

Other Coal Ash Sites

September 2011

In addition to the coal ash impoundments at coal fired electric power plants, the Illinois Environmental Protection Agency (Illinois EPA) also works with a number of other sites with coal combustion residues. Illinois EPA also coordinates with the Department of Natural Resources (DNR) Office of Mines and Minerals (OMM) on the coal mine related sites. The following provides a synopsis of and status of Illinois EPA activities at some of these other sites:

U.S. Minerals, Montgomery County - U.S. Minerals is located on the south side of Coffeen and receives boiler slag from the Coffeen Power Plant, grinds and sizes the granules and ships them to facilities that make asphalt roofing shingles and blasting media. We received dust complaints from Coffeen citizens in 2004, 2005, 2006 and a violation notification letter (VNL) was sent in 2006. The company installed bag houses on the process and the facility currently has a Bureau of Air (BOA) state operating permit. We have not recently received any complaints about operations at this location. Storm water discharges from the site are covered by the general National Pollution Discharge Elimination System (NPDES) Permit for storm water associated with industrial activity (ILR005838)

Springfield Coal Company's Crown III Mine Site, Macoupin County - This mine is located west of Farmersville and coal trucks backhaul fly ash and coal ash to the mine. Trucks dump the ash into an enclosed shed equipped with multiple water sprays to capture dust. The ash is sluiced out to a pond. A truck driver complained about blowing dust in 2004 and an Illinois EPA Bureau of Land – Bureau of Air (BOL-BOA) multimedia inspection was performed. BOL sent a VNL 9/28/04 for BOL violations. No other complaints have been received by BOA Field Operations Section (FOS). The mine currently has a BOA State operating permit.

The Crown III Mine is also inspected by OMM a minimum of once a month. Per OMM, dust is not normally observed blowing from the permit area, but when it is, the operator is required to water down the disposal areas using water trucks. Runoff from the disposal areas is directed to the sediment ponds found on the mine site. DNR has not received any complaints concerning dust for the Crown III Mine.

Certain contaminant concentrations in the Toxicity Characteristics Leaching Potential (TCLP) leachate analysis may exceed the Class II groundwater standards. However, it is noted that in general, the TCLP analysis is an acid leachate test the results from which are considered to be a “worse-case” scenario since the coal combustion waste (CCW) material will be maintained in an alkaline environment. Therefore, for most constituents the TCLP analysis results will provide an overstatement of actual

concentrations expected to be experienced under field conditions. As these analyses overstate anticipated actual leachate concentrations, these materials are anticipated to pose no threat to the nearby water resources.

As part of the recent NPDES permit renewal process for this facility, the applicant has been required to develop and implement an updated fugitive dust control plan. Prior to re-issuance of a renewed NPDES permit for this facility, appropriate conditions will be incorporated to address fugitive dust issues based on the good mining practices of 35 Ill. Adm. Code 406.204 and the dust control plan currently being developed.

An inspection of this facility was conducted on July 12, 2011. Discharge Monitoring Reports (DMR's) showed compliance with NPDES Permit No. IL0059471 limits. No significant issues with regulated outfalls or runoff were noted during the inspection. No evidence was observed of "coal ash being distributed onto the land, eventually draining into streams." Runoff from the ash disposal area and the coal mine waste areas appeared to be tributary to sedimentation ponds and the permitted outfalls. It was reported that there were 23 groundwater monitoring wells onsite per a Subtitle D permit; however, monitoring well data was not reviewed as part of this inspection. No water related complaints regarding this facility have been received by Springfield Regional Office in the past 20 years. No problems with dust were noted on July 12, 2011 BOW FOS inspection, but the wind was less than 5 mph and dust was not an issue being specifically evaluated during the inspection. The closest residences to the mine and the ash and coal waste piles/impoundments are located to the north and southwest. The closest residence is approximately 900 feet northwest of the ash pile/impoundment and about 1100 feet from the "dry ash." Runoff water impoundments are located on the part of the pile nearest that residence. A topsoil stockpile and offsite runoff diversion channel is located between the residence and ash pile.

A request for a hydrogeologic assessment schedule and well survey within 2,500 feet of the permit boundary was submitted to the Crown III Mine on November 24, 2010. The goals of the assessment are to identify any impacts to groundwater quality at the site, determine the nature and extent of any groundwater impacts identified and identification of potential remedial alternatives for any impacts identified. Crown III committed to a well survey by February 28, 2011, and a hydrogeologic assessment schedule by April 1, 2011. The well survey was submitted March 8, 2011. The schedule for a hydrogeologic assessment was not submitted. Springfield Coal Company's has not responded to a July 15, 2011 letter from Illinois EPA requesting the submission of a completed hydrogeologic assessment by September 14, 2011. Illinois EPA is considering issuing a Violation Notice for the Springfield Coal Company's Crown III Mine Site

Springfield Coal Company's Industry Mine, McDonough & Schuyler Counties - OMM/DNR - OMM has approved Coal Combustion By-product (CCBP) utilization at the

mine site. The CCBP meets the requirements for beneficial use during reclamation to help achieve the permitted post-mining land use. The Industry Mine is inspected by OMM a minimum of once a month. Because of the large area under permit, dust has not been noted blowing from the permit area. The nearest resident lives more than one mile away from the area of coal combustion material placement. Runoff from the disposal areas is directed to the numerous sediment ponds found on the mine site. OMM has not received any complaints concerning dust for the Industry Mine.

Certain contaminant concentrations reported in the TCLP leachate analysis of the CCW may exceed the Class II groundwater standards. However, it is noted that in general, the TCLP analysis is an acid leachate test the results from which are considered to be a "worse-case" scenario since the CCW material will be maintained in an alkaline environment. Therefore, for most constituents the TCLP analysis results will provide an overstatement of actual concentrations expected to be experienced under field conditions. As these analyses overstate anticipated actual leachate concentrations, these materials are anticipated to pose no threat to the nearby water resources.

There is ~8 acre beneficial use coal CCW disposal area at this site. The exposed rock faces are reportedly sealed with compacted clay. Runoff from this area is diverted to a reclamation pond. Dust control in the areas appeared marginal during this inspection.

A ~10.4 acre OMM Permit 16 coal combustion waste CCW disposal area is also located at this site. An earthen containment berm was placed around this area. Runoff from the site needs to be contained; however, it appeared that some runoff would drain off site south of the stockpiles and along the access road. Springfield Coal Company indicated that they would provide containment for the entire disposal site.

Based on comments received during the recent public hearing held on the draft renewed NPDES permit for this facility, the applicant will be required to develop and implement an updated fugitive dust control plan. Prior to re-issuance of a renewed NPDES permit for this facility, appropriate conditions will be incorporated to address fugitive dust issues based on the good mining practices of 35 Ill. Adm. Code 406.204 and the dust control plan to be required.

A VNL was issued on 10/8/09 for an effluent violation and the case was subsequently referred to the Illinois Attorney General's Office (AGO) on 1/20/10.

BOW FOS staff conducted an inspection on 9/27/10: CCW is stockpiled on the ground in the beneficial use CCW disposal area. Local municipalities, townships, etc. typically use this material for road maintenance. The mine had a water truck for dust control (which reportedly worked well when used). This truck was not being operated during inspection.

No complaints have been received by the Peoria BOA/ FOS. This mine has a State operating permit.

A request for a hydrogeologic assessment to identify any impacts to groundwater quality at the site, a determination of the nature and extent of any groundwater impacts identified, and identification of potential remedial alternatives for any impacts identified has been requested as of July 27, 2011. In addition, the facility was asked to conduct a private well survey within 2,500 feet of the permit boundary of the mine. The Springfield Coal Company Industry Mine has committed to submit the well survey and a schedule for completing the assessment to Illinois EPA by October 3, 2011.

Peabody's Gateway Mine, Randolph County - OMM/DNR - OMM inspects the Gateway Mine at a minimum of once a month. OMM has not witnessed any problems with dust blowing off of the mine site during the inspections. Also per OMM, there have not been any citizen complaints of blowing dust from the mine.

Groundwater monitoring at the mine does not indicate that there is material damage to the hydrologic balance outside the mine permit area. A request for a hydrogeologic assessment schedule and well survey within 2,500 feet of the mine permit boundary were requested on September 28, 2011.

Based on comments received during the recent public hearing held on the draft renewed NPDES permit for this facility, the applicant will be required to develop and implement an updated fugitive dust control plan. Prior to re-issuance of a renewed NPDES permit for this facility, appropriate conditions will be incorporated to address fugitive dust issues based on the good mining practices of 35 Ill. Adm. Code 406.204 and the dust control plan to be required.

BOW FOS staff performed an inspection of this facility on April 2, 2010, and May 26, 2011. No fugitive dust was observed during the April 2, 2010, inspection. In addition, no discoloration or turbidity was noted at any permitted outfall. The final report for the May 26th inspection is pending completion.

Collinsville BOA FOS received a complaint from a resident in Coulterville in March, 2011 about odors from spontaneous fires in raw coal storage piles. FOS investigated and a NCA was sent in April, 2011. No complaints about blowing dust have been received in recent years. No VNLs have been sent in the last 5 years. The mine has a BOA State operating permit.

Alpena Vision Resources' Murdock Site, Douglas County - OMM/DNR - The Murdock mine is inspected on a monthly basis by the OMM's Land Reclamation Division. It has received a few dust complaints but onsite follow up inspections have found the site to be maintained properly.

Portions of the mine predate the current regulatory program. Topsoil was not required to be salvaged for that portion of the mine operation. The use of biosolids has been approved as an organic supplement to topsoil under the current regulations.

No mussel kill has been reported to the DNR. Groundwater monitoring has not revealed any groundwater issues at the site.

BOW staff conducted an inspection of the Murdock Mine on October 20, 2010, in response to a complaint of contaminated water around the perimeter of the permitted area. The inspection revealed no discharge or sedimentation in the receiving water from the permitted outfall. No other discharges were noted from the permitted area. Alleged water contamination was the result of independent water sampling from the facility's untreated water collection system. Reclamation of the site is ongoing with the permitted filling of Pond 5 using coal combustion by product, gypsum, and bio-solids. Intermittent carbon recovery occurs in Slurry Pond 1 with no recent activity noted. All mine drainage appeared to report to the treatment system and no fugitive dust was observed at the time of inspection.

A complaint was submitted to United States Environmental Protection Agency (U.S. EPA) about excessive dumping at the Murdock Mine and whether active permits were in place for this activity. The complaint was referred to the BOA-Champaign. BOA FOS investigated the site and spoke with Larry Harp of Old Ben Coal Company. He observed significant emissions of fugitive dust from the site and recommended Illinois EPA issue a VNL. On August 2, 2004 a VNL (A-2004-00276) was issued for violating Section 9(a) of the Illinois Environmental Protection Act (Act) for fugitive dust emissions.

On August 19, 2004 the Old Ben Coal Company provided a compliance commitment agreement (CCA) proposal to the Illinois EPA, which included the following:

1. No activities will be conducted during periods of high winds.
2. Old Ben will contact ADM to discuss possibility of mixing fly ash and bottom ash offsite before transporting to the mine.
3. Ash piles will be pushed as soon as possible or wetted with water to stabilize them against wind erosion.
4. Old Ben will have the trucks dump the loads as close to the fill area as possible to reduce fugitive dust emissions.
5. Water will continue to be applied as necessary to stabilize the ash material to prevent fugitive dust emissions.

On September 22, 2004 Illinois EPA issued an Acceptance of CCA for VN A-2004-00276.

On March 28, 2007 a complaint was received regarding uncontrolled dust emissions and odor from the Mine. BOA-Champaign, investigated the site and observed the dumping of coal ash at the site. The dust generated from the activity went well beyond the property boundary toward the town of Murdock to the northwest. In a file review, permits issued by Illinois EPA BOW for biosolids utilization, dated December 21, 2005 and February 7, 2007. A non-compliance advisory (NCA) for fugitive dust emissions was recommended. On April 10, 2007 an NCA letter was sent to Alpena Vision Resources for violating Section 9(a) of the Act for fugitive dust emissions.

On March 23-24, 2009 two related complaints about fly ash and odor were investigated by BOA-Champaign. The inspector observed several piles of biosolids, gypsum, and fly ash with no apparent dust control measures in place. BOA coordinated with DNR and DNR indicated that the odor problems were likely from humin that had recently been permitted and that they likely would not permit it in the future.

Then on March 1, 2010 a complaint was forwarded to BOA-Champaign from BOL-Champaign. The complaint was from the, Douglas County State's Attorney, who was calling to report a change in odor at the Murdock Mine and to verify that they are permitted for the activity. BOA spoke with OMM, who described the mine reclamation project and provided the contact information of the OMM inspector assigned to the Murdock Mine. In a conversation with the OMM inspector, he indicated that the project had a permit to receive and use biosolids from the Urbana-Champaign Sanitary District. He also provided contact information for, the project manager, who provided some more details of the scope and timeframe of the project. The BOA inspector called states Attorney and reported that the Murdock Mine was permitted to receive biosolids, which has been ongoing for about a year. The States Attorney had no specific contact of direct complainants for additional follow-up.

On April 19, 2010, BOL-Champaign, received another complaint and forwarded it to BOA-Champaign, however there was no contact information provided for follow-up.

More recently on August 5, 2011 Illinois EPA received a complaint about the odor from the mine, BOA-Champaign, responded to the complaint and discussed the issues with the complainant. The primary concerns are the odor and making sure that what is being dumped at the mine is not hazardous to the air and groundwater. The BOA consulted, BOL-Champaign, and, BOW-Champaign, who had both been working on a complaint about the mine. They went and discussed with the manager of the mine potential ways to limit odor emissions, specifically regarding the area to keep storm water from draining

to the stored biosolids. The moisture plus the high heat was likely causing the increase in odor. According to BOW, Alpena completed this recommended grading work. However, the complainant still smells the foul odor. BOA is currently in the process of working with the complainant, OMM, BOW, BOL, and Alpena to resolve the current complaint.