



**Environmental
Protection Agency**

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

August 14, 2012

RE: EMC ASHTABULA LP
(FORMER ELKEM METALS ASHTABULA)
NPDES PERMIT NO. 3IN00036
ASHTABULA TWP, ASHTABULA COUNTY
COMPLIANCE EVALUATION INSPECTION

NOTICE OF VIOLATION

CERTIFIED MAIL

Mr. David Renfrew, Vice President
EMC Metals Company – Ashtabula LP
P.O. Box 266
Pittsburgh, PA 15230-0266

Dear Mr. Renfrew:

On June 14, 2012, a site inspection was conducted at the above referenced facility at 2700 Lake Road East (State Route 531), Ashtabula Township, Ashtabula County. The inspection was conducted by John Schmidt of Ohio EPA's Division of Surface Water (DSW). You represented EMC Metals Inc. / EMC Ashtabula LP (EMC), formerly Elkem Metals Company – Ashtabula LP (Elkem). 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 and to follow up on an inspection conducted in April 2011. The last compliance inspections were conducted on April 21, 2011, April 28, 2011, and September 7, 2011.

The system consists of a sanitary treatment system (EMC Sanitary WWTP) and an industrial treatment system (EMC Industrial WWTP). Calcium carbide stored in Building C1P is currently being staged outdoors awaiting shipment to Carbide Industries of Calvert City, TN via railcar. The staging area is incorporated into the revised storm water pollution prevention plan (SWPPP). In the fall of 2011, EMC commenced dewatering Pond 5C in preparation for its closure. Another process change is that flow from Pond 4C was blocked off until EMC received authorization for a process change to treat cyanide wastes. No other process changes in treatment are noted from the 2011 inspections; hence they will not be repeated here. A figure provided by EMC is included for reference. Of note is that the NPDES permit was transferred from Elkem Metals Company – Ashtabula LP to EMC Ashtabula, LP. The request was made on December 22, 2011. The NPDES transfer was made and became effective on April 1, 2012.

As discussed above, dewatering of Pond 5C has commenced. A process change being requested by EMC is that in May 2012 Pond 5C was discovered to have elevated levels of cyanide while dewatering the pond. Instead of being allowed to discharge, the outfall of Pond 4D upstream of Pond 5C was sealed off and Pond 4C is acting as an impoundment with no discharge. EMC proposes to treat the wastewater with chlorine to remove the cyanide and add acid to adjust the pH - operations that were permitted when the plant processed calcium carbide. Per our discussions, EMC will submit a letter to Ohio EPA outlining the specific treatment and duration of treatment. **To-date, Ohio EPA has not received this process change request.**

Observations

Following are observations and notations made during the inspection:

Elkem Sanitary wastewater treatment plant (WWTP)

1. The sanitary WWTP, rated at 50,000 gallons per day, is currently accepting about 10,000 gallons per day. The drop in flow is attributed to ESAB winding down operations at their Ashtabula facility. The wastewater plant also receives domestic sanitary flow from the adjacent USALCO, Praxair, ESAB, and ASHTA facilities on a daily basis.
2. Although the EMC (Elkem) facility is now used primarily for warehousing, Frontier remains as a tenant that currently is dismantling and recycling light rail cars at the property.
3. The plant is operated by Michael Mearini on behalf of EMC, with assistance provided by Wayne Linn and Dave Renfrew. Mr. Mearini assumed duties as Operator of Record (ORC) on April 20, 2011. Mr. Mearini inspects the facility three times weekly.
4. Log books, a copy of NPDES permit, a copy of the ORC contract, and operation/maintenance manual are maintained at the site and were available for inspection. The inspection and observation sheets of the sanitary treatment system should be maintained in a bound book instead of loose-leaf sheets. The log book was compliant with OAC 3745-7-09.
5. The south Imhoff tank receives flow from ESAB, ASHTA, Praxair, and USALCO. The tank was noted as full of duckweed. Some vegetation was also noted in the tank that needs to be removed. The north Imhoff tank receives flow from EMC only. This tank has a larger accumulation of vegetation that needs to be removed.
6. Sludge is removed from the Imhoff tanks by gravity lines to sludge drying beds. Sludge is removed from the sludge drying beds for disposal at a licensed solid waste disposal facility. Sludge was removed from the beds on June 11, 2011 and is currently stockpiled adjacent to the 4-series sedimentation ponds. As this is not an authorized location to stockpile sludge per your NPDES permit, this is considered open dumping under Ohio Revised Code (ORC) 3734. Per your NPDES permit, this sludge must be removed and taken to a solid waste disposal facility.
7. The trickling filter was observed to be free of vegetation; however, only two of the four spay arms are functional. All arms of the trickling filter must be made functional.
8. The pump from the trickling filter to the chlorine contact tank was not functioning properly. This must be immediately investigated and repaired. A second pump must be provided in the pit or a spare pump maintained at the site for immediate replacement.
9. The chlorination system mixing pump remains inoperable. Chlorine is added to the tank to provide disinfection. Sulfur dioxide is added to the outlet of the tank to provide de-chlorination. Post-disinfection aeration is also inoperable. Mr. Renfrew indicated that the chlorine mixing system and post-disinfection equipment have not been operational in the 13 years he has overseen this facility.

10. Due to the inoperable chlorine contact influent pump, the final effluent at Outfall 601 between the Elkem WWTP and the final outfall (Outfall 002) could not be observed. The EMC final discharge at the Ashtabula Power Plant (Outfall 002) was submerged at the outlet to Lake Erie as observed on May 17, 2012. Outfall 601 (EMC Sanitary WWTP) was observed to be producing an effluent of acceptable visual quality.
11. Samples are collected by Mr. Linn, Mr. Renfrew, and Mr. Mearini, who perform on-site analysis of pH, chlorine residual, as well as observations of flow, color, odor, and turbidity. Mr. Linn inputs data into the eDMR system on behalf of EMC, with the pinning of the reports done by Mr. Renfrew.

Elkem Industrial WWTP

12. The pump at the Russell Road Ditch pump house was observed in operating condition with one pump in the station. Mr. Renfrew indicated that a second pump is maintained at the facility to replace the operating pump in the event of a pump failure. The pump station appears to be operating as designed. The pump station serves a drainage area of approximately 100 acres of the EMC property.
13. Two overflow pipes had been constructed through the berm at the pump house intake to allow wastewater to bypass Ponds 5A, 4A, 4B, 4C, and 4D for discharge directly to Lake Erie. As indicated during the April 2011 inspection, this bypass has apparently been in place at the EMC facility for at least the past 13 years. The bypass was observed as not discharging.
14. The ponds used for settling the industrial wastewater (Ponds 4A, 4B, 4C, 4D, and 5A) appeared in acceptable condition. A former industrial process discharge line to the Pond 5C from No. 4 pump station has been removed as the pump station is no longer in operation. Pond 4D is acting as an impoundment with no discharge.
15. Some of the equipment in the post-settling pH adjustment building was not operational and had been destroyed or removed. None of the equipment in the pre-settling pH adjustment building (Building 163) appears operational, with some equipment destroyed or removed.

Storm Water Management

16. The SWPPP was available for inspection. The plan was last revised on January 19, 2012, and is planned to be revised again with the pending NPDES modification. The annual inspection was completed in December 2011, and the annual certification was conducted on January 19, 2012.
17. EMC could not produce any records of any employee training on the SWPPP, and acknowledged that training has not been performed on the new plan. This training must be scheduled as soon as possible and must include members of both EMC and Frontier.
18. During the site visit, Ohio EPA and EMC noted that there are several piles of materials from both the demolition operations of the former EMC manufacturing operations as well as demolition of outlet structures from the ponds and a mobile home/office. The SWPPP document must reflect treatment of waters in contact with materials other than simply passing through a series of settling ponds.

NPDES Permit Compliance Review

A review of the electronic discharge self-monitoring reports (eDMRs) received by Ohio EPA for the period August 1, 2011 through May 1, 2012 indicates apparent noncompliance of the terms and conditions of your NPDES permit. Specific instances of noncompliance are as follows:

Limit Violations

The following limit violations were noted for the period reviewed:

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
601	00530	Total Suspended Solids	30D Conc	30	64.75	8/1/2011
601	00530	Total Suspended Solids	30D Qty	5.68	7.35236	8/1/2011
601	00530	Total Suspended Solids	1D Conc	45	236.	8/25/2011
601	00530	Total Suspended Solids	1D Qty	8.52	26.7978	8/25/2011
001	00530	Total Suspended Solids	30D Conc	3.2	4.25	9/1/2011
001	50092	Mercury, Total (Low Level)	30D Conc	1.3	35.1	9/1/2011
001	00530	Total Suspended Solids	30D Conc	3.2	4.	11/1/2011
001	00530	Total Suspended Solids	1D Conc	7	9.	11/10/2011
001	00530	Total Suspended Solids	30D Conc	3.2	5.33333	12/1/2011
001	50092	Mercury, Total (Low Level)	30D Conc	1.3	23.7	12/1/2011
001	50092	Mercury, Total (Low Level)	30D Conc	1.3	19.5	1/1/2012
001	00530	Total Suspended Solids	30D Conc	3.2	4.875	2/1/2012
001	50092	Mercury, Total (Low Level)	30D Conc	1.3	11.7	2/1/2012
001	00530	Total Suspended Solids	1D Conc	7	8.	2/2/2012
001	50092	Mercury, Total (Low Level)	30D Conc	1.3	4.66	3/1/2012
001	50092	Mercury, Total (Low Level)	30D Conc	1.3	8.31	4/1/2012

Based upon the above information, EMC continues in **significant noncompliance** for both mercury and total suspended solids (TSS). EMC responded to the August 2011, September 2011, November 2011, December 2011, January 2012, February 2012, March 2012, and April 2012 violations with written responses dated September 7, 2011, September 30, 2011, November 1, 2011, February 8, 2012, March 14, 2012, April 3, 2012, April 5, 2012, and May 2, 2012.

The noncompliance of TSS, both daily and monthly, has been attributed to a low flow through a very shallow discharge ditch, with water picking up seeds and leaves from the flowers and weeds growing along the ditch, but the flow is not enough to disperse them and they end up in the sample. EMC should consider the installation of a boom immediately upstream of the sample location and keep vegetation trimmed in vicinity of the sampling location to control floating debris. EMC must immediately make necessary changes to its monitoring station to control TSS. Mercury, even from offsite sources, requires EMC to submit a mercury variance application and a pollutant minimization plan. EMC must locate the source of mercury. EMC indicated that they have retained the services of a consultant who is preparing the mercury variance application. **Frequency violations continue to occur monthly. EMC must take appropriate measures to ensure that these violations do not continue and submit a mercury variance application, along with an NPDES permit modification request.**

Reporting Violations

No reporting code or reporting frequency violations were noted for the time period reviewed.

Compliance Schedule Violations

The following compliance schedule violations were noted for the period reviewed.

Permit Effective Date	Permit Expiration Date	Schedule Due Date	Completion Date	Event Code	Schedule Type	Schedule Milestone
6/1/2006	5/31/2013	6/1/2009	Not Complete	95999	Other	E Coli Status Report
6/1/2006	5/31/2013	6/1/2007	Not Complete	None	Other	E.Coli Status Report
6/1/2006	5/31/2013	9/1/2007	Not Applicable	None	Other	E Coli PTI if needed
6/1/2006	5/31/2013	4/1/2009	04/01/2009	05699	Other	E Coli Compliance
7/1/2012	5/31/2013	10/1/2012	Not Complete	None	Other	Hg Compliance Letter
7/1/2012	5/31/2013	10/1/2012	Not Complete	None	Other	Hg NPDES Mod if need
7/1/2012	5/31/2013	10/1/2012	Not Complete	None	Other	Apply Hg Variance
7/1/2012	5/31/2013	12/31/2013	Not Complete	None	Construction	Closure of Pond 5C
7/1/2012	5/31/2013	12/31/2014	Not Complete	None	Construction	Closure of Ponds 1,2
7/1/2012	5/31/2013	12/31/2014	Not Complete	None	Construction	Closure of 4A-B-C-D,1A
7/1/2012	5/31/2013	30 d prior	Not Complete	None	Construction	Leachate Mgmt Plan
7/1/2012	5/31/2013	Quarterly	Not Complete	None	Construction	Closure Status Report

Ohio EPA understands that EMC evaluated the E Coli data gathered in 2008, but did not submit a status report to Ohio EPA. A status report is forthcoming. Given the time that has elapsed since these milestones were due, EMC remains in **significant noncompliance** with its previous NPDES permit for the E Coli milestones. Ohio EPA could not locate any record of submission of these status reports or NPDES modifications pursuant to your NPDES permit. EMC acknowledged that they did not send an E Coli status report in 2009 although they did evaluate the E coli and the evaluation did not warrant submitting a PTI for any disinfection improvements. EMC also acknowledged that they are aware of the NPDES modification requirements and mercury variance request, which is currently under preparation. **Please provide these status reports to Ohio EPA Northeast District as soon as possible.**

Comments

Ohio EPA offers the following comments:

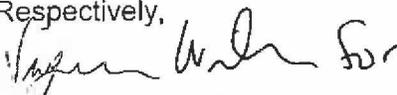
1. **Cessation of Regulated Operations:** Process areas no longer used and not a part of the treatment system in the Industrial WWTP (pH adjustment areas) must have the systems decommissioned. All pH adjustment process equipment, tanks and their contents should be inventoried and removed for appropriate offsite disposal. These areas are subject to Ohio EPA's Cessation of Regulated Operations (CRO) program, as notified by Ohio EPA in August, 2006 and again in April 2010. EMC should confirm its CRFO status with Frank Popotnik of Ohio EPA's CRO program at 330-963-1198. **Ohio EPA will expect that the process areas of the EMC Industrial WWTP no longer being used to be decommissioned, inventoried, and removed for appropriate offsite disposal.**
2. **Construction of Pump Station to replace Elkem Sanitary WWTP and Elkem Industrial WWTP:** During the 2011 inspections, EMC disclosed that it has contracted with William Boyle Engineering to prepare a PTI application to construct a pump station to replace the EMC Sanitary WWTP and to tie under drains from Ponds 3 and 3a into this system. Please provide Ohio EPA a schedule as to when we can expect this PTI. EMC must also apply for a mercury variance and include a pollutant minimization plan to address treatment of storm water containing mercury. **EMC must provide a schedule for either a PTI for the pump station to replace the sanitary WWTP or a schedule to make improvements to the sanitary WWTP.**

3. Chlorine and Sulfur Dioxide Storage and Use: Ohio EPA notes that both chlorine dioxide and chlorine continue to be stored and used in the same building. Liquid chlorine is being used, but the self-contained breathing apparatus (SCBA) station is empty. These may be in violation of Occupational Safety and Health Administration (OSHA) rules. You and your operator should evaluate the safety of your current disinfection and dechlorination chemical usage and storage practices.
4. Closure Plan for Ponds 1, 1A, 2, 4A, 4B, 4C, 4D, and 5C: EMC is advised that the milestones referenced in the closure plan and NPDES permit must be followed, and that once dewatering activities commence, leachate from Ponds 3 and 3A must be collected in portable storage tanks for off-site disposal at a licensed publically-owned treatment works unless other authorization is obtained.

Please be advised that failure to comply with effluent limits and compliance schedule in your NPDES permit, failure to adequately operate and maintain your wastewater treatment plant, and failure to update your SWPPP is each cause for an enforcement action pursuant to chapter 6111 of the ORC. Based on the above information, Elkem is considered to be in significant noncompliance with the terms and conditions of the NPDES permit and, therefore, subject to enforcement actions pursuant to Chapter 6111 of the ORC. Such actions can result in fines of up to \$10,000 per day of violation.

You must inform this office, in writing, by July 15, 2012 as to the actions that have been or will be taken to correct the above violations. Your response 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 Ohio EPA does not hear from you, in writing, by July 15, 2012, the Ohio EPA Northeast District Office will refer this matter for enforcement.

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: Frank Popotnik, Ohio EPA, DHWM, NEDO
Michael Mearini, Supt, Ashtabula City WWTP
Colum McKenna, Ohio EPA, DSWIM, NEDO
Bill Fishbein, Ohio EPA, Legal, CO

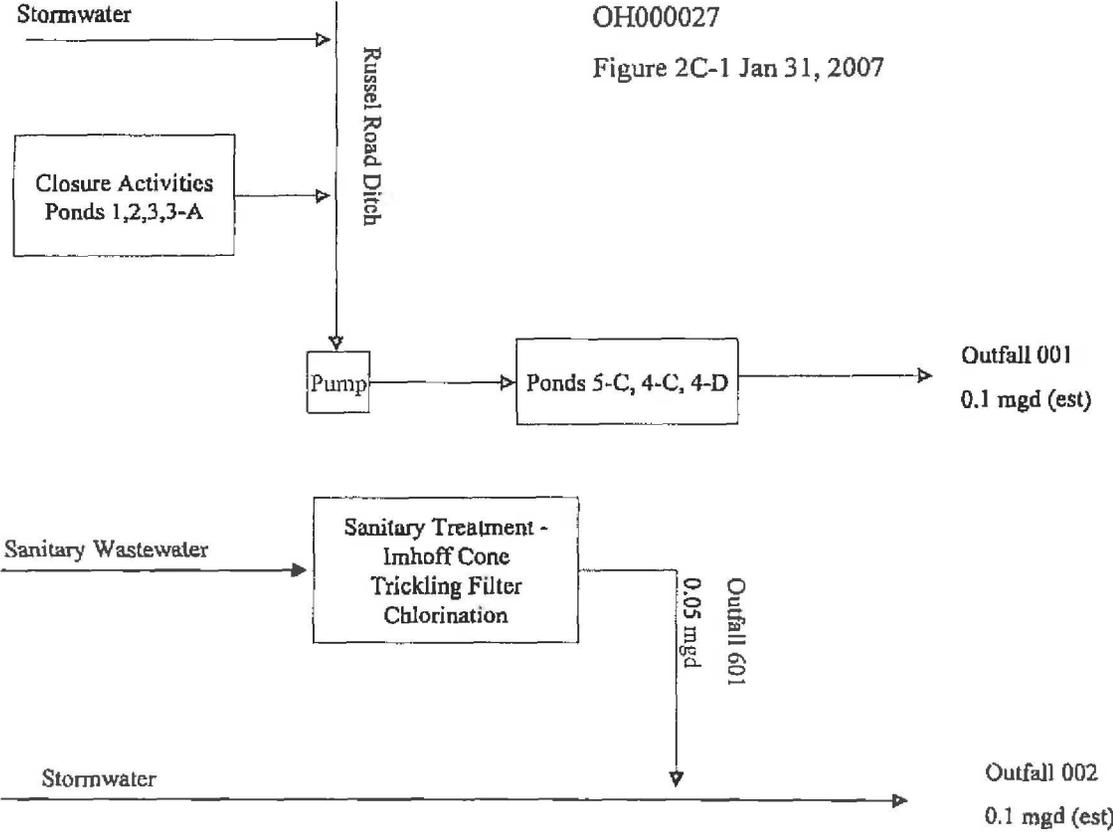
ec: Ted Conlin, Ohio EPA, DSW, NEDO
Scott Winkler, Ohio EPA, DSW, NEDO

Attachments: Process flow Diagram, Permit 31B00012 from Permit Application

Elkem Metals Company - Ashtabula LP

OH000027

Figure 2C-1 Jan 31, 2007



7010 3090 0000 3937 8545

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark
Here

Sent To

Street, Apt. No.,
or PO Box No.

City, State, ZIP+4

PS Form 3800, August 2006

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. David Renfrew, Vice President
EMC Metals Company - Ashtabula LP
P.O. Box 266
Pittsburgh, PA 15230-0266

COMPLETE THIS SECTION ON DELIVERY

- A. Signature Agent
 Addressee
- B. Received by (Printed Name) C. Date of Delivery
- D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No



3. Service Type
- Certified Mail Express Mail
- Registered Return Receipt for Merchandise
- Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number

(Transfer from service label) 7010 3090 0000 3937 8545 DSW 8/15/12