



Environmental Protection Agency

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

April 4, 2012

RE: ALCOA LANDFILL
GROUND WATER MONITORING
NOTICE OF VIOLATION

CERTIFIED MAIL 7010 3090 0000 3936 7457

Mr. Richard King, Jr.
Aluminum Company of America
1600 Harvard Avenue
Cleveland, Ohio 44105

Dear Mr. King:

The Ohio Environmental Protection Agency (Ohio EPA) Northeast District Office (NEDO) Division of Materials and Waste Management (DMWM) received the "Semi-Annual Sampling and Analysis Report, December 2011 Sampling Event and Assessment Monitoring Report." The document was dated January 31, 2012, and received by Ohio EPA on February 16, 2012. It was prepared for ALCOA's Cleveland Works Landfill by Environmental Management and Consulting, Inc. (EM&C). The document was submitted in accordance with Ohio Administrative Code (OAC) Rules 3745-30-08(C) and (E) of the revised 2003 Residual and Industrial Solid Waste Disposal Regulations.

Upon review of the document, Ohio EPA finds that Alcoa is in violation of OAC Rule 3745-30-08(B)(3)(e) that states that all monitoring wells, included in the ground water monitoring program shall be designed, installed, and developed in a manner that allows the collection of ground water samples that are representative of ground water quality in the geologic unit being monitored, and "[t]he monitoring wells, piezometers, and other measurement, sampling, and analytical devices shall be operated and maintained to perform to design specifications throughout the life of the ground water monitoring program."

Alcoa failed to maintain a ground water monitoring program that allows the collection of ground water samples that are representative of ground water quality in the geologic unit being monitored. In particular, Ohio EPA noted that piezometer PZ-11 has been damaged since 2004, and Ohio EPA has repeatedly recommended that the piezometer be properly abandoned. Furthermore, it now appears that piezometer PZ-7 is also damaged. To comply with this rule, piezometers PZ-7 and PZ-11 and any other monitoring wells or piezometers that are damaged should be properly abandoned and documented via abandonment reports.

Ohio EPA also noted that most of the volatile organic chemical concentrations are stable or decreasing. However, monitoring well AL28 has increasing concentrations of vinyl chloride and cis-1,2-dichloroethene and monitoring well AL-21 which had its first detection of trans-1,2-dichloroethene (see table below).

Table with 5 columns: Parameters units ug/L, MCL, UAS AL-21, SZS AL-23S, AL-24, AL-28. Row 1: vinyl chloride, 2, 2.9 decreasing, ND, ND, 5.4 increasing

Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087-1924

330 | 963 1200
330 | 487 0769 (fax)
www.epa.ohio.gov

Mr. Richard King, Jr.
 Aluminum Company of America
 April 4, 2012
 Page 2

1,1-DCA	1400 OVAP	ND	3.5 decreasing	9.9 decreasing	19 decreasing
1,1,1-TCA	200	ND	ND	1.6 decreasing	0.41J decreasing
cis-1,2-DCE	70	8.8 increasing	ND	1.2 decreasing	5.2 increasing
trans-1,2-DCE	100	0.24J increasing	ND	ND	2.1 stable
trichloroethene	5	ND	ND	0.66J decreasing	0.80J decreasing
chloroethane	6100 OVAP	ND	0.69J decreasing	ND	1.6 stable

Although ground water flow direction in the uppermost aquifer is generally west to west-southwest toward the Cuyahoga River, Ohio EPA noted that the river gage indicates that river level is higher than aquifer levels. This suggests a lag time in aquifer response to river level or the river gauge may have moved. Therefore, Ohio EPA recommends that the river gauge be resurveyed on a regular basis to determine whether the reference point remains at the original elevation.

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 Kathryn Epp at (330) 963-1233. Please submit all correspondence to Colum McKenna, Division of Materials and Waste Management, Northeast District Office, Ohio EPA, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Sincerely,



Colum J. McKenna
 Environmental Specialist
 Division of Materials and Waste Management

CJM/cl

cc: Kathryn Epp, DDAGW, NEDO
 Kelly Jeter, DMWM, CO
 Marty Cooper, Legal
 Dane Tussel, Cuyahoga County Board of Health
 File: [SOWERS/LAND/Alcoa Landfill/COR/18] DMWM #4296

Patrick Cook, TTS
 Tom Anderson, EM&C