



**Environmental
Protection Agency**

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

March 28, 2011

RE: ASHTA CHEMICALS
OHIO EPA PERMIT 3IE00016
ASHTABULA TWP., ASHTABULA COUNTY
COMPLIANCE EVALUATION INSPECTION

Mr. John Reese, Vice President
ASHTA Chemicals
3509 Middle Road
Ashtabula, OH 44004

Dear Mr. Reese:

On March 22, 2011, a site inspection was conducted at the above referenced facility at 3509 Middle Road, Ashtabula Township, Ashtabula County. The inspection was conducted by John Schmidt and Virginia Wilson of this office. You represented ASHTA Chemicals (ASHTA) during the inspection. The purpose of the inspection was to evaluate the facility's compliance status with respect to the terms and conditions of the facility's National Pollutant Discharge Elimination System (NPDES) permit. The last compliance inspection was conducted on November 17, 2009.

ASHTA manufactures chlorine and caustic potash by the electrolytic mercury cell process, liquid potassium carbonate, hydrochloric acid, and chloropicrin. Chloropicrin is synthesized with nitromethane and potassium hypochlorite solution. Telone C-17 and C-35 is blended using Chloropicrin and Telone II (1,3, Dichloropropene) as raw materials. The facility employs approximately 100 employees and operates 24 hours per day, 7 days per week.

Industrial Waste Water treatment

Process contaminated water is collected inside the chlor-alkali, chloropicrin, and anhydrous potassium carbonate plants. Wastewaters are collected through a series of drains and sumps and are directed to the facility's process water recovery system (PWRS) for treatment. The treated wastewaters are recycled to the chlor-alkali facilities. THE PWRS consists of a collection sump, surge tank, 100,000 gallon clarifier, two 160,000 gallon storage tanks, pretreatment system consisting of chemical additional and filtration, reverse osmosis (RO) membrane filtration, and three 20,000 gallon holding tanks for storage of RO concentrate and diverted highly contaminated process waste streams.

Process wastewater from the chlor-alkali and anhydrous potassium carbonate plants are routed through the Building 01 East water sump. Pumped water receives pH adjustment in the surge tank, and then flows to the clarifier for solids removal. Treated water is stored in one of two 160,000 gallon storage tanks. The pretreatment system consists of pH adjustment (acid or lime as appropriate) and chlorine removal. pH

Mr. John Reese
ASHTA Chemicals
March 28, 2011
Page 2

adjusted water then flows to the RO unit for further treatment. RO primary concentrate and permeate is recycled back to the chlor-alkali brine process. Solids collected from the clarifier are dewatered on a plate frame press with solids placed into a sealed roll off dumpster labeled K106 for disposal at a hazardous waste treatment/storage/disposal (TSD) facility. Liquids are routed back to Building East water sump.

The Telone blending process collects any spills or leaks via collection pans that are piped to a stand-alone sump. Storm water from the Telone blending area is directed to the PPWRS system as described above. A process flow diagram for these processes is attached.

Storm Water Management

Storm water management includes water from building footer drains and runoff from paved and unpaved areas of the facility. Storm water is collected and discharged to ditches around the perimeter of the facility and is discharged through one of two outfalls. Additionally, there are two outfalls that have ceased discharging due to storm water recycling and elimination of these outfalls. One outfall has been eliminated altogether (Outfall 004), with the remaining outfall (Outfall 001) is used in the rare event that storm water volumes exceed the holding capacity of storage tanks in the storm water recycling system.

Outfall 001

Prior to August 1996, Outfall 001 discharged treated process wastewater, storm water, and non-contact cooling water. After August 1996, the PWRS system was installed and the treated process wastewater is now recycled. Storm water from the process areas is collected in a 1.2 million gallon storm water storage tank located at the north end of the property which is also sent through the treatment system. However, Outfall 001 is designed to overflow if storm water from the process areas is in excess of the holding capacity of the storm water sump and holding tank. As storm water runoff has the potential to contain spills and releases from process areas, loading, and unloading areas, as well as legacy mercury deposition areas, a valve must be manually activated to release water from Outfall 001, and per the SWPPP, requires written approval from the Operations Manager or Duty Manager. Outfall 001 is required to be monitored for pH, total suspended solids, zinc, copper, chlorine, mercury, trichloronitromethane, overflow occurrence, and overflow volume.

Outfall 002

Outfall 002 receives storm water from non-process areas on the southwest side of the ASHTA property, ASHTA administration building, a portion of the ASHTA welcome center parking lot, and associated parking areas. The drainage area encompasses approximately 20.7 acres. Collected storm water flows south, then west along an underground tile through the ESAB property. In June 2000, a valve was installed just north of the driveway to the nitromethane storage building to block water flow to Outfall

002. Storm water runoff has the potential to contain spills and releases from rail loading and unloading areas, specifically potassium hydroxide, potassium carbonate, and chlorine rail cars, as well as legacy mercury deposition areas. A valve must also be manually activated to release water from Outfall 002, and, per the SWPPP, requires written approval from the Operations Manager or Duty Manager. Sampling is conducted to verify contaminant concentrations prior to release. Outfall 002 is required to be monitored for pH, total suspended solids, mercury, overflow occurrence, and overflow volume.

Outfall 003

Outfall 003 receives storm water from non-process areas on the southeast side of the ASHTA property, including the anhydrous potassium carbonate plant, the ASHTA visitor's welcome center, a portion of the visitor parking lot, rail staging areas, and the cleared areas east of the manufacturing complex and west of the lagoon. The drainage area encompasses approximately 3.8 acres. Collected storm water flows south, then through a series of sedimentation ponds prior to discharge to the north ditch along Middle road. Storm water runoff has the potential to contain spills and releases from truck and rail loading and unloading areas, as well as legacy mercury deposition areas. Outfall 003 is required to be monitored for pH, total suspended solids, mercury, overflow occurrence, and overflow volume.

Outfall 004 (Eliminated)

Former Outfall 004 received storm water from the west and north side of a capped lagoon on the east side of the property away from process areas. Storm water runoff has the potential to contain legacy mercury deposition areas as well as seeps or outbreaks in the lagoon cap system. Prior to 2003, Outfall 004 received storm water runoff from the easternmost railroad tracks. In October 2009, this drainage area was re-routed to a 250,000 gallon open basin and sent into the PWRS for recycling. The former connection to Outfall 004, a channel, was filled in and the outfall eliminated. Prior to its elimination, Outfall 004 was also required to be monitored for pH, total suspended solids, mercury, overflow occurrence, and overflow volume.

Plant Sanitary Waste Water Treatment:

Plant sanitary wastes are conveyed to Elkem Metals sanitary wastewater plant located north/ northwest of the ASHTA facility for treatment and are not a part of this NPDES permit.

Observations

The following observations were made during the inspection.

1. ASHTA was under the misconception that Consent Order 2002-CV-982, as amended by the 2007 Consent Order modifications requiring quarterly monitoring for mercury only, was to be followed in lieu of the parameters and frequencies

Mr. John Reese
ASHTA Chemicals
March 28, 2011
Page 4

specified in its NPDES permit for Outfalls 001, 002, 003, and 004. The monitoring requirements of the NPDES permit are in addition to the requirements of the consent order, and you were advised of this in the 2009 CEI issued on December 14, 2009.

2. The general operation and maintenance of the industrial wastewater treatment system appeared to be satisfactory.
3. Outside roll-off boxes were observed as tarped.
4. Outfall 003 was observed as flowing at the time of the inspection.
5. The valve at Outfall 002 was shut off, with water impounded and manually pumped to a swale that flows to the forebay and sedimentation pond that are tributary to Outfall 003.
6. Outfall 001 was observed as not discharging at the time of the inspection, with a weir located in an inspection vault. Waters from this area are pumped to the 200,000 gallon storm water holding tank, then to the 1.3 million gallon storage tank for the PWRS system.
7. The design flow of the chemical wastewater treatment plant (PWRS) is approximately 82 gpm, with a peak flow of about 85 gpm. As this process wastewater is recycled back into ASHTA processes, there is no outfall associated with the process unless there is a break in a process line.
8. A number of improvements were made to the system since the last inspection, including construction of the sedimentation basin associated with Outfall 003 to the east of the manufacturing complex. Improvements for Outfall 002 had been completed in 2009.
9. A log book of repairs, inspections, and observations is maintained at the facility. You and Robert Beagle perform routine operations at the plant, monitor the facility, and perform the sampling. June Ruth prepares the electronic discharge monitoring report (eDMR) and you submit of the eDMR through Ohio EPA's Web-based application.
10. The recently constructed sedimentation basin was observed in good working order, with a small amount of scum. The basin is scheduled for cleanout when the capacity falls below those specified in the Storm Water Pollution Prevention Plan (SWPPP).

Mr. John Reese
ASHTA Chemicals
March 28, 2011
Page 5

11. The storm water pollution prevention plan (SWPPP) was updated on August 2010 with revisions through March 2011. Now that the latest revisions to the SWPPP have been completed, the annual site certification inspection and employee training are scheduled soon.
12. Outfalls 001 and 002 were not noted as discharging at the time of the inspection.
13. No evidence of discharges was noted from the roll-off box storage area.

NPDES Permit Compliance Review

ASHTA Chemicals operates under Permit 3IE00016*KD. A review of the electronic discharge self-monitoring reports (eDMRs) received by Ohio EPA for the period November 1, 2009 through March 1, 2011 indicates apparent noncompliance of the terms and conditions of your NPDES permit as identified below:

Limit Violations

No limit violations were noted for the period reviewed. It is noted that, other than quarterly reporting for mercury pursuant to your consent order, the value "AL" for no flow has been reported in the eDMR for the monitoring period. If flow occurred at any of the outfalls during the reporting period, ASHTA was required by its NPDES permit to sample and report data for the parameters at each outfall as specified in its NPDES permit. Discussions with ASHTA indicated that ASHTA had assumed they were only required to report mercury on a quarterly basis as specified by their consent order. ASHTA commenced sampling at each storm event pursuant to their NPDES permit on March 2, 2011. From the data submitted to the eDMR, Ohio EPA cannot ascertain if a limit violation occurred prior to March 2, 2011.

ASHTA has provided their explanation for the missing data prior to March 2, 2011; therefore no additional response is needed at this time.

Reporting Violations

Regarding reporting frequency violations, Ohio EPA identifies that only quarterly average mercury monitoring is reported and that remaining parameters were reported with reporting code "AL" for no flow which is inaccurate. Your NPDES permit requires ASHTA to report data for specific parameters when the outfall is discharging for the following parameters as prescribed by your NPDES permit. The only exception is that mercury needs to be monitored quarterly as prescribed by the Consent Order:

- Outfall 001: pH, total suspended solids, zinc, copper, chlorine, mercury, trichloronitromethane, overflow occurrence (number per month) and overflow volume
- Outfall 002: pH, total suspended solids, mercury, overflow occurrence (number per month) and overflow volume

Mr. John Reese
ASHTA Chemicals
March 28, 2011
Page 6

- Outfall 003: pH, total suspended solids, mercury, overflow occurrence (number per month) and overflow volume
- Outfall 004: pH, total suspended solids, mercury, overflow occurrence (number per month) and overflow volume – if this outfall has been eliminated – report “no flow”.

For months when mercury data was collected, only a single data was provided. If flow occurred on multiple days, then multiple days of reporting should have been provided. A written explanation as to why this data was not collected, along with measures to ensure that data is collected pursuant to the terms and conditions of your NPDES permit was not submitted. Discussions with ASHTA indicated that ASHTA had assumed they were only required to report mercury on a quarterly basis as a specified by their consent order. ASHTA commenced sampling at each storm event pursuant to their NPDES permit on March 2, 2011. From the data submitted to the eDMR, Ohio EPA cannot ascertain if a limit violation occurred prior to March 2, 2011.

ASHTA has provided their explanation for the missing data prior to March 2, 2011; therefore no additional response if needed at this time.

Regarding reporting code violations, Ohio EPA notes the following:

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
002	50092	Mercury, Total, Low Level			AJ	12/31/2010

Please provide a written explanation for the apparent violation, including steps to be implemented to ensure that it is not repeated.

In a letter dated January 20, 2011, ASHTA notified Ohio EPA of a discharge of approximately 50,000 gallons of industrial process water containing a concentration of approximately 21,000 ppt (ng/l) of mercury resulting in a recorded concentration of 4,429 ng/l (ppt) mercury. Pursuant to Part II, Item H, unauthorized discharges are to be reported immediately.

Please provide Ohio EPA with any information of any other contaminants of concern associated with this release and any other analytical data associated with this event, including the locations of any samples taken. Other than repairing the source of the release and diverting flows to the PWRS, it is unclear to Ohio EPA if soils and sediments have been evaluated for mercury from this release incident and if found contaminated, removed for off-site treatment.

Compliance Schedule Violations

The current permit does not contain a compliance schedule.

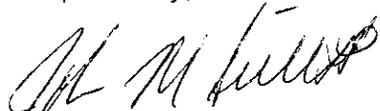
Mr. John Reese
ASHTA Chemicals
March 28, 2011
Page 7

Based on the above information, ASHTA Chemicals is considered to be in marginal compliance with the terms and conditions of the NPDES permit for its Ashtabula facility. Ohio EPA notes that prior to March 20, 2011, ASHTA was considered in noncompliance with the terms of its NPDES permit. The above items must be addressed.

Please inform this office, in writing, within 30 days of the date of this letter as to the actions we discussed that have been or will be taken to correct the above noncompliance or explanations if you believe the noncompliance issues noted are in error. Your response to this letter should include the dates that the actions have been or will be completed. Please be advised that past or present issues of noncompliance can continue as subjects of future enforcement actions by Ohio EPA.

If you have any questions or comments regarding this inspection, please feel free to contact me at (330) 963-1175.

Respectively,



John M. Schmidt P.E., R.S.
Environmental Engineer
Division of Surface Water

JMS/mt

pc: Susan Watkins, Ohio EPA, NEDO, DERR
Bill Fischbein, Ohio EPA, CO, Legal

File: Industrial – ASHTA Chemicals/pc

