



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
122 S. Front Street
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

OHIO E.P.A.

MAILING ADDRESS:

JUN 18 2002
Columbus, OH 43216-1049

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ENTERED DIRECTOR'S JOURNAL

Mr. David Vossmer
Browning-Ferris Industries of Ohio, Inc.
530 North Camp Road
Port Clinton, Ohio 43452

**Re: Ottawa County Landfill, Ottawa County
Ohio Administrative Code (OAC) Rule 3745-27-10(D)(7)(c)
Approval (Aresenic)/Decline to Approve (COD) at MW-32**

Dear Mr. Vossmer:

By letter dated April 4, 2002, the Northwest District Office (NWDO) of the Ohio Environmental Protection Agency (Ohio EPA) received an authorization request from Civil & Environmental Consultants, Inc., pursuant to Ohio Administrative Code (OAC) Rule 3745-27-10(D)(7)(c) to continue detection ground water monitoring for the Ottawa County Landfill (Facility). Ohio EPA has completed a review of the April 4, 2002, letter regarding a demonstration that elevated constituent concentrations in the ground water at bedrock monitoring well MW-32 are not attributable to contamination from the Facility. MW-32 is a downgradient monitoring well screened in the uppermost aquifer system. During the December 2001 semi-annual sampling event, statistically significant increases for arsenic (52 µg/L) and COD (496 mg/L) were noted at MW-32. Arsenic was detected at higher concentrations during four previous sampling events at MW-32 and as high as 101 µg/L during the June 1999 sampling event. This demonstration is based on information from trend plots for arsenic and COD at MW-32, tritium data at MW-32 and from the leachate at the landfill. Ohio EPA received notification of the statistically significant arsenic and COD increase at MW-32 on February 25, 2002.

Arsenic

The April 4, 2002, letter includes trend plots for arsenic concentrations over time at MW-32 and states that the trend plots do not indicate an upward concentration trend that would be indicative of a release from the landfill. Ohio EPA concurs that there is no apparent increasing trend for arsenic at MW-32.

Therefore, pursuant to OAC Rule 3745-27-10(D)(7)(c), Ohio EPA approves the demonstration for arsenic at MW-32 and the owner/operator of the Ottawa County Landfill may continue ground water detection monitoring for arsenic at MW-32.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency

Bob Taft, Governor
Maureen O'Connor, Lieutenant Governor
Christopher Jones, Director

John A. Cleveland 6/18/02

Should future or existing ground water sampling results indicate statistically significant changes in the ground water quality for this or other detection monitoring locations, the facility owner/operator will be required to enter into assessment monitoring in accordance with OAC Rule 3745-27-10(E), or obtain similar approval to remain in detection monitoring.

You are hereby notified that the action of the Director of Environmental Protection, explained in the previous paragraphs for MW-32 (Arsenic), is final and may be appealed to the Environmental Review Appeals Commission (Commission) pursuant to Ohio Revised Code Section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Commission within thirty (30) days after notice of the director's action. A copy of the appeal must be served on the Director of Environmental Protection within three (3) days of filing with the Commission. An appeal may be filed with the Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

Chemical Oxygen Demand (COD)

The April 4, 2002, letter includes trend plots for COD concentrations over time at MW-32 and states that the trend plots do not indicate an upward concentration trend that would be indicative of a release from the landfill. In addition to trend plots, tritium testing was performed to measure the tritium concentration at MW-32. The level at MW-32 was 1 tritium unit (TU) which was much lower than the level of tritium in leachate (244 to 7,041 TU). However, this tritium concentration was analyzed at MW-32 only once, in November 1999.

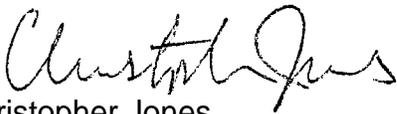
According to Clark, Ian D. and Fritz, Peter (*Environmental Isotopes in Hydrogeology*, 1997), "**As geogenic H³ [tritium] in most groundwaters is negligible, measurable H³ in groundwaters virtually always signifies modern recharge. When levels are high (>~30 TU), thermonuclear bomb H³ is implicated, indicating recharge during the 1960's. Groundwaters containing levels of tritium that are close to detection (~1 TU) are most often submodern or paleogroundwaters that have mixed with shallow modern groundwaters...**". Based on this statement and the results of the November 1999 tritium testing at MW-32, it appears that the ground water at MW-32 through November 1999 did not contain recent (1960's and later) infiltration.

Ottawa County Landfill, Ottawa County
OAC Rule 3745-27-10(D)(7)(c) Approval (Arsenic)/ Decline to Issue (COD) at MW-32
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However, since tritium has not been analyzed at MW-32 since November 1999, which was more than two years before the December 2001 sampling event which indicated the statistically significant increase of COD at MW-32, the owner/operator has not shown that the increase in COD was not a result of contaminant migration after that time.

Therefore, there *is* insufficient evidence to support the owner/operator's demonstration for COD and I decline to grant approval to return to ground water detection monitoring for COD at MW-32. If you have any questions please feel free to contact Ken Brock of Ohio EPA, Northwest District Office at (419) 373-3143. Any written correspondence should be sent to the attention of Beth Skulina, Ohio EPA, NWDO-DSIWM, 347 N. Dunbridge Road, Bowling Green, Ohio 43402.

Sincerely,



Christopher Jones
Director

cc: Scott Hester, DSIWM-COV
Beth Skulina, DSIWM-NWDO
Ken Brock, DDAGW-NWDO
Pat Norts, BFIO, Lorain County Landfill
Robert Harklau, Civil Environmental Consultants
Dave Vossmer, Browning-Ferris Industries of Ohio, Port Clinton