the atmosphere.

Process: F04 is located at FIRST FLOOR, Building 0000000002 - Material handling system associated with a twin drum dryer. The material handling system includes grinding equipment used for size reduction prior to final transfer of the material from the system. Dust generated from the system is exhausted to a baghouse. The product collector (Torit baghouse) discharges to atmosphere.

Process: F05 is located at FIRST FLOOR, Building 0000000002 - Eight-inch jet mill located in building 2. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges into a hopper. Emissions are vented through the baghouse to the atmosphere

Process: F06 is located at FIRST FLOOR, Building 0000000147 - 20" jet mill located in building 147. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges product into a hopper. Emissions are vented through the baghouse to the atmosphere

Process: F07 is located at FIRST FLOOR, Building 0000000002 - Pulverizer (hammer mill) and associated material handling equipment located in building 2. Dust generated from milling and material

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

handling is exhausted to a baghouse.

Process: F08 is located at FIRST FLOOR, Building 0000000147 - A 20" jet mill located in building 147. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges product into a hopper. Emissions from the jet mill are vented through the baghouse product collector to the atmosphere.

Process: F09 is located at FIRST FLOOR, Building 0000000147 - A 20" jet mill located in building 147. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges product into a hopper. Emissions from the jet mill are vented through the baghouse product collector to the atmosphere.

Process: F10 is located at FIRST FLOOR, Building 0000000147 - Discharge hoppers for four jet mills located in building 147. Material discharged from the product collector is dropped into a hopper. Dust generated from transfer of jet-milled material into each hopper is exhausted to a single baghouse.

Process: F11 is located at FIRST FLOOR, Building 0000000147 - The filling and discharging of material from two blenders located in building 147. Dust generated during filling and unloading of the blenders is exhausted to a single baghouse.

Process: F12 is located at FIRST FLOOR, Building 0000000002 - A 24" jet mill located in building 2. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges product into a hopper. Emissions from the jet mill are vented through the baghouse product collector to the atmosphere.

Process: F13 is located at FIRST FLOOR, Building 0000000147 - A 20" jet mill located in building 147. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges product into a hopper. Emissions from the jet mill are vented through the baghouse product collector to the atmosphere.

Process: F14 is located at FIRST FLOOR, Building 0000000002 - The cooler and material handling equipment associated with the 6x50 calciner located in building 2. Dust generated during cooling and material transfer is exhausted to a baghouse.

Process: F15 is located at FIRST FLOOR, Building 0000000002 - The cooler and material handling equipment associated with the 6 x 60 calciner located in building 2. Dust generated during cooling and material transfers is exhausted to a baghouse.

Process: F16 is located at FIRST FLOOR, Building 0000000002 - A local exhaust used to control dust generated during weighing of product hoppers. The process is exhausted to a baghouse.

Process: F17 is located at FIRST FLOOR, Building 0000000002 - Exhaust fan for control of dust during a batch mixing operation associated with the 6 x 60 calciner located in building 2. Material and a small volume of water is added to a mixer and the blended material is conveyed directly to the calciner.

Generated dust is exhausted directly to the atmosphere.

Process: F18 is located at FIRST FLOOR, Building 0000000002 - Local exhaust for two mix tanks. Dust generated from the addition of solid material to the mix tanks is exhausted from the tank to the baghouse.

Process: F19 is located at FIRST FLOOR, Building 0000000002 - Local exhaust for a single mix tank. Dust generated from the addition of solid material to the mix tanks is exhausted from the tank directly to the atmosphere.

Process: F20 is located at FIRST FLOOR, Building 0000000163 - Two granulators are used to break apart clumped ceramic material as part of the sagger (small ceramic containers) loading process. Dust generated from the granulation process and sagger loading is exhausted to a baghouse.

Process: F21 is located at FIRST FLOOR, Building 0000000002 - Discharge of a cone blender after blending. No emissions are generated during blending. Dust generated during filling is exhausted to a

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

baghouse.

Process: F22 is located at FIRST FLOOR, Building 0000000002 - Filling of a cone blender prior to blending. No emissions are generated during blending. Dust generated during filling is exhausted to a baghouse.

Process: F24 is located at FIRST FLOOR, Building 0000000147 - Local ventilation associated with non-routine maintenance of TiCL₄ line pumps and valves.

Process: F25 is located at FIRST FLOOR, Building 0000000147 - An exhaust fan which provides ventilation for two mix tanks.

Process: F26 is located at FIRST FLOOR, Building 0000000002 - The discharge from a 24" jet mill to a product hopper. Dust generated during the discharge of a processed material into the hopper is exhausted to a baghouse.

Process: F27 is located at FIRST FLOOR, Building 0000000002 - Cone blending process. Dust is generated during the filling and discharge from the blender. No dust is generated during the blending process. Generated dust is exhausted to a baghouse.

Process: F28 is located at FIRST FLOOR, Building 0000000002 - A pulverizer 3th (hammer mill) and associated material handling equipment located in building 2. Dust generated is exhausted to a baghouse.

Process: F29 is located at FIRST FLOOR, Building 0000000147 - Ventilation system associated with the filling of the TiCL₄ storage tank. During filling operations displaced TiCl₄ vapors are exhausted to a water scrubber.

Process: F30 is located at FIRST FLOOR, Building 0000000147 - Local exhaust systems which provide ventilation for ten process/mix tanks. The ventilation systems exhausts vapor and dust to a water scrubber.

Process: F31 is located at FIRST FLOOR, Building 0000000147 - A vacuum filtration system. Vapors generated during the filtration process are exhausted to a water scrubber.

Process: F32 is located at FIRST FLOOR, Building 0000000002 - Two electrically heated kilns used to calcine ceramic materials. Dust and moisture generated during the calcining process are exhausted from each kiln to a baghouse.

Process: F35 is located at FIRST FLOOR, Building 0000000159 - Ventilation system associated with the filling of the NaOH storage tank. During filling operations displaced naoh vapors are exhausted to atmosphere

Process: F37 is located at First floor, Building 0000000002 - Process associated with the 6x60 and 6x50 calciner feed systems which discharge dust from the calciner feed into a baghouse and then to the atmosphere.

Process: F38 is located at First floor, Building 0000000002 - Local exhaust for a material blending system. Material is dumped into the Shar Mix Tank. Dust generated from the addition of solid material into the tank is exhausted from the tank to baghouse.

Process: F39 is located at First Floor, Building 0000000002 - A 24" Jet Mill located in Building 2. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges into a hopper. Emissions from the jet mill are vented through the product collector (baghouse) to atmosphere.

Process: F40 is located at First Floor, Building 0000000002 - Discharge from a 24" Jet Mill to a product hopper. Dust generated during the discharge of the processed material into the hopper is exhausted to a baghouse.

Process: F41 is located at First Floor, Building 0000000002 - Small material blending system using a Hockmeyer Mixer. Material is dumped into a small mixing tank for blending and subsequent processing in the Netzsch Mills. Dust generated during the loading of the tank is exhausted to a baghouse and then to

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263

Renewal Number: 1

Modification Number: 1



03/01/2006

the atmosphere.

Process: F42 is located at First Floor, Building 0000000002 - Tray dumping operation. Dried trays of material from the Quincy dryers are dumped into a hopper for further processing. The dust generated from the tray dumping operation is exhausted to a baghouse and then into the atmosphere.

Process: F43 is located at Building 0000000002 - The batch weight DC process consists of a material blending system and associated material handling equipment. Dust generated from the blending process and material handling equipment is exhausted to two similar baghouses in series.

Process: F44 is located at Building 0000000002 - The Batch Weigh DC process consists of a material blending system and associated material handling equipment. Dust generated from the blending process and material handling equipment is exhausted to two similar baghouses in series.

Emission unit 000005 - Uncalcined materials are dry milled, mixed with water to form a slurry, then fed through a series of wet mills and holding tanks. The slurry is then calcined, milled and screened for the final product which is discharged for final packout.

Emission unit 000005 is associated with the following emission points (EP):
00501, 00502, 00503

It is further defined by the following process(es):

Process: E01 is located at FIRST FLOOR, Building 0000000008 - Rotary gas fired calciner (7 X 70) and associated cooling system. Emissions associated with natural gas combustion by-products along with generated dust are exhausted via natural draft through a settling chamber and into the atmosphere.

Process: E02 is located at FIRST FLOOR, Building 0000000008 - Mechanical dry mill and the associated material handling system located in building 8 generated dust from the mill, the 7 x 70 calciner cooler, and associated material handling systems are exhausted to a baghouse.

Process: E03 is located at FIRST FLOOR, Building 0000000013 - Mechanical dry mill and the associated material handling system located in building 13 generated dust from the mill and material handling system is exhausted to a baghouse

Emission unit 000004 - Raw materials consisting of rutile, soda ash and pot ash are mixed and fed through a calciner, then milled, classified and screened for final pack out.

Emission unit 000004 is associated with the following emission points (EP):
00401, 00402

It is further defined by the following process(es):

Process: D01 is located at FIRST FLOOR, Building 0000000017 - Rotary fired gas calciner. Emissions associated with natural gas combustion by products, along with dust generated during calcining, are exhausted to a cyclone and then to a baghouse.

Process: D02 is located at FIRST FLOOR, Building 0000000017 - Mechanical dry mill, classifying system, and associated materials handling equipment. Generated dust from milling, classifying, and materials handling is exhausted to a baghouse.

Process: D03 is located at FIRST FLOOR, Building 0000000017 - Hammer mill and associated materials handling system. Dust generated during the milling process and material handling is exhausted to a baghouse.

Process: D04 is located at FIRST FLOOR, Building 0000000017 - A mixer, cooler, and materials handling equipment associated with the building 17 calciner. Emissions associated with dust generated during mixing, cooling, and material handling are exhausted to a cyclone and then to a baghouse.

Emission unit 000003 - Calcined and uncalcined materials are milled and discharged for pack out or

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

sent on for further processing.

Emission unit 000003 is associated with the following emission points (EP):
00301

It is further defined by the following process(es):

Process: C01 is located at FIRST FLOOR, Building 0000000123 - Mechanical dry mill and the associated material handling system. Generated dust from the mill and material handling system is exhausted to a baghouse.

Title V/Major Source Status

FERRO ELECTRONIC MATERIAL SYSTEMS is subject to Title V requirements. This determination is based on the following information:

Ferro Electronic Material Systems is a major source subject to 40 CFR Title V permitting requirements as determined by the potential to emit 6796 tons per year of particulate matter, 4479 tons per year of PM-10, and 379 tons per year of nitrogen oxides. Stack testing has been performed on various representative processes in order to develop emission factors which were used in conjunction with production rates in the completion of this Title V application.

Program Applicability

The following chart summarizes the applicability of FERRO ELECTRONIC MATERIAL SYSTEMS with regards to the principal air pollution regulatory programs:

Regulatory Program	Applicability
PSD	NO
NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	NO
NSPS	NO
TITLE IV	NO
TITLE V	YES
TITLE VI	NO
RACT	YES
SIP	YES

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263

Renewal Number: 1

Modification Number: 1



03/01/2006

NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52) - 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 Part 231) - 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) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA) 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) - 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) - 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) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subparts A thru G) - 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 212.10, 226, 227-2, 228, 229, 230, 232, 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) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will



New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1 03/01/2006

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.

SIC Code	Description
3295	MINERALS, GROUND OR TREATED

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.

SCC Code	Description
3-05-150-04	MINERAL PRODUCTS MINERAL PRODUCTS - CALCINING Finished Product Handling
3-05-150-02	MINERAL PRODUCTS
MINERAL PRODUCTS - CALCINING General	
3-05-150-03	MINERAL PRODUCTS MINERAL PRODUCTS - CALCINING Grinding/Milling
3-05-150-05	MINERAL PRODUCTS
MINERAL PRODUCTS - CALCINING Mixing	
3-05-150-01	MINERAL PRODUCTS MINERAL PRODUCTS - CALCINING Raw Material Handling
3-05-999-99	MINERAL PRODUCTS MINERAL PRODUCTS - OTHER NOT DEFINED Specify in Comments Field
3-99-999-89	MISCELLANEOUS MANUFACTURING INDUSTRIES MISCELLANEOUS INDUSTRIAL PROCESSES OTHER NOT CLASSIFIED
3-99-999-98	MISCELLANEOUS MANUFACTURING INDUSTRIES



New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1

03/01/2006

4-90-999-99

MISCELLANEOUS INDUSTRIAL PROCESSES
Other Not Classified
ORGANIC SOLVENT EVAPORATION
MISCELLANEOUS VOLATILE ORGANIC COMPOUND
EVAPORATION
Identify the Process and Solvent in Comments

Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Series 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 Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). 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 with 3 columns: Cas No., Contaminant Name, PTE. Row 1: 0NY075-00-0, PARTICULATES, >= 250 tpy

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Emergency Defense - 6NYCRR Part 201-1.5

An emergency constitutes an affirmative defense to an action brought 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 and/or operator can identify the cause(s) of the emergency;

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated;

(3) During the period of the emergency the facility owner and/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 and/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 and/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 B: Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 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 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR Part 201-6.3(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 date of permit expiration for permit renewal purposes.

Item D: Certification by a Responsible Official - 6 NYCRR Part 201-6.3(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 E: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)

The permittee must comply with all conditions of the Title V facility

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

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 F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(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 G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR Part 201-6.5(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 H: Property Rights - 6 NYCRR Part 201-6.5(a)(6)

This permit does not convey any property rights of any sort or any exclusive privilege.

Item I: Severability - 6 NYCRR Part 201-6.5(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 J: Permit Shield - 6 NYCRR Part 201-6.5(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

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

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 K: Reopening for Cause - 6 NYCRR Part 201-6.5(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



New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1

03/01/2006

(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 L:

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 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 M:

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:

General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

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

Location Facility/EU/EP/Process/ES	Regulation	Short Description	Condition
FACILITY	ECL 19-0301	Powers and Duties of the Department with respect to air pollution control	34
0-00002/00201	40CFR 64	COMPLIANCE ASSURANCE MONITORING	18
0-00005/00503	40CFR 64	COMPLIANCE ASSURANCE MONITORING	26
FACILITY	40CFR 68	Chemical accident prevention provisions	1-15
FACILITY	40CFR 82-F	Protection of Stratospheric Ozone - recycling and emissions reduction	11, 12
FACILITY	6NYCRR 200.6	Acceptable ambient air quality.	1-1
FACILITY	6NYCRR 200.7	Maintenance of equipment.	1-4
FACILITY	6NYCRR 201-1.4	Unavoidable noncompliance and violations	35
FACILITY	6NYCRR 201-1.7	Recycling and Salvage	1-5
FACILITY	6NYCRR 201-1.8	Prohibition of reintroduction of collected contaminants to the air	1-6
FACILITY	6NYCRR 201-3.2(a)	Exempt Activities - Proof of eligibility	1-7
FACILITY	6NYCRR 201-3.3(a)	Trivial Activities - proof of eligibility	1-8
FACILITY	6NYCRR 201-6	Title V Permits and the Associated Permit Conditions	1, 13, 14
FACILITY	6NYCRR 201-6.5(a)(4)	General conditions	1-9
FACILITY	6NYCRR 201-6.5(a)(7)	General conditions	

New York State Department of Environmental Conservation



Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1 03/01/2006

Fees	1-2			
FACILITY		6NYCRR 201-6.5 (a) (8)	General conditions	1-10
FACILITY		6NYCRR 201-6.5 (c)	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring	2
FACILITY		6NYCRR 201-6.5 (c) (2)	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring	3
FACILITY		6NYCRR 201-6.5 (c) (3) (ii)	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring	4
FACILITY		6NYCRR 201-6.5 (d) (5)	Compliance schedules	1-11
FACILITY		6NYCRR 201-6.5 (e)	Compliance Certification	5
FACILITY		6NYCRR 201-6.5 (f)	Operational flexibility	6
FACILITY		6NYCRR 201-6.5 (f) (6)	Off Permit Changes	1-12
FACILITY		6NYCRR 202-1.1	Required emissions tests.	1-13
FACILITY		6NYCRR 202-2.1	Emission Statements - Applicability	7
FACILITY		6NYCRR 202-2.5	Emission Statements - record keeping requirements.	8
FACILITY		6NYCRR 211.2	General Prohibitions - air pollution prohibited.	36
FACILITY		6NYCRR 211.3	General Prohibitions - visible emissions limited	1-14
0-00002		6NYCRR 212.10 (c) (3)	NOx and VOC RACT required at major facilities	17
0-00002		6NYCRR 212.3 (b)	General Process Emission Sources - emissions from existing emission sources	15
0-00002/00203/B03		6NYCRR 212.3 (b)	General Process Emission Sources - emissions from existing emission sources	19
0-00003/00301		6NYCRR 212.3 (b)	General Process Emission Sources - emissions from existing emission sources	20
0-00005/00501		6NYCRR 212.3 (b)	General Process Emission Sources - emissions from existing emission sources	23
0-00005/00502		6NYCRR 212.3 (b)	General Process Emission Sources - emissions from existing emission sources	24
0-00006		6NYCRR 212.3 (b)	General Process Emission Sources - emissions from existing emission sources	27, 28
0-00006/00625/F29		6NYCRR 212.4 (a)	General Process Emission Sources - emissions from new sources and/or modifications	31
0-00002		6NYCRR 212.4 (c)	General Process Emission Sources - emissions from new processes and/or	1-16



New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1 03/01/2006

0-00004	6NYCRR 212.4 (c)	modifications General Process Emission Sources - emissions from new processes and/or modifications	21
0-00004/00401	6NYCRR 212.4 (c)	General Process Emission Sources - emissions from new processes and/or modifications	22
0-00005/00503	6NYCRR 212.4 (c)	General Process Emission Sources - emissions from new processes and/or modifications	25
0-00006	6NYCRR 212.4 (c)	General Process Emission Sources - emissions from new processes and/or modifications	29
0-00006/00625	6NYCRR 212.4 (c)	General Process Emission Sources - emissions from new processes and/or modifications	30
0-00008/00802/H02	6NYCRR 212.4 (c)	General Process Emission Sources - emissions from new processes and/or modifications	33
FACILITY	6NYCRR 212.6 (a)	General Process Emission Sources - opacity of emissions limited	9
FACILITY	6NYCRR 215	Open Fires	1-3

Applicability Discussion:

Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

ECL 19-301.

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.

6NYCRR Part 200-.6

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

6NYCRR Part 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

6NYCRR Part 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

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6NYCRR Part 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6NYCRR Part 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6NYCRR Part 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.

6NYCRR Part 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.

6NYCRR Part 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.

6NYCRR 201-6.5(a)(4)

This mandatory requirement applies to all Title V facilities. It requires the



New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1

03/01/2006

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.

6NYCRR 201-6.5(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.

6NYCRR 201-6.5(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.

6NYCRR Part 201-6.5(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.

6NYCRR Part 201-6.5(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.

6NYCRR Part 201-6.5(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.

6NYCRR 201-6.5(d)(5)

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.

6NYCRR Part 201-6.5(e)

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

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.

6NYCRR 201-6.5(f)(6)

This condition allows changes to be made at the facility, without modifying the permit, provided the changes do not cause an emission limit contained in this permit to be exceeded. The owner or operator of the facility must notify the Department of the change. It is applicable to all Title V permits which may be subject to an off permit change.

6NYCRR Part 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.

6NYCRR Part 202-2.1

Requires that emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year.

6NYCRR Part 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.

6NYCRR Part 211-.2

This regulation prohibits any emissions of air contaminants to the outdoor atmosphere which may be detrimental to human, plant or animal life or to property, or which unreasonably interferes with the comfortable enjoyment of life or property regardless of the existence of any specific air quality standard or emission limit.

6 NYCRR Part 211.3

This condition requires that the opacity (i.e., the degree to which emissions other than water reduce the transmission of light) of the emissions from any air contamination source be less than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent.

6 NYCRR Part 215

Prohibits open fires at industrial and commercial sites.

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.



New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1

03/01/2006

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, FERRO ELECTRONIC MATERIAL SYSTEMS has been determined to be subject to the following regulations:

40CFR 64

The federal Compliance Assurance Monitoring (CAM) rule, 40 CFR Part 64, requires monitoring of control device, capture system, and/or process parameters to provide a reasonable assurance of compliance with emission limitations or standards. It applies to emission units that use a control device to comply with certain standards and limitations and that have potential pre-control device emissions equal to or greater than a major source threshold.

Acid Rain program requirements; stratospheric ozone protection requirements; post-1990 New Source Performance Standards, Emission Guidelines, and National Emission Standards for Hazardous Air Pollutants; and some other limitations are exempt from CAM. However, many of the exempt requirements are subject to less stringent periodic monitoring under 40 CFR Part 70 and 6NYCRR Subpart 201-6.

The monitoring requirements of CAM apply to emission point 00201 which exhausts emissions from three high temperature carbon arc furnaces used for the melting of zirconium and designated as 9, 10 & 11, located in emission unit 2; and emission point 00503, the 7 x 10 mill, located in emission unit 5. The monitoring plan requires that :

Visible emissions from the baghouse exhaust are monitored daily during a facility survey. The pressure drop across the baghouse is measured with a magnehelic differential pressure gauge., and weekly (or between production runs or result of VE evaluation) inspection according to I/M checklist; maintenance performed as needed. Excursions from the established opacity and baghouse are addressed by the inspection and maintenance procedures attached to this permit.

A monitoring report must be submitted semi-annually with the required compliance certifications and which summarizes the number, duration, and cause of exceedances and corrective actions taken. This report shall also include the number, duration, and cause of the magnehelic downtime other than routine downtime for calibration checks. These records are to be maintained for a period of five years.

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1



03/01/2006

6NYCRR 201-6.5 (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.

6NYCRR 201-6.5 (f)

This regulation defines in general terms under what circumstances changes would be allowed without a permit modification provided the permit contains sufficient operational flexibility provisions.

6NYCRR 212 .10 (c) (3)

Results from source tests conducted on the three electric arc furnaces located in emission unit 00002 demonstrated that actual nitrogen oxide(NOx) emissions are in excess of 100 tons per year and require compliance with the Reasonably Available Control Technology(RACT) requirements of 6NYCRR, Part 212.10. A RACT analysis was performed and submitted for the three single-phase electric arc furnaces and one small scale three-phase electric arc R & D furnace which has been removed since the issuance of the initial Title V, each described within emission unit 00002. Because there are no control options available, Ferro requested a technical variance from the RACT requirements. Both this Department and the United States Environmental Protection Agency(USEPA) have conducted a review of the RACT analysis and found it to be acceptable. This permit incorporates a special condition for emission unit 00002 which limits actual NOx emissions from these four sources to 15.9#/hour per furnace and 210 tons per year total. Each furnace consists of a steel shell with a flat bottom and an inner shell which is constructed of carbon, therefore, there is no refractory maintenance requirement. The variance request was formally submitted to the USEPA as a source specific revision to the State Implementation Plan(SIP).

6NYCRR 212 .3 (b)

This rule requires existing sources (in operation on or before July 1, 1973) of solid particulates with environmental rating of B or C which are not subject to Table 5 "Processes for which Permissible Emission Rate is Based on Process Weight, to be limited to an particulate emission rate not to exceed 0.15 grains per dry standard cubic foot.

6NYCRR 212 .4 (a)

This rule requires compliance with the degree of control specified in Tables 2, 3 and 4 for new (after July 1, 1973) process emission sources.

6NYCRR 212 .4 (c)

This rule requires existing sources (in operation after July 1, 1973) of solid particulates with environmental rating of B or C which are not subject to Table 5 "Processes for which Permissible Emission Rate is Based on Process Weight, to be limited to an particulate emission rate not to exceed 0.05 grains per dry standard cubic foot.

6NYCRR 212 .6 (a)



New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263 Renewal Number: 1 Modification Number: 1 03/01/2006

This rule specifies an opacity limitation of less than 20% for any six consecutive minute period for all process emission sources.

Compliance Certification

Summary of monitoring activities at FERRO ELECTRONIC MATERIAL SYSTEMS:

Location Facility/EU/EP/Process/ES	Type of Monitoring	Cond No.
0-00002/00201	record keeping/maintenance procedures	18
0-00005/00503	record keeping/maintenance procedures	26
FACILITY	record keeping/maintenance procedures	4
FACILITY	record keeping/maintenance procedures	5
FACILITY	record keeping/maintenance procedures	6
FACILITY	record keeping/maintenance procedures	7
0-00002	record keeping/maintenance procedures	17
0-00002	record keeping/maintenance procedures	15
0-00002/00203/B03	record keeping/maintenance procedures	19
0-00003/00301	record keeping/maintenance procedures	20
0-00005/00501	record keeping/maintenance procedures	23
0-00005/00502	record keeping/maintenance procedures	24
0-00006	record keeping/maintenance procedures	27
0-00006	record keeping/maintenance procedures	28
0-00006/00625/F29	record keeping/maintenance procedures	31
0-00002	record keeping/maintenance procedures	1-16
0-00004	record keeping/maintenance procedures	21
0-00004/00401	record keeping/maintenance procedures	22
0-00005/00503	record keeping/maintenance procedures	25
0-00006	record keeping/maintenance procedures	29
0-00006/00625	record keeping/maintenance procedures	30
0-00008/00802/H02	record keeping/maintenance procedures	33
FACILITY	monitoring of process or control device parameters as surrogate	9

Basis for Monitoring

6NYCRR, Part 212:

Particulate matter is subject to the regulatory emission limits of 6NYCRR, Part 212.3(b) and 212.4(c) which are .15 and .05 grains/dscf respectively. Ferro utilizes fabric filter dust collectors, cyclones, and settling chambers in the control of particulate emissions at the facility. In order to demonstrate continuous compliance with 6NYCRR, Part 212, inspection and maintenance and recordkeeping procedures as described in Attachment B, C, D, and E have been established which consist of daily and periodic inspections.

In addition, potential hydrogen chloride emitted from emission point 625 in the amount of 107 pounds per hour requires a control efficiency of 94% as required by 6NYCRR, Part 212.4(a).

Compliance with the 6-minute average opacity limit of less than 20% established in 212.6(a) is accomplished by a daily facility emission point survey to observe and document visible emissions. If any visible emissions are identified, corrective action is required as per the attached maintenance procedures.

6NYCRR;Part 212.10

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-2930-00032/00263

Renewal Number: 1

Modification Number: 1



03/01/2006

Results from source tests conducted on the three electric arc furnaces demonstrated that actual nitrogen oxide(NOx) emissions are in excess of 100 tons per year and require compliance with the Reasonably Available Control Technology(RACT) requirements of 6NYCRR, Part 212.10. A RACT analysis was performed and submitted for the three single-phase electric arc furnaces and one small scale three-phase electric arc R & D furnace which has been removed since the issuance of the initial Title V, each described within emission unit 00002. Because there are no control options available, TAM requested a technical variance from the RACT requirements. Both this Department and the United States Environmental Protection Agency(USEPA) have conducted a review of the RACT analysis and found it to be acceptable. This permit incorporates a special condition for emission unit 00002 which limits actual NOx emissions from these four sources to 15.9#/hour per furnace and 210 tons per year total. Each furnace consists of a steel shell with a flat bottom and an inner shell which is constructed of carbon, therefore, there is no refractory maintenance requirement. The variance request was formally submitted to the USEPA as a source specific revision to the State Implementation Plan(SIP).