

MINING AND RECLAMATION ADVISORY BOARD

Monday, April 25, 2016

Rachel Carson State Office Building

Conference Room 105

Harrisburg, PA

Voting Members/Alternates: Robert Burns (Member – Vice-Chairperson); Cynthia Carrow (Member – on conference call); Jack Chamberlin (Member); Terry Dayton (Member); Duane Feagley (Alternate); Richard Fox (Alternate); Rachel Gleason (Alternate); Katherine Hetherington-Cunfer (Alternate); Mark Killar (Member); Darrel K. Lewis (Alternate); and David Osikowicz (Member – Chairperson)

Other Attendees: Bill Allen (DEP – Mining Programs); Tom Callaghan (DEP – Mining Programs, Director); Bruce Carl (DEP – Mining Programs); Eric Cavazza (DEP – Bureau of Abandoned Mine Reclamation (BAMR)); Laura Edinger (DEP – Policy Office); Glenn Florence (DEP – Active and Abandoned Mine Operations (AAMO)); Josie Gaskey (PA Aggregates and Concrete Association (PACA)); Jennifer Gulden (DEP – Mining Programs); Joseph Iole (DEP – Regulatory Counsel); Gerald Jackson (DEP – Abandoned Mine Reclamation); Jeffery Painter (PA Game Commission (PGC)); Shuvonna Perry (DEP – Mining Programs); Paul Pocavich (DEP – Mining Programs); Daniel E. Snowden, D.Ed. (DEP – Mining Programs; MRAB Liaison); John Stefanko (DEP – Executive Deputy Secretary for Programs/Acting Deputy Secretary – AAMO); and Christopher Yeakle (DEP – Mining Programs)

Meeting Called to Order/Introductions

Mr. Osikowicz called the meeting to order at approximately 10:05 a.m. Board members introduced themselves, as did all DEP personnel and visitors in the audience.

Approval of Minutes

The Board voted unanimously to approve the minutes from its January 21, 2016 meeting.

Correspondence

Mr. Osikowicz inquired as to whether any correspondence had been received by the Board since its last meeting. Dr. Snowden reported that no correspondence had been received during that time.

Committee Reports

There were no reports from the Policy Committee, the Regulation, Legislation and Technical Committee or, the Reclamation Committee.

Proposed Technical Guidance Document (TGD) Revision (Pre-Application Review)

Ms. Hill presented revisions to DEP Technical Guidance 563-211-214 (Coal Surface Mining Activity Permit Pre-Application Review). The revisions relate to the updates to the coal mining permit process, along with inclusion of information for non-coal mining permits. Originally, the revised

TGD was slated for presentation to all advisory boards in February 2016, with publication (draft form) and public comment to follow in April 2016 and, final publication in September 2016. However, the time frame for final publication of the revised TGD remains unknown.

Professional Licensure and Permit Review

Ms. Hill continued with a presentation about the roles of permit applicants and DEP staff regarding to Professional Engineer (PE)-licensed and Professional Geologist (PG)-licensed work, in the context of shortening permit review times. This subject relates to the request for third-party, privatization of permit reviews that have previously been suggested from industry representatives.

Ms. Hill outlined permit review responsibilities and the permitting decision process required to be undertaken by the Department under Chapter 86. She described the complexity of permit reviews for both applicants and consultants and, explained conflicts of interest regarding permit applications from consultants. She also mentioned several streamlining options for permit applications including some items that could be tailored for automatic approval, as they have standards that currently fit the regulations (i.e., erosion and sedimentation plans; general permits).

Updates

Mr. Allen provided updates to the Board regarding the coal mining program:

- **Non-Regulatory Agenda:** A variety of guidance documents and permit application types are being developed or, are under consideration, including: 1) Pre-Applications; 2) Coal Ash; 3) Civil Penalties; 4) Blaster's License Suspension; 5) Processing Completion Reports; 6) Bonding (Direct submittal of bonds); 7) Non-Coal Underground Mine Application; 8) Beneficial Use of Sewage Sludge at Active Mine Sites; 9) Surface Water Protection (Underground Bituminous Coal Mines); 10) Engineering Manual; 11) General Permit (GP) Materials; and 12) Government-Financed Construction Contracts (GFCCs).
- **National Pollutant Discharge Elimination System (NPDES) Permitting:** As of March 31, 2016, there have been 667 draft NPDES permits sent to the United States Environmental Protection Agency (US EPA) (338 of these have been issued and 21 could be issued – both with comments; nine more are pending, also with comments). There were 259 permits issued without comments, with 36 that could be issued, and four that are pending – all without comments.
- **Permit Decision Guarantee (PDG):** As of March 31, 2016, about 93% of mining permits (1,514 of 1,629) have been disposed, with the remaining 7% (115) awaiting action (41 of these are from the Pottsville District Mining Office (DMO). The other 74 are from the California DMO, with none from the other DMOs). These figures include 76 renewal applications and three bond review applications. As a whole, the permit review on-time percentages for all DMOs were as follows (Note: a discussion of this topic highlighted DEP's commitment to improving permit review efficiency through the pursuit of further online submission of permit applications, building a "guidance tool" around original permit applications and, developing a database to monitor permit application review progress – the tool for this may be up and running by February 1, 2017):
 - Knox DMO: 94.2% on-time (813 of 861 permits disposed).
 - California DMO: 86.1% on-time (997 of 1,502 permits disposed).
 - Moshannon DMO: 82.4% on-time (1,169 of 1,294 permits disposed).

- Cambria DMO: 82% on-time (1,412 of 1,633 permits disposed).
- New Stanton DMO: 76.4% on-time (651 of 867 permits disposed).
- Pottsville DMO: 63.4% on-time (924 of 1,289 permits disposed).
- **Alternative Bond System (ABS) Legacy Trust Account**: For the respective periods of January 2007, January 2011, December 2016, and March 2016, the ABS Trust Legacy Account readings were as follows:
 - January 2007: 56 agreements, with 31 bonds worth \$84.1 million; 14 fully-funded trusts worth \$38.6 million; and 11 partially-funded trusts worth \$39 million.
 - January 2011: 107 agreements, with 64 bonds worth \$192 million; 30 fully-funded trusts worth \$52.5 million (down from the expected \$69.1 million) and 10 partially-funded trusts (with 3 additional ABS sites) worth \$18.5 million (down from the expected \$52.8 million).
 - December 2015: 132 agreements, with 75 bonds worth \$226.2 million; 44 fully-funded trusts worth \$72.9 million (down from the expected \$82.6 million), and 11 partially-funded trusts (with 2 additional ABS sites) worth \$62.2 million (down from the expected \$124 million).
 - March 2016: 132 agreements, with 75 bonds worth \$237 million, 44 fully-funded trusts worth \$74.7 million (down from the expected \$82.6 million), and 11 partially-funded trusts (with 2 additional ABS sites) worth \$65.2 million (down from the expected \$124.5 million).
- **Land Reclamation Financial Guarantees (LRFG)**: Presently, there are 99 LRFG Operators (up from 89 previously) worth \$265,000.00 on average (maximum value: \$2.6 million) and 159 LRFG permits (up from 143 previously) worth \$165,278.00 on average (maximum value: \$2.1 million).
- **Reclamation Fee Account**:
 - Revenue from the 1st Quarter of 2016: During the period of January-March 2016, a total of \$33,200.00 was collected in Coal Civil Penalties and a total of \$2,836.46 was collected in Interest. To date, the total collected in Coal Civil Penalties stands at \$156,767.00 (5% of this total was transferred to the Environmental Education Fund, making the figure stand at \$148,928.65) and the total collected for Interest was \$6,168.23.
 - Additional Revenue: The Reclamation Fee also gained revenue from previous interest (\$51,028.25 – transferred in August 2015) and an additional \$25,298.87 has been collected to date. Also, for the first quarter of 2016 (January-March), the Reclamation Fee received \$10,300.00 in other source revenue.
 - Account Status: The balance of the Reclamation Fee Account stands at \$3,066,950.84 (as of April 5, 2016). In Fiscal Year (FY) 2015-2016, total expenditures from the account stand at \$421,059.14, with projected expenditures for FY 2016-2015 to total \$941,785.00.
 - Federal Lawsuit Update: Mr. Callaghan reported that settlement discussions were underway regarding the final resolution of the Alternative Bonding System (ABS) program suit filed by the PA Sportsmen's Federation.
- **Regulatory Packages**:
 - Remining (Subchapters F and G): These are planned for consideration by the Environmental Quality Board (EQB) on May 17, 2016, as a final rulemaking. The regulations could take effect in 2016, after final approval.
 - Office of Surface Mining (OSM) Program Consistency: This is still under review and development.

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- *Chapters 210 (Blaster's Licenses) and 211 (Explosives): This regulatory package will be revised, due to comments from the public and from the Independent Regulatory Review Commission (IRRC). The final rulemaking package may be presented before the Board at its July 21, 2016 meeting and at the October EQB meeting.*
- **Coal Fees Revenue:** The income received from Coal Fees for the following Fiscal Year (FY) periods was as follows: FY 2012-2013 (\$54,417.00), FY 2013-2014 (\$166,110.00), FY 2014-2015 (\$100,962.43) and FY 2015-2106 (to date, through March 2016: \$136,685.24).
- **Clean Water Fund (CWF) Mining Fee Revenue (Coal and Non-Coal):** The income received from CWF Mining Fees for the following FY periods was as follows: FY 2012-2013 (\$247,800.00), FY 2013-2014 (\$523,296.00), FY 2014-2015 (\$474,729.00), and FY 2015-2016 (to date, through March 2016: \$552,725.00).

Bond Rate Guidelines

Mr. Carl reported on the 2016 bonding rates for land reclamation on coal mining operations. The most recent rates became effective on April 5, 2016. The activities and elements related to these bonding rates included the following:

- **Mobilization/Demobilization:** the lesser of \$40,000.00/job or 4% of direct costs.
- **Erosion and Sedimentation Control (Temporary Installation):** 5% of direct costs.
- **Pond Removal (Active Phase):** \$3,800.00/pond.
- **Stage 3 Maintenance Bond (Non-Cropland Areas):** \$100/acre.
- **Stage 3 Maintenance Bond (Cropland Areas – Pastureland or Hay, excluding seed costs):** \$500.00/acre.
- **Stage 3 Maintenance Bond (Cropland Areas – Row Crops, with seed costs):** \$800.00/acre.
- **Stage 3 Mobilization:** \$2,500.00/job.
- **Pond Removal (Stage 3):** \$.90/cubic yard (embankment volume plus top soiling and revegetation costs for disturbed area).
- **Ditch Removal (Stage 3):** \$.75/lineal foot.
- **Equipment Tire Removal and Disposal:** \$300.00/tire.
- **Structure Demolition:** costs based on construction industry's latest annual costs publications (e.g., *Means Building Construction Cost Data*).
- **Grading (< 500-foot Push):** \$.90/cubic yard.
- **Grading > 500-foot Push/Haul:** \$1.50/cubic yard.
- **Selective Grading:** \$1,700.00/acre.
- **Revegetation:** \$1,900.00/acre.
- **Tree Planting:** \$.75/tree.
- **Ditch Excavation:** \$6.25/cubic yard.
- **Jute Matting:** \$3.80/square yard.
- **High Velocity Erosion Control:** \$3.80/square yard.
- **AASHTO No. 1 Stone:** \$29.00/ton.
- **AASHTO No. 57 Stone:** \$33.00/ton.
- **R3 Rock Lining:** \$38.00/square yard.
- **R4 Rock Lining and R5 Rock Lining:** \$27.00/square yard.
- **Geotextile/Filter Fabric:** \$2.50/square yard.
- **PVC Lining:** \$12.00/square yard.

- **Subsurface Drain:** \$20.00/lineal foot.

Mr. Carl added that for the calculation of 2017 bond rates, six projects were awarded. One of these projects has 380,000 cubic yards to reclaim and \$.80/cubic yard came in as the low bid. He also mentioned that four projects were forthcoming for May bids (two of these are large operations) with 2 million cubic yards and 153 acres for seeding.

Bureau of Abandoned Mine Reclamation (BAMR) and Abandoned Mine Lands (AML) Grant Funding Status Reports

Mr. Jackson provided an update on BAMR projects that were completed, active, or involve future construction. During the 2015 calendar year, BAMR completed 42 projects to reclaim 532.8 acres of mined lands at a cost of \$24,838,215.00. The funding for these projects came from: Collected Bonds (\$22,643,819.00); Acid Mine Drainage (AMD) Set-Asides (\$2,644,885.00); Collected Bonds (\$7,263.00) and Growing Greener grants (\$1,199,592.00). During the 2016 calendar year, BAMR completed 1 project to reclaim 11 acres of mined lands at a cost of \$165,253.00. Much of the funding for this project came from Title IV monies (\$158,700.00).

BAMR currently has 31 project contracts to reclaim 1,146.4 acres of mined lands at a cost of \$62,152,108.00. The funding for these projects comes from Title IV monies (\$51,440,386.00); AMD Set-Asides (\$4,612,720.00); and Growing Greener grants (\$1,099,000.00). Lastly, BAMR has 95 future project contracts to reclaim 2,644.3 acres of mined lands at a cost of \$87,898,431.00. The funding for these projects will come from Title IV monies (\$87,307,931.00); AMD Set-Asides (\$500,000.00); and Collected Bonds (\$90,500.00).

Mr. Cavazza provided an update on the status of the Federal Omnibus Budget Bill and the AML Economic Revitalization Pilot Program, which provides \$30 million each to the following States: Pennsylvania, West Virginia and Kentucky – all for reclaiming abandoned mine lands, with a community/economic development component in these same areas. Mr. Cavazza reported that these monies were to be released 60 days after the bill was passed in December, but as of this date, the funds have not been made available to PA or the other two AML Pilot states. BAMR had met with OSM to determine what types of projects could be funded, per guidance from both OSM and the Treasury Department. Further, he mentioned that no guidelines for spending the AML Pilot funding have been set, as the matter is being reviewed on Capitol Hill and at the White House.

Mr. Cavazza also reported that OSM wants to see a list of potential projects from Pennsylvania (this list has been submitted to OSM) and that BAMR is still working with OSM to determine criteria for this pilot program. Mr. Cavazza also stated that Pennsylvania submitted fourteen projects for review by OSM, with eight of these projects being located in the bituminous region (western Pennsylvania) and six of these projects occurring in the anthracite region (eastern Pennsylvania). These projects include diverse and varied benefits such as AMD treatment; addressing an underground mine fire; surface mine restoration; trail development; a micro hydro-electric project using treated AMD; replacement of mine-impacted water supplies; reintroduction of the American Chestnut; and geothermal power development. When completed, these projects could leverage significant other sources of AML/AMD funding.

Reclamation and Remining Incentives Report (2015)

Mr. Yeakle shared the 2015 Reclamation and Remining Incentives report with the Board. He mentioned the various mine land reclamation programs covered in the report, along with their 2015 results:

- **Government Financed Reclamation and Construction Contracts (GFCCs):** Since 1996, there have been 2,984.7 surface acres reclaimed and 222.4 underground acres reclaimed, for a total reclamation value of almost \$19.7 million. In 2015, 10 companies had 11 projects under the GFCC program, with \$270,750.00 in reclamation value.
- **Remining Operator's Assistance Program (ROAP):** In 2015, there were 2.2 ROAP abandoned mine land (AML) surface acres reclaimed and 335.4 ROAP AML surface acres reclaimed overall. The goal is to have 1,923.4 ROAP AML acres reclaimed, at a cost of \$800,971.00 and an overall value of \$18.3 million.
- **Remining Financial Guarantees to Ensure Reclamation:** Since 1996, 3,865.9 AML surface acres have been completed. The number of deep mine AML acres reclaimed is not available in the database; however the records show that 20.4 deep mine AML acres were reclaimed in 2015. A total of 140 operators and 737 financial guarantees have been issued since the program began, with an overall reclamation value of \$24,431,140.00.
- **Reclamation Bond Credits:** To date, 50.1 acres reclaimed, with six projects completed and one project still in progress. The overall reclamation value of these projects is \$553,239.00.
- **Remining Financial Assurance Fund (RFAF):** An amount of \$10,218,101 was designated to financially assure reclamation obligations on mining permits with approved remining areas. Fourteen permits have been forfeited, with a total of 22 financial guarantees to date; eleven permits have completed reclamation without using RFAF monies and 3 permits require reclamation, with \$218,859.00 in RFAF monies obligated to assure reclamation of these permits.

Mr. Yeakle requested that the Board provide comments on the 2015 Reclamation and Remining Incentives Report to his attention by May 23, 2016.

Board Field Trip (July 20, 2016): Flight 93 AMD Treatment Facility and Other Sites

Mr. Allen gave a presentation (provided by the Cambria District Mining Office) about the Flight 93 AMD Treatment facility, which is one of several AMD treatment facilities that the Board will visit during its field trip (July 20, 2016, just prior to the Board meeting, on July 21, 2016). The Flight 93 AMD Treatment Facility has engineered wetlands to filter iron and manganese, via a pump well that was drilled into old mine workings to dewater a mine pool to prevent any discharge near the Flight 93 impact site. The treatment system also contains a venturi oxidizer system (4 units) at the inlet, 12 settling basins (pond units) and, a final outfall area where treated AMD water is discharged. The AMD treatment used at this facility is passive, and although it used lime to treat high iron concentrations, it currently does not employ any chemical treatment.

The treatment involves: 1) *oxidizing 40 mg/l iron and then settling out the iron precipitate*; and 2) *oxidizing 10 mg/l manganese*. Both metals are treated via the Engineered Wetland, which employs separate oxidizing beds for each metal. Electricity is the main cost for the facility, at \$56,000.00/year, along with \$12,000.00/year in labor costs.

At the beginning, the deep mine (AMD) water flow is at 775 gallons per minute (gpm), with a pH of 6.8 standard units and an alkalinity of 230 mg/l. Iron concentrations are at 40 mg/l and manganese concentrations are at 10 mg/l at this initial entry point. The venturi oxidizer system adds oxygen to the well water pumped from the deep mine to oxidize iron. From here, the AMD water flows to the

settling basins via an aeration ditch line. Next, the Engineered Wetland treats residual iron and manganese (the wetland was designed with a forebay, an outbay and, level lip spreaders, all of which allow for the 775 gpm AMD water flow to become even across the entire 1.5 acre area of the wetland). Previously, there were problems with constructing the Engineered Wetland; these were related to: 1) the area had a large width with a low edge – this allowed for water accumulation; and 2) deeper water retarded the vegetation growth in the wetland. To address these issues, the level-lip rock spreaders were incorporated into the construction of the Engineered Wetland. This allowed for the AMD water flow to be distributed more evenly.

The Engineered Wetland performs well for the Flight 93 AMD Treatment Facility. With the same 775 gpm AMD water flow, the treatment increases the pre-outflow pH to 8 standard units and slightly decreases the alkalinity to 155 mg/l. The iron and manganese readings are reduced to 1.4 mg/l (this reading has been reduced further, to 0.7 mg/l, due to improved performance of the wetland) and 6.2 mg/l, respectively. The manganese receives further treatment from the settling basins, via a series of trenches to spread out the flow more evenly. At final outfall, the AMD flow remains at gpm, with a pH of 7.9 standard units and alkalinity of 145 mg/l. The final outfall readings for iron and manganese are 0.2 mg/l and 0.9 mg/l, respectively. When iron (and to a lesser extent, manganese) are oxidized in the AMD treatment system, the AMD water changes color to reflect oxidizing and settling conditions.

Coal Fees - Board Recommendations

Mr. Stefanko engaged Board members in a discussion regarding the proposed increases in coal fees. The regulatory package for coal fees was developed and shared with the Board and it was revised to address the Board's previous comments in its March 1, 2016 letter to DEP Secretary John Quigley. The coal fees are proposed to rise to cover program costs currently funded from the General Fund and Special Funds. The increase is proposed to be phased from 2018 to 2024.

Overall, the Board had concerns with the annual administration fees, as well as the phase-in period and the percentages of fee increases. As such, it was then decided that the Board's RLT Committee will hold a meeting in Harrisburg on June 16, 2016, at 10:00 a.m., to develop recommendations on the proposed coal permit application fees; these recommendations will be shared with the Board at its next full meeting on July 21, 2016, at the Cambria District Mining Office in Ebensburg.

Open Time

No questions or comments from the audience were received.

Adjournment/Next Meeting

The Board adjourned its meeting at 12:45 p.m. The Board will hold its next meeting on July 21, 2016, at the Cambria District Mining Office in Ebensburg. This meeting will occur on the day after the July 20, 2016 field trip involving the Flight 93 AMD Treatment Facility and other nearby AMD treatment sites under the jurisdiction of the Cambria District Mining Office. The Board's RLT Committee will meet on June 16th, 2016 at 10:00 a.m., in Harrisburg, to develop a position paper on the proposed coal permit application fees, which will be shared with the full Board at its July 21, 2016 meeting.