



State of Ohio Environmental Protection Agency

Northeast District Office

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Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director

September 13, 2007

RE: NOTICE OF VIOLATION,  
HIGH-PRIORITY FACILITY

CERTIFIED MAIL

Mr. Richard Hughes  
Environmental Superintendent  
Millennium Inorganic Chemicals  
P.O. Box 310  
Ashtabula, OH 44004

Certified Mail  
Notice of Violation, High-Priority Facility

Re: Division of Air Pollution Control Compliance Monitoring Inspection of Millennium  
Inorganic Chemicals - Plant 2 at 2426 Middle Road, Ashtabula, Ohio  
DAPC Facility ID # 02 04 01 0193

Dear Mr. Hughes:

On August 2, 6 & 17 of 2007, an inspection of the Plant 2 facility was conducted to determine compliance with the requirements of permits issued by the Division of Air Pollution Control (DAPC) and other applicable requirements. We appreciate the time given by you and Mr. Robert Schmude, Environmental Engineer. On September 11, 2007, additional copies of records, requested by Ohio EPA, were received by our office.

The purpose of this letter is to provide a follow-up to the inspection. Areas of non-compliance that need to be addressed include compliance method(s) with the visible particulate emissions (PE) requirements for titanium dioxide (TiO<sub>2</sub>) spray drier no. 2 (P013) and with the enclosure(s) to capture the fugitive PE generated at the coke and ore unloading, storage and handling operations (P903). Some additional information may be required as discussed below.

(B013 - B016) 65.1 mmBtu/hr (4.92 MW) natural gas-fired combustion turbine with a low NO<sub>x</sub> combustor control device & a 55.0 mmBtu/hr natural gas-fired duct heater/recovery boiler nos. 2-5;  
and (B017) 65.1 mmBtu/hr (4.92 MW) natural gas-fired combustion turbine with a low NO<sub>x</sub> combustor control device & a heat recovery steam generator no. 1

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An annual report of nitrogen oxide (NO<sub>x</sub>) and carbon monoxide (CO) emissions, in tons/year from the co-gen group (B013-B017) as required by Title V permit term A.IV.5., was not received for calendar years 2005 & 2006 by this office.

- 1) Please submit report for NO<sub>x</sub> and CO emissions from B013-B017, combined for the 2007 calendar year by April 15, 2008, to our Twinsburg, Ohio office.

It is our understanding that installation of the steam injection devices on each turbine associated with B013-B017 has not yet begun. This steam injection NO<sub>x</sub> emissions control technology has monitoring, record keeping, reporting and emissions testing requirements within the Permit-to-Install, PTI 02-13197, which was modified on December 14, 2006 and expires on June 14, 2008. These same requirements, regarding steam injection technology, are included in Permit-to-Install (PTI # 02-22027), which will be issued around September 11, 2007 and will expire around February 11, 2009. The terms of PTI 02-22027 will supercede the requirements of PTI 02-13197.

- 2) If needed, you may send a written request for up to a one-year extension of PTI 02-22027 to begin installation of steam injection equipment at any turbine, associated with B013-B017, to our Twinsburg, Ohio office before January 11, 2009.

B013-B017 does not have add-on air pollution control equipment and therefore, are not subject to the compliance assurance monitoring (CAM) rules.

(F001) Roadways & Parking Lots at TiO<sub>2</sub> Unit, and

(F002) Roadways & Parking Lots at TiCl<sub>4</sub> Unit

Our review of your records found compliance with the applicable monitoring and record keeping requirements.

(P001) Oxidation Process

Revised Ohio EPA estimates of the pre-controlled (uncontrolled) particulate emissions (PE) rate is 23.8 tons/year from the caustic scrubber (DA-847). Since the pre-controlled rate is less than 100 tons/year, P001 would not be subject to the compliance assurance monitoring (CAM) rule. The 7/02/07 application for a Title V permit renewal identified the CAM rule as an applicable rule.

(P002) Chlorination Process

The pre-controlled PE and sulfur dioxide (SO<sub>2</sub>) emissions rates may be greater than 100 tons/year each, but are difficult to estimate since there are several control devices at each of three control equipment trains. The 7/02/07 application for a Title V permit renewal identifies the CAM rule as an applicable rule. Please refer to the "CAM Rule" discussion below.

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(P011) Recovery of Ore and Coke (ROC) System

Revised Ohio EPA estimates of the pre-controlled (uncontrolled) PE rate from the vent dust collector (FG-332) and the absorber/separator (DA-330) are 395 tons/year, so that P011 could be subject to the compliance assurance monitoring (CAM) rule. The 7/02/07 application for a Title V permit renewal identified the CAM rule as an applicable rule. Please refer to the "CAM Rule" discussion below.

(P012) TiO<sub>2</sub> Spray Drier No. 1 and  
(P013) TiO<sub>2</sub> Spray Drier No. 2

Our review of your records for P012 & P013 found compliance with the applicable monitoring and record keeping requirements within the Title V Operating Permit.

We currently understand that (P013) TiO<sub>2</sub> Spray Drier No. 2 is also subject to the New Source Performance Standard for Calciners & Dryers in Mineral Industries, 40 CFR Part 60, Subpart UUU. A U.S. EPA Method 5 test conducted on June 21, 2004, indicated a particulate concentration of 0.0003 grains per dry standard cubic foot (dscf) of exhaust gases, which complies with the 0.025 grain PE/dscf standard. A 0% opacity was observed throughout six hours of exhaust gas sampling on June 21, 2004, as well as on August 17, 2007. Compliance with the 10% opacity limit for visible particulate emissions has been demonstrated. A daily visible emissions (VE) check, as required by term A.III.2. of the Title V Operating Permit, is performed. However, the daily VE check does not meet the monitoring requirements specified in 40 CFR 60.734(a) to install and maintain a continuous opacity monitor (COM) or in 40 CFR 60.734(b) to conduct and record Method 9 opacity readings by a certified visible emissions reader for a minimum of 18 minutes per day; thus, a violation occurs each day of operation.

An application to modify PTI 02-14024 to include the requirements of federal rule 40 CFR Part 60, Subpart UUU, was requested and received on October 12, 2005. It is our understanding that Millennium Inorganic Chemicals has had a discussion with U.S. EPA regarding the applicability of federal rule 40 CFR Part 60, Subpart UUU. At your request, we have put a temporary hold on processing the administrative modification of PTI 02-14024. Once a final determination has been made by U.S. EPA, the modification of PTI 02-14024 will be resumed or will be withdrawn, as appropriate.

- 3) If needed, an interim compliance plan will be requested until final compliance with 40 CFR Part 60, Subpart UUU, is achieved.

The 7/02/07 application for a Title V permit renewal identified the CAM rule as an applicable rule. None of the PE capture/control baghouses, associated with P012 and P013, would be subject to the CAM rule.

(P903) Coke & Ore Unloading, Storage & Handling

Fugitive emissions escaped from a ground level door of the total enclosure and were observed at 12:00, 12:20 & 12:55 on 8/02/07. Dust was also escaping from the bottom of the enclosure over silo #4 at 13:13 on 8/02/07. Part III, sections A.I.2.b. and A.I.2.c. of the Title V Permit require the implementation of total enclosures for all conveyor operations at all times.

- 4) Please prepare a written report that identifies the cause(s) of the fugitive emissions from the total enclosures, the corrective actions and any preventive measures taken, and send it to our Twinsburg, Ohio office.

The pre-controlled PE rate from baghouses (FG-701A & FG-701B) may be 135 tons/year, so that P903 could be subject to the CAM rule. The 7/02/07 application for a Title V permit renewal identified the CAM rule as an applicable rule. Please refer to the "CAM Rule" discussion below.

Compliance Assurance Monitoring (CAM) Rule - General Discussion

If the pre-controlled rate is 100 tons/yr or greater for a pollutant that uses a control device to comply with an emissions limit, a CAM plan for each affected emissions unit (P002, P011 and P903) must be submitted with the application for a renewal Title V Operating Permit or a reopening of the Title V Operating Permit.

- 5) Please tell us the date(s) of when you will submit written proposals for CAM plans for each air pollution control device, used to maintain compliance with an air pollutant emissions limit, associated with the Chlorination Process (P002), Recovery of Ore & Coke Process (P011) and Coke & Ore Unloading, Storage & Handling (P903). According to 40 Code of Federal Regulations (CFR) 64.3 the monitoring design criteria shall include the following:
  - a) General criteria – The monitoring design shall provide reasonable assurance with compliance with emissions limits or standards for the anticipated range of operations at the emissions unit.
    - i) One or more performance indicators for the control device and capture system shall be selected.
    - ii) Indicator ranges, that may use design information, historical data, similar sources or test data, shall be established.
  - b) Performance criteria
    - i) Data shall be representative of the emissions or monitored parameter, i.e. detector location and installation specification(s).

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- ii) Quality assurance and quality control practices to ensure continuing validity of the data shall be established.
  - iii) Monitoring frequency, data collection procedures and data averaging time(s) shall be established.
- 6) Please give us the address of the new owner, Crystal Corporation. (Reminder: The new owner information should also be included in any Starship documents, i.e. revised application for a renewal Title V permit, fee reports, etc.)

The receipt of the information, requested in item nos. 4 and 5 – 7, is requested by **October 16, 2007**. If you are unable to respond to any part of this request within the time frame(s) discussed above, please inform this Agency. Should you have any comments or questions about this correspondence, please do not hesitate to contact me at (330) 963-1205, or via e-mail at [christine.mcphee@epa.state.oh.us](mailto:christine.mcphee@epa.state.oh.us).

The submission of the requested information does not constitute a waiver of Ohio EPA's authority to seek civil penalties as provided in ORC 3704.06 or for U.S. EPA to seek civil penalties pursuant to federal law. Ohio EPA will decide whether to pursue or decline to pursue penalties regarding this matter at a later date.

Sincerely,



Christine McPhee  
Environmental Specialist  
Division of Air Pollution Control

CM:bo

enclosures

- cc: Bob Princic, Ohio EPA, NEDO, DAPC, w/out enclosures  
Tom Kalman, Enforcement Section, DAPC, Ohio EPA, CO, w/out enclosures  
Lisa Holsher, U.S. EPA, Region 5, w/out enclosures
- ec: Dennis Bush, Ohio EPA, NEDO, DAPC without enclosures  
Richard Hughes, Millennium Inorganic Chemicals, Inc. w/out enclosures  
Robert Schmude, Millennium Inorganic Chemicals, Inc. w/out enclosures