



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

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

September 4, 2007

RE: MORGAN ELECTRO CERAMICS
(A.K.A. VERNITRON/AXSYS
TECHNOLOGIES)
CUYAHOGA COUNTY
OHD 052 324 290

Mr. Donald Fay
The Payne Firm, Inc.
1382 West Ninth Street
Suite 200
Cleveland, OH 44113

Dear Mr. Fay:

The Payne Firm submitted Third Quarter 2006, Fourth Quarter 2006, and First Quarter 2007 reports documenting the results of ground water monitoring activities at the Morgan Electro Ceramics facility in Bedford, Ohio. The facility is in the assessment phase of monitoring in accordance with OAC 3745-65-90 through 94.

Monitoring wells MW-1 through MW-3 are sampled quarterly. Monitoring wells MW-4 through MW-8 and DW-1 are sampled semi-annually. The highest concentrations of contaminants were detected in MW-1, MW-2, and MW-3.

Ohio EPA's comments on the reports are presented below. Please submit a response to the comments within 30 days of receipt of this letter.

VIOLATION:

1. OAC rule 3745-65-75(F), ground water annual report:
The owner/operator must prepare and submit an annual report to the director by March first of each year. The report form and instructions supplied by the director must be used for this report. The annual report must cover facility activities during the previous year and must include monitoring data under paragraphs (A)(2)(b), (A)(2)(c), and (B)(2) of OAC rule 3745-65-94.

The annual report for 2006 was not submitted. Although the Payne Firm has indicated that all of the data for 2006 was included on Table 2 of the fourth quarter ground water monitoring report, this table is actually a compilation of all of the historical data from the site. Additional information that is required in an annual report is not included in the fourth quarter ground water monitoring report, nor has the data been submitted on CD as required by the instructions supplied by the director. **This violation was abated. The Payne Firm submitted the 2006 annual report on August 16, 2007 and no further response to this violation is required. Comments on the 2006 annual report will be submitted under a separate cover.**

COMMENTS:

2. Insufficient information was submitted with the fourth quarter 2006 report to determine if the data is valid. **In the future, the QA/QC information required to perform a Tier 1 data validation should be submitted with each ground water monitoring report.** This includes all blank data (e.g., trip blank, method blanks), laboratory control sample data, MS/MSD data, and surrogate data. Chain-of-custody forms also should be submitted as well as a laboratory sample receipt form documenting the condition of the samples when they arrived at the laboratory. More information concerning what data is required to perform a Tier 1 data validation can be found at the following Ohio EPA Website:
[http://www.epa.state.oh.us/dhwm/tier i data validation manual.html](http://www.epa.state.oh.us/dhwm/tier%20i%20data%20validation%20manual.html).
3. During the fourth quarter 2006 sampling event, water level elevations were not obtained from MW-5 and MW-6. As per the approved GWQAP, water level elevations are to be obtained from all of the site wells during each quarterly sampling event. Since these wells are not located on the company's property, access to the wells must be granted by adjoining property owners. **The company should clarify why water level elevation data for MW-5 and MW-6 was not included in the fourth quarter 2006 report.**
4. In both the fourth quarter 2006 and the first quarter 2007 monitoring reports, it states that temperature and pH were measured and recorded after each well volume. As per the approved GWQAP and also the Payne Firm Standard Operating Procedures attached as an Appendix, specific conductance also should be measured and recorded. The field data was not submitted with the report, so it is unclear whether specific conductance was measured and recorded. **In the future, the field parameter data and purging logs should be submitted for review with each data submittal.**
5. In the fourth quarter 2006 and first quarter 2007 reports, it states that samples were stored overnight in a refrigerator at the Payne Firm's Medina office. Please be aware that the validity of the samples may be compromised if the chain of custody was broken and custody seals were not used.
6. On page three of the fourth quarter 2006 report, it states that the samples were shipped overnight to the laboratory on December 15, 2006. However, the laboratory did not receive the samples until December 18, 2006. If the samples were shipped overnight delivery from Medina to North Canton, it is unclear why the samples did not arrive at the laboratory on December 16, 2006, instead of three days later (December 18, 2006). The location of the samples during these three days should be documented. In addition, a laboratory receipt form is not included in the data package for this sampling event. Therefore, it is not known if the samples were received by the laboratory at an acceptable temperature. In order for the data to be valid, the samples must be maintained at or below 4° C.

The company should provide the sample receipt form documenting the temperature of the samples upon receipt by the laboratory. This is of particular concern considering the samples were in transit to the laboratory for three days.

7. Practical Quantitation Limits (PQLs) for the data from MW-1, MW-2, and MW-3 during the fourth quarter 2006 sampling event were elevated above previous levels. Therefore, some contaminants that are typically detected were not detected during this sampling event. For example, benzene at 21.5 ug/L was detected in the sample from MW-1 during the September 2006 sampling event. In December 2006, the PQL increased to 120 ug/L and in March 2007, the PQL was 50 ug/L. Because of the increased PQLs, it is not possible to determine if benzene above the MCL of 5 ug/L is still in the ground water in the vicinity of MW-1. **In the future, the company should ensure that the PQLs are more in line with those achieved historically. PQLs and/or detection limits also should be below any applicable MCLs.**
8. In the third quarter 2006 ground water monitoring report, it states on page four that the company was assessing whether other potential sources of cis-1,2-DCE and several BTEX compounds detected during that sampling event should be investigated. Subsequent reports do not discuss what the company decided during this assessment. **The company should submit clarification concerning this issue.**
9. **Please ensure the correct site identification number is used on future reports (OHD 052 324 290).**
10. The fourth quarter 2006 and first quarter 2007 reports indicate that the wells were purged and sampled according to Payne Firm Standard Operating Procedures. The procedures are included in an appendix to the reports. The procedures are generic, not site specific, and include multiple procedures for many activities. Morgan Matroc has an approved ground water quality assurance plan (GWQAP) that is site specific and includes the approved procedures for well purging and sampling. It is recommended that the company ensure that all purging and sampling are conducted in accordance with the approved procedures included in the GWQAP. **If the company would like to change the procedures used to purge and sample the wells, then it should submit a request to modify the GWQAP to the Ohio EPA for review and approval.** This request should fully document the proposed revisions and all procedures should be site specific, not generic in nature. Until approval for modifying the procedures is obtained, the company should ensure that all purging and sampling activities are conducted as per the approved GWQAP.
11. In the fourth quarter 2006 and first quarter 2007 reports, the company refers to a "holding blank." **The company should clarify what it means by a "holding blank."**

12. In order to prevent misunderstandings, it is recommended that the text of the ground water monitoring reports document not only that the ground water monitoring is being conducted in accordance with the approved GWQAP, but also that the ground water monitoring is in accordance with OAC 3745-65-90 through 94.
13. The ground water flow maps submitted with the fourth quarter 2006 and first quarter 2007 reports do not include arrows showing the implied direction of ground water flow. **In the future, in order to avoid misunderstandings, all ground water flow maps should include an arrow or arrows showing the direction(s) of ground water flow.**
14. The detection of methylene chloride in samples from the site has been a historic problem. Many times the concentration of methylene chloride detected exceeds the MCL of 5 ug/L. During the third quarter 2006 sampling event, the concentration of methylene chloride detected in the sample from MW-1 was 16.5 ug/L. Although the company has cited laboratory contamination as the source of this contamination both historically and during the third quarter 2006, it should be noted that during the September 2006 sampling event, methylene chloride was only detected in this sample. It was not detected in any other sample or in the trip or method blanks. **Ohio EPA will continue to evaluate whether the occurrence of methylene chloride is due to laboratory contamination.**
15. In the fourth quarter 2006 report, it states that the concentration of methylene chloride in the method blank was similar to the concentration of methylene chloride detected in samples from monitoring well MW-1 (400 ug/L), MW-2 (24 ug/L) and MW-3 (220 ug/L). However, the method blank data was not submitted and therefore Ohio EPA could not confirm this statement. **In the future, ground water monitoring reports should include all of the laboratory QA/QC information including the method blank data.**
16. In the fourth quarter 2006 report, it states that the ground water flow direction had changed to a southwest direction. However, water level elevations were not obtained from several wells during this sampling event and this may have affected the calculation of the ground water flow direction.
17. The correct citation of the VOC analytical method is SW846 Method 8260**B**. In the fourth quarter 2006 and first quarter 2007 reports, this method is incorrectly referred to as U. S. EPA Method 8260.
18. The potentiometric surface map submitted with the first quarter 2007 report has several errors. Based upon the static water level elevation for MW-1, it should be located on the other side of the 1001.00 contour. In addition, the water level elevations recorded on Table 1 for MW-6 (1000.18 feet) and MW-1 (1000.97 feet) do not match the water level elevations recorded on Figure 3 for these wells (1001.10 feet and 1000.99, respectively).

In the future, the company should ensure that the ground water flow maps are constructed correctly and that data documented on figures and tables are recorded accurately.

19. On Table 2, a summary of historical detections in the site monitoring wells, concentrations below the detection limit have always been documented as the detection limit with the U flag. When the data for the first quarter 2007 was added to this table, concentrations below the detection limit were only denoted as ND. **In the future, to make this table more usable, the company should go back to documenting concentrations below the detection limit by specifying the detection limit and flagging it with a U.** This is the only way to track whether a compound was not detected because it wasn't there or whether it wasn't detected because the detection limit was elevated.

Should you have any questions, please feel free to contact me at (330) 963-1278 or by email wade.balser@epa.state.oh.us

Sincerely,



Wade Balser
District Representative
Division of Hazardous Waste Management

WB:ddw

cc: Heidi Goldstein, Thompson Hine LLP
William Hocevar, Morgan Electro Ceramics
Diane Kurlich, DDAGW, NEDO
ec: Natalie Oryshkewych, DHWM, NEDO