Ohio EPA
40 years and moving forward

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

June 10, 2013

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

Mr. Richard Jackson, Vice President of Operations
ASHTA Chemicals
3509 Middle Road
Ashtabula, OH 44004

Dear Mr. Jackson:

On June 3, 2013, 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 of this office. Mr. Ron Williams, and Ms. Jackie Paoililo represented ASHTA Chemicals (ASHTA) during the inspection. Following the inspection, we spoke with you. 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 April 26, 2012.

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, 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 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 PWRS system as described above.

No changes to the processes from the 2012 inspection are noted, other than site preparation for a new cooling tower and hydrochloric acid plant. A process flow diagram for these processes is attached. ASHTA has advised Ohio EPA that the chlor-alkali process will be replaced with a new process as a part of the NPDES permit renewal that will result in an industrial process wastewater discharge. These changes are not discussed here as they have not been implemented yet.

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 EMC Metals (formerly Elkem Metals) sanitary wastewater plant located north/ northwest of the ASHTA facility for treatment and are not a part of this NPDES permit. Over the past year, Ohio EPA and ASHTA have discussed various options for treating its sanitary waste.

Observations
The following observations were made during the inspection:

1. ASHTA is preparing the site for the construction of a new cooling tower and hydrochloric acid plant. Contact with Ohio EPA indicated that no permit-to-install (PTI) from Ohio EPA, DSW, or NPDES permit modification was needed. No additional changes to industrial processes have been noted since the last inspection.

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 No. 003 was observed as flowing at the time of the inspection. The discharge was noted as clear and of acceptable visual quality.

5. Outfall 002 was observed, but not flowing at the time of the inspection. The ditch behind the outfall is full, and will need to be tested and discharged soon.

6. Outfall 001 was observed as not discharging at the time of the inspection, with a weir located in an inspection vault. The water level behind the weir was noted as near empty. 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 80 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 log book of repairs, inspections, and observations is maintained at the facility. Ron Williams and Jackie Paoililo perform routine operations at the plant, monitor the facility, and Robert Beagle performs the sampling. June Ruth prepares the electronic discharge monitoring report (eDMR). Prior to June 2013, John Reese submitted the eDMR through Ohio EPA's Web-based application. Commencing with the June 2013 report, Ron Williams or Jackie Paoililo will submit the eDMR through Ohio EPA's Web-based application.

9. The sedimentation basin was observed in good working order. The basin is scheduled for cleanout when the capacity falls below those specified in the Storm Water Pollution Prevention Plan (SWPPP). The basin is checked every July-August to verify pond capacity. The sedimentation basin has not yet been cleaned.

10. The SWPPP was updated on October 25, 2012. The annual site inspection was conducted on August 21, 2012, and the annual certification was conducted on October 25, 2012. Employee training was conducted between December 5, 2012 and December 27, 2012. It is noted that with the retirement of John Reese that the SWPPP will need to be revised to reflect personnel changes responsible for implementing the SWPPP.

11. No evidence of discharges was noted from the roll-off box storage area.

NPDES Permit Compliance Review

A review of the electronic discharge self-monitoring reports (eDMRs) received by Ohio EPA for the period March 1, 2012 through May 1, 2013 indicates apparent noncompliance of the terms and conditions of your NPDES permit as identified below:

Limit Violations

The following effluent limit violations are noted for the time period reviewed:

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	00400	pH	1D Conc	9.0	9.1	10/30/2012
001	00400	pH	1D Conc	9.0	9.3	10/31/2012
001	00400	pH	1D Conc	9.0	9.2	11/2/2012
001	00400	pH	1D Conc	9.0	9.2	11/3/2012

Part III, Item 12 of your NPDES permit requires you to notify Ohio EPA of any violations, along with measures taken to ensure that they are not repeated within 24-hours of discovery. A fact sheet on this requirement may be found online at http://epa.ohio.gov/portals/35/permits/24-hour_Report_FactSheet.pdf. Noncompliance notification forms may be found online at http://epa.ohio.gov/dsw/permits/individuals.aspx. ASHTA provided an explanation for these violations, along with measures to ensure that it is not repeated, on November 20, 2012. Therefore, no additional information is needed to respond to the violations.

Reporting Violations
No reporting frequency or reporting frequency violations were noted during the reporting period.

Compliance Schedule Violations
The current permit does not contain a compliance schedule.

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

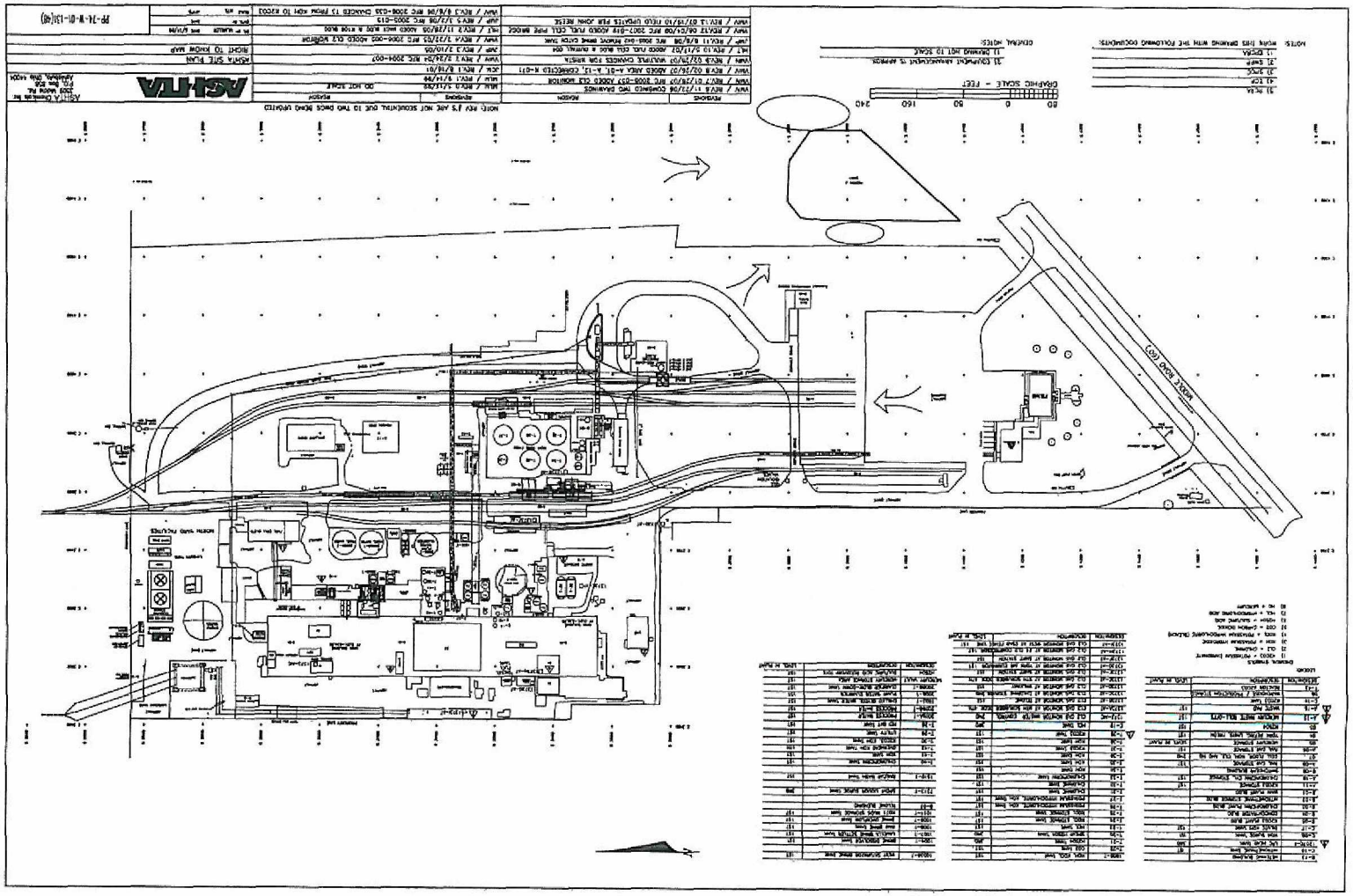
Respectively,

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

JMS/cs

cc: Jackie Paoilillo, ASHTA Chemicals

File/Industrial – ASHTA Chemicals/pc


ASHTA
MIDDLE ROAD (CR7)
GRAPHIC SCALE - FEET
80 0 80 160 240
NOTE: REV 7,8 ARE NOT SEQUENTIAL DUE TO TWO DWGS REMO UPDATED
REVISIONS
REVISION
REVISED
APPROVED
ASHTA Chemicals Inc.
3509 Middle Rd.
P.O. Box 808
Ashtabula, Ohio 44004
ASHTA SITE PLAN
RIGHT TO KNOW MAP
RP-14-W-01-13(49)