

**Environmental
Protection Agency**

Governor
Lt. Governor
Director

July 20, 2011

RE: COLUMBIANA COUNTY
MADISON TOWNSHIP
ROSEBUD COMPANY, INC.
NPDES PERMIT NO. 31N00247

NOTICE OF VIOLATION

Mr. Gary Alkire
Rosebud Mining Company, Inc.
P.O. Box 389
Lisbon, OH 44432

Dear Mr. Alkire:

On March 3, 2011, this writer conducted an inspection of the Rosebud flyash disposal site in West Point. A follow up inspection of the monitoring wells was conducted June 21, 2011. The intent of the inspection was to monitor the compliance status of the facility and prepare for the drafting of the renewal NPDES permit. The weather on the day of the inspection was sunny and cool.

NPDES Discharge:

On the day of the inspection, the system appeared to be operating normally. Three sediment traps have been constructed and discharge to pond 2. When needed, the final effluent discharges out of Pond 2 through a manual valve. The rest of the time the pond water is used for dust suppression. A review of the Monthly Operating report data for the last three years (March 2008-March 2011) revealed only a few violations from outfall 001. There have been three pH violations and one Dissolved Oxygen violation. There have not been any discharge violations since May 2009.

The renewal application was submitted in 2008. The property has been sold since that time and a revised NPDES permit application must be submitted with the current owners' signature. If any additional outfalls will be necessary for the storm water pollution plan, they should be included.

Storm water from the northeast portion of the site that was disturbed was not reaching the storm water ponds and needed diversion ditches to be installed to correct the problem. This area does not appear to be part of the original Permit to Install. A revised Permit to Install will have to be submitted to address these areas. Since then, work at the site has directed water in this area to the sites treatment pond.

This office is in the process of drafting the renewal permit. The new permit will incorporate storm water language and require the drafting of a storm water pollution prevention plan. Storm water that does not come in contact with the flyash will be managed though this plan.

MR. GARY ALKIRE
JULY 20, 2011
PAGE 2

Groundwater:

The groundwater and system program approved by this office the two Permit to Install's is not being performed. Sampling procedures and protocols are not being followed. Three wells were to be installed in the Mahoning #7A Coal were never constructed. Due to complaints by a neighboring resident, Mr. Jeff Rizzo, Hydrogeologist of this office, conducted a thorough review of the hydrogeological program. Mr. Rizzo's comments are attached to this correspondence. Within 30 days of the receipt of this letter, an updated hydrogeologic characterization and groundwater monitoring program must be submitted to this office addressing Mr. Rizzo's comments. The proposed groundwater monitoring program will also be included in the new NPDES permit.

N-viro Process:

This equipment has been taken out of service and the product that was being stored on site has been spread as cover material on the site. The current owners have no intention of continuing this process.

If you have any questions, you can contact me at (330) 963-1193 or at the e-mail address joe.trocchio@epa.state.oh.us.

Sincerely,



Joseph E. Trocchio
Division of Surface Water
Northeast District Office

JET:bo

enclosure(s)

pc: Mike Madison, Site Manager

Redbud Effluent Violations: March 2008 - March 2011

Permit No	Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
3IN00247*DD	June 2008	pH	1D Conc	9.0	9.09	6/11/2008
3IN00247*DD	June 2008	Dissolved Oxygen	1D Conc	5.0	4.5	6/6/2008
3IN00247*DD	May 2009	pH	1D Conc	9.0	9.28	5/6/2009
3IN00247*DD	May 2009	pH	1D Conc	9.0	9.14	5/27/2009
3IN00247*DD	February 2011	Total Suspended Solids	30D Conc	35	58.	2/1/2011
3IN00247*DD	March 2011	Total Suspended Solids	1D Conc	70	81.	3/3/2011
3IN00247*DD	March 2011	Total Suspended Solids	30D Conc	35	81.	3/1/2011

Interoffice Memo

To: Joe Trocchio, Environmental Specialist, DSW, NEDO
From: Jeffrey Pizzo, Hydrogeologist, DDAGW-NEDO
Date: June 13, 2011
Facility: Redbud Landfill – White Road, Madison Township, Columbiana County –
Coal Flyash Landfill
Subject: Complaint Investigation

INTRODUCTION

Ohio Environmental Protection Agency (Ohio EPA), Division of Drinking and Ground Waters (DDAGW), Northeast District Office (NEDO), received from U.S. EPA, a notice of a citizen complaint from Milton Cook. Mr. Cook's complaint pertained to ground water quality degradation within his residential well. The complaint potentially attributes the residential well water quality degradation to the Redbud Landfill, a flyash disposal facility and/or Deep Mine 11 (permit D-0928), an underground mine within the Mahoning/#7A Coal. Redbud Landfill is regulated by Ohio EPA, and Deep Mine 11 is regulated by Ohio Department of Natural Resources (ODNR), Division of Mineral Resource Management (DMRM). On April 1, 2010, Rosebud Mining Inc. assumed ownership of both regulated units from Buckeye Industrial Mining Co.

Redbud Landfill is an active flyash disposal facility currently accepting fly and bottom ash generated from coal combustion. Between March 2007 and July 2010, Redbud Landfill accepted biological waste sludge which was then blended with ash prior to final disposal at the facility.

Redbud Landfill is located within an area previously strip mined. An adjacent underground mine, DM-11, was in operation between January 1996 and December 2000. Figure 1, developed by Eagon and Associates on behalf of Rosebud Mining, illustrates the lateral extent of the underground mine in relation to the Redbud Landfill, residential and site production wells, monitoring wells, oil and gas wells, ponds, and topography.

In his investigatory summation to D. Michael Jamison of Rosebud Mining, David Sugar of Eagon and Associates indicates that Buckeye Industrial Mining Co. sealed DM-11 between January and June 2001 by stopping dewatering operations within the mine, the entrance pit was then buried, and then the entrance pit was completed as pond P-004. No records exist which detail the mine sealing operations and it is assumed that the mine entrances were merely buried within mine spoils. The pond P-004 created through the abandonment process is located directly above the underground mine entrance pit and as of April 2011 remained the lowest elevation on the Redbud Landfill

TO: JOE TROCCHIO
REDBUD LANDFILL
JUNE 14, 2011
PAGE 2 OF 5

property. During a telephone conversation with Mr. Cook on June 7, 2011, Mr. Cook indicated that Rosebud Mining has recently begun filling in pond P-004.

While the Ohio EPA has regulatory authority of the Redbud Landfill, the Ohio Department of Natural Resources (ODNR) Division of Mineral Resource Management (DMRM) has regulatory authority of underground mine DM-11. ODNR DMRM is currently conducting a separate investigation regarding the possibility of DM-11 to have adversely impacted the ground water quality.

Ohio EPA Division of Surface Water (DSW) has requested the Division of Drinking and Ground Waters (DDAGW) to investigate the potential of the Redbud Landfill to have adversely impacted ground water quality entering the complainant's well.

Upon review of the available information and data, DDAGW has determined the following:

1. The area bedrock geology is comprised of Pennsylvanian-aged sedimentary bedrock of the Allegheny and Conemaugh Groups. Specific stratigraphic sequence identified at the Redbud Landfill are from youngest to oldest:

Conemaugh Group

- Wilgus Shale
- Brush Creek Shale
- Brush Creek Coal
- Brush Creek Underclay
- Brush Creek Shale
- Mason Coal
- Mason Underclay
- Upper Mahoning Sandstone
- Upper Mahoning Shale
- Mahoning / #7A Coal
- Mahoning Underclay
- Lower Mahoning Sandstone
- Lower Mahoning Shale

Allegheny Group

- Upper Freeport / #7 Coal
- Upper Freeport Underclay

2. The complainant's well is completed at a depth of 222 feet below ground surface, and has 26 feet of surficial casing. Below 26 feet from the surface, the well is completed as an open borehole with the terminal depth corresponding to an elevation several feet below that of the Upper Freeport/#7 Coal. Therefore, the

TO: JOE TROCCHIO
REDBUD LANDFILL
JUNE 14, 2011
PAGE 3 OF 5

well has the capacity to receive ground water from several hydrostratigraphic units, including the Upper Freeport/#7 Coal and the Mahoning/#7A Coal.

3. During construction of Phase I of the Redbud Landfill, ground water monitoring wells: MW-4, MW-5, MW-6, MW-9 were installed, completed across both the Lower Mahoning Sandstone and Upper Freeport/#7 Coal, and retained within a Ground Water Monitoring Program.

COMMENTS

1. Ohio EPA DDAGW Comment #2, contained within the February 1, 1996 IOC from Eric Adams to John Kwolek, required Redbud Landfill to submit additional information and data to adequately characterize the hydrogeologic properties of the Mahoning/#7A Coal.

Redbud Landfill responded to Comment #2 of the February 1, 1996 IOC, in correspondence, dated July 22, 1996. Within the July 22, 1996 correspondence, Redbud Landfill indicated the generalized direction of ground water flow within the Mahoning/#7A Coal on Revised Drawing RBWPP2-26. To evaluate the potential of the Mahoning/#7A Coal to be a Significant Zone of Saturation or a portion of the Uppermost Aquifer System, Redbud Landfill proposed locations, and installation of additional Mahoning/#7A Coal ground water monitoring wells, MW-10, MW-11, and MW-12.

As indicated above, DM-11 began operation in January 1996, and dewatering activities would minimize the quantity of ground water within the Mahoning/#7A Coal. When underground mining activities stopped in December 2000, ground water within the Mahoning/#7A Coal would have begun to return to potentiometric levels.

- A. Redbud Landfill has not installed ground water monitoring wells MW-10, MW-11, and MW-12. Therefore, Redbud has not evaluated the hydrogeologic characteristics of the Mahoning/#7A Coal.
- B. Redbud Landfill has not evaluated the potential of the Mine Spoil to act as a preferential pathway of potentially impacted ground water away from the limits of waste placement and to be a Significant Zone of Saturation or part of the Uppermost Aquifer System.
- C. Redbud Landfill is not monitoring the appropriate hydrostratigraphic unit(s) in order to be capable of detecting an immediate release from the facility.

TO: JOE TROCCHIO
REDBUD LANDFILL
JUNE 14, 2011
PAGE 4 OF 5

- D. The current Ground water Monitoring Program has an insufficient quantity of ground water monitoring wells to adequately detect an immediate release from the facility.
2. The current Ground Water Monitoring Program does not include:
 - A. The collection field data on field information forms. The collection and recording of field data and information is required to document consistent sampling procedures to ensure the collection of ground water samples representative of the quality of ground water obtained directly from the hydrostratigraphic unit.
 - B. The submittal of laboratory Quality Assurance and Quality Control information, and data to document consistent analytical techniques to ensure the laboratory analyses are representative of the quality of ground water sampled.
 3. Redbud historically, has utilized submersible pumps with a minimum discharge of five gallons per minute to acquire ground water samples.
 4. Redbud does not collect (and/or submit a record) of field parameters to ensure stabilization of ground water prior to sampling to ensure representativeness of ground water quality.
 5. Redbud does not purge (and/or submit a record) a minimum of three well volumes to ensure representativeness of ground water quality.
 6. The parameter list contained on the analytical laboratory resultant data sheet is inconsistent with the parameter list specified in Condition 7 of the Phase II – PTI#02-9842.
 7. Redbud does not record or submit the record of the containers and preservatives utilized in transporting ground water samples from the facility to the analytical laboratory.
 8. Redbud does not submit annual ground water flow maps based on ground water level measurements, as indicated within the Ground Water Monitoring Plan.
 9. Redbud does not conduct and/or submit statistical analyses of the ground water data to determine a potential release from the facility.

TO: JOE TROCCHIO
REDBUD LANDFILL
JUNE 14, 2011
PAGE 5 OF 5

CONCLUSION

Upon review of the available information and data, DDAGW has determined that the current ground water monitoring program plan is incapable of detecting a release from the facility. While the current sampling and analysis plan is inadequate, the manner in which Redbud Landfill acquires, records, transports, and analyzes the ground water samples, ultimately yields data that is incapable of being documented to be representative of ground water obtained directing from the hydrostratigraphic unit. Redbud Landfill has not annually determined the direction of ground water flow within the monitored hydrostratigraphic unit to ensure the proper location of ground water monitoring wells. Although the ground water data cannot be appropriately verified, Redbud has failed to statistically analyze the data.

DDAGW cannot determine if Redbud Landfill has adversely impacted ground water quality downgradient of the limits of waste placement because:

1. Redbud has not conducted sufficient subsurface investigations to determine if Redbud Landfill is monitoring the appropriate hydrostratigraphic unit(s).
2. The ground water monitoring data that Redbud Landfill has generated is incapable of being determined to be representative of ground water quality downgradient of the limits of waste placement.

DDAGW recommends that Redbud Landfill reevaluate the hydrogeologic characterization of the subsurface such that an appropriate ground water monitoring program be developed that consists of an appropriate sampling and analysis plan, statistical analysis plan and appropriate reporting such that a potential release from the facility is capable of being detected.

JR:ds

pc: File #GW-CO-134

ec: Lindsay Taliaferro III, Manager, Ohio EPA, DDAGW, CO
Eric R. Adams, Manager, Ohio EPA, DDAGW, NEDO
Virginia Wilson, Supervisor, Ohio EPA, DSW, NEDO
Rich Blasick, Manager, Ohio EPA, DSW, NEDO

WO# 8-0046