



**Environmental  
Protection Agency**

Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
Chris Korreski, Director

April 15, 2010

**RE: GROUNDWATER MONITORING  
ELKEM METALS COMPANY - ASHTABULA  
NOTICE OF VIOLATION**

**CERTIFIED MAIL**

Geir Kvernmo  
Elkem Metals Company - Ashtabula LP  
P.O. Box 266  
Pittsburgh, PA 15230-0266

and

Elkem Metals, Inc.  
Airport Office Park Building 2  
400 Rouser Road  
Moon Township, PA 15108

Dear Mr. Kvernmo:

The Ohio Environmental Protection Agency (Ohio EPA) has reviewed the reports that were included with the Ground Water Monitoring Program Plan (GWMPP). The GWMPP and encompassing monitoring reports were dated July 24, 2009, and it was received by Ohio EPA on August 4, 2009. The reports were submitted by David Garrett on behalf of Elkem Metals Company (Elkem). The GWMPP was submitted as part of the facility's Final Closure Plan in accordance with the Director's Final Findings and Orders (DFFO), effective January 10, 2005. Order #5 of the consent order requires Elkem to comply with OAC 3745-27-10 (effective June 1, 1994) for the purpose of developing the GWMPP and implementing the ground water monitoring program.

The monitoring system was sampled for the purpose of establishing background on June 23-24, 2008, August 25-26, 2008, October 27-28, 2008, and March 16-17, 2009. Upon review of the reports, Ohio EPA identified that Elkem is in violation of the following:

1. **Order Number 5** of DFFO that states, in part, *"Beginning on or before May 1, 2005, and continuing until the termination of these Orders, Respondents shall implement a ground water monitoring program for Ponds 3 and 3A in accordance with OAC Rule 3745-27-10 ... Respondents shall submit to Ohio EPA for review and comment the Ground Water Detection Monitoring Plan which has been prepared in accordance with OAC Rule 3745-27-10 (effective June 1, 1994) before May 1, 2005."*

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Page 2

Elkem is in violation of Order Number 5 of the January 10, 2005 DFFOs for failure to submit a ground water detection monitoring plan that meets the requirements of OAC 3745-27-10 (effective June 1, 1994) on or before May 1, 2005. The ground water monitoring was implemented on June 23, 2008 with the sampling of the first background event. Therefore, Elkem missed the May 1, 2005 deadline set in the orders. Elkem must continue with ground water monitoring and conducting statistical analysis to ensure that future sampling events meet the requirements OAC 3745-27-10 (effective July 1, 1994).

2. **OAC Rule 3745-27-10(C)(10)** states, in part, *"...All ground water elevation, sample analysis and statistical analysis results generated in accordance with paragraphs (B), (C), (D)(E), and (F) of this rule shall be submitted to the director or his authorized representative not later than seventy-five days after sampling the well. All ground water data and an accompanying text shall be submitted to the director or his authorized representative..."*

Elkem failed to submit all data associated with the sampling event. The four reports state that "All field data, purge data, and sampling data can be found on Tables I – III, and copies of the original field logs can be furnished upon request." However, Elkem must provide copies of the original field forms, and include them in future reports.

3. **OAC Rule 3745-27-10(B)(5)** states *"The owner or operator shall, at least annually, evaluate the ground water surface elevation data obtained in accordance with paragraph (C)(3) of this rule to determine whether the requirements of paragraph (B) of this rule for locating the monitoring wells continue to be satisfied. The results of this evaluation including potentiometric maps for every geologic unit monitored shall be included in the report required in accordance with paragraph (M) of rule 3745-27-19 of the Administrative Code..."*

**OAC Rule 3745-27-10(C)(10)** states, in part, *"...All ground water elevation, sample analysis and statistical analysis results generated in accordance with paragraphs (B), (C), (D)(E), and (F) of this rule shall be submitted to the director or his authorized representative not later than seventy-five days after sampling the well. All ground water data and an accompanying text shall be submitted to the director or his authorized representative in a form specified by the director or his authorized representative..."*

Elkem failed to submit all data associated with the sampling event. The reports do not contain ground water elevations or potentiometric maps which prohibits Ohio EPA from assessing compliance with OAC 3745-27-10(B)(5). The reports must be revised

to include ground water elevations or potentiometric maps to ensure they are included in future reports.

4. **OAC Rule 3745-27-10(C)(10)** states, in part, *"...All ground water elevation, sample analysis and statistical analysis results generated in accordance with paragraphs (B), (C), (D), and (F) of this rule shall be submitted to the director or his authorized representative not later than seventy-five days after sampling the well. All ground water data and an accompanying text shall be submitted to the director or his authorized representative in a form specified by the director or his authorized representative..."*

Elkem failed to submit all data associated with the sampling event in a form specified by the Director. The reports do not contain summary tables of the data generated during analysis of the samples. Ohio EPA requires that each semi-annual submittal contain a summary table for each well, or surface water sample, that includes data from previous events. This allows the agency to easily compare the results over time and from well to well. Therefore, future reports of ground water quality must contain summary tables, as described above, to avoid future violations.

5. **OAC Rule 3745-27-10(C)(10)** states, in part, *"...All ground water elevation, sample analysis and statistical analysis results generated in accordance with paragraphs (B), (C), (D), and (F) of this rule shall be submitted to the director or his authorized representative not later than seventy-five days after sampling the well. All ground water data and an accompanying text shall be submitted to the director or his authorized representative in a form specified by the director or his authorized representative..."*

Elkem failed to submit all ground water data and accompanying text to the Director within 75 days after sampling the well. All four sampling events took place on, or before, March 16-17, 2009 and the reports were received by Ohio EPA on August 4, 2009, far exceeding the required 75 days specified in the rule. During future events, Elkem must ensure that the reports of ground water quality are submitted to the agency within the required timeframe of 75 days to avoid future violations. The GWMPP should also be revised to clearly indicate that the requirements of OAC 3745-27-10(C)(10) will be met.

In conclusion, the reports require revision to meet the applicable requirements of OAC 3745-27-10. Both the GWMPP and reports should be revised. Ohio EPA also noted that a section titled Sampling Notes, in the June report, indicates that 14 wells were sampled while the GWMPP identifies only 13 wells. The accompanying tables, in all four reports, lists 16 wells.

Geir Kvernmo  
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April 15, 2010  
Page 4

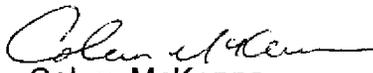
Therefore, Elkem must provide Ohio EPA with an explanation on the discrepancy and revise the reports as necessary.

Please respond within 30 days of the date of this letter addressing on how Elkem will address the violations. Also note that this letter only pertains to the review of the ground water monitoring reports. There will be a separate correspondence from this office in regards to Ohio EPA review of the GWMPP.

Nothing in this letter shall be construed to authorize any waiver from the requirements of any applicable state or federal laws or regulations. This letter shall not be interpreted to release the Entity from responsibility under Chapters 3704, 3714, 3734, or 6111 of the Ohio Revised Code or under the Federal Clean Water or Comprehensive Environmental Response, Compensation, and Liability Acts for remedying conditions resulting from any release of contaminants to the environment.

If you have any technical questions regarding this review, please contact Russ Kocher at (330) 963-1203. Please submit all correspondence to Colum McKenna, Division of Solid and Infectious Waste Management, Northeast District Office, Ohio EPA, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Sincerely,



Colum McKenna  
Environmental Specialist  
Division of Solid and Infectious Waste Management

CM:cl

cc: John Hujar, DSIWM-NEDO  
Barry Chapman, DSIWM-CO  
Jeff Hurdley, Legal-CO  
Ray Saporito, ACHD  
Robert Karl, Ulmer & Berne, LLP  
David Renfrew, Elkem  
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1. Article Addressed to:

Geir Kvernmo  
Elkem Metals Company-Ashtabula LP  
P.O. Box 266  
Pittsburgh, PA 15230-0266

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1. Article Addressed to:

Elkem Metals, Inc.  
Airport Office Park Building 2  
400 Rouser Road  
Moon Township, PA

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