Peabody Arclar Mining, L.L.C.
Rocky Branch Mine

National Pollutant Discharge Elimination System (NPDES) Permit

Responsiveness Summary

Regarding

February 18, 2014 Public Hearing

Illinois Environmental Protection Agency
Office of Community Relations
May 14, 2014

Peabody Arclar Mining, L.L.C.
Rocky Branch Mine
Saline County

National Pollutant Discharge Elimination System (NPDES) Permit Responsiveness Summary

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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AGENCY PERMIT DECISION

On May 14, 2014, the Illinois Environmental Protection Agency (Illinois EPA or IEPA or Agency) issued the New NPDES permit for Peabody Arclar Mining, LLC, Rocky Branch Mine.

February 18, 2014 PUBLIC HEARING

Hearing Officer Dean Studer opened the hearing February 18, 2014, at 5:00 p.m. at the Harris-Pruett Community Building, 107 East Church Street, Harrisburg, Illinois.

Illinois EPA presentation:

> Illinois EPA staff did not give an opening statement, due to the time constraints for the hearing and the Agency wanted to have as much time as possible for members of the public to be able to make comments.

Permit Applicant presentation:

> John Keller, Peabody Arclar Mining, LLC, Operations Manager at Cottage Grove Mine.

NPDES Hearing Panel:

> Larry Crislip (Mine Pollution Control, Manager)
> Stefanie Diers (Division of Legal Counsel)
> Brian Koch (Bureau of Water, Water Quality Standards)

Hearing Officer Dean Studer closed the hearing at 7:15 p.m. on February 18, 2014.

Illinois EPA personnel were available before, during, and after the hearing to meet with elected officials, news media and concerned citizens.

Approximately 95 persons participated at and/or attended the hearing. These individuals represented: concerned citizens, Justice for Rocky Branch, The Illinois Chapter of the Sierra Club, Prairie Rivers Network, Peabody Arclar Mining, LLC, and the Vinyard Indian Settlement.

Several members of the media were also present at the hearings, including Southern Illinoisan, WPSD-TV, the Harrisburg Daily Register and Disclosure News-Magazine.

A court reporter prepared a transcript of the public hearing which was posted on the Illinois EPA website on March 4, 2014.

The hearing record remained opened through March 19, 2014.

BACKGROUND OF ROCKY BRANCH MINE

The IEPA Bureau of Water prepared a New National Pollutant Discharge Elimination System (NPDES) permit for Peabody Arclar Mining, L.L.C., whose address is 7100 Eagle Crest Boulevard, Suite 100, Evansville, IN. 47715-8152. The Rocky Branch Mine facility is located in Saline County, approximately 1 mile west of Equality, Illinois.

The applicant proposes a new surface coal mine (SIC 1221). Mine operations result in the discharge of alkaline mine drainage. Application is made for eight (8) new discharges which are located in Saline County, Illinois.

The stream segment ATZB of Rocky Branch receiving the flow from the unnamed tributary into which Outfalls 001, 002, 008, 009 and 011 discharges is not on the 2012 303(d) list of impaired waters.

The stream segment of Cockerel Branch receiving discharges from the unnamed tributary into which Outfall 004 discharges has not been assessed by the Agency.

The Field Pond (23W-9) which receives discharges from Outfall 005 has not been assessed by the Agency.

As Outfall 003 is an internal discharge directly to Pond 002, receiving stream segment and 303d listing is not applicable

Approximately 8.8 million tons of recoverable coal are within the multiple seam mine. Proposed mining within Pit 1 would require the establishment of seven NPDES outfalls. All of the outfalls are expected to contact coal either by receiving runoff from actively mined areas, receiving runoff from coal preparation and stockpile areas, or from receiving pit pumpage that may contact coal cleanings. Stormwater runoff from 800 acres of land would be routed through sediment basins and NPDES permitted outfalls.

PRE-HEARING PUBLIC OUTREACH

The NPDES hearing notice was published in the *Harrisburg Daily Register* on December 30, 2013 and January 6 and 13, 2014.

The hearing notice was mailed or e-mailed to: Saline County officials; Municipalities of Harrisburg and Equality; Members of the General Assembly from the legislative district in which the facility is located; Saline County State's Attorney offices; Agency hearing notification list; Hearing requestors; Illinois Department of Natural Resources Office of Mines and Minerals (IDNR/OMM).

Hearing notices were posted at the Illinois EPA headquarters in Springfield and in the Marion Regional Office.

Comments, Questions and Concerns in regular text.
Agency responses in bold text.

Responses to Comments, Questions, and Concerns

NPDES Permit

1. What emergency plan does Peabody have in place to notify the local residents and citizens of the community in the event of a major pollution act similar to what occurred in West Virginia?

   The Rocky Branch Mine will have no coal preparation facilities at which chemicals similar to those involved in the West Virginia chemical spill would be located. Therefore, there will be no potential for a chemical spill at the Rocky Branch Mine similar to that which occurred in West Virginia.

   The only waste material to be disposed at this facility will be reject material from the coal crushing operation. This waste material will be disposed within the active mining pit and covered with a minimum of 10 feet of non-toxic, non-combustible material. There is no fine coal refuse (slurry) disposal impoundment or coarse refuse embankment proposed at this surface mine facility. Therefore, there will be no environmental threat from such sources.

   It is noted that the NPDES permit requires the Agency be notified in the event of an emergency at the facility. Such notification is required in accordance with Condition No. 5 of Construction Authorization No. 5365-13 which states:

   > **"The permit holder shall notify the Environmental Protection Agency immediately of an emergency at the mine or mine refuse area which causes or threatens to cause a sudden discharge of contaminants into the waters of Illinois and shall immediately undertake necessary corrective measures as required by 35 Ill. Adm. Code 405.111."**

2. The mine proposes to contain and treat the water before it enters in to nearby bodies of water. Water will regularly be discharged from the mine. This discharged water has the potential to pollute large areas surrounding the mine permit area. Acid neutralizing methods may be employed. These will require regular maintenance and monitoring for many years to come. Heavy metals will not be removed from the water discharged. It will be allowed to flow downstream into the Saline River eventually reaching the Ohio River. The Ohio River is a major source of drinking water for hundreds of thousands of people. Do we simply ignore the fact that they to will be impacted by this new proposed mine?

The only refuse material approved for disposal at this surface mine facility is the reject from the coal crushing operation. As this material will be placed within the active mining pit and covered with a minimum of 10 ft. of material, there will not be sufficient time for oxidation of this material to occur. Therefore, generation of acid runoff or acidic conditions which would require acid neutralization is not anticipated.

All NPDES permit limitations have been established based on the more restrictive of either the water quality standards of 35 Ill. Adm. Code 302.208 or the technology based effluent limitations of 35 Ill. Adm. Code 406.106. By establishing the permit limits in this manner, the permit insures that the water quality standards in the receiving streams will be met and therefore protective of the receiving stream water quality for downstream users.

3. The Illinois Clean Water Act clearly prohibits the discharge of this polluted water into larger bodies of water used for recreation and/or drinking water. Will the Illinois EPA allow this to become someone else's problem?

   The receiving streams for the discharges from this facility have been determined to be General Use waters rather than Public Water Supply sources.

   Please refer to the response to Item No. 2 above regarding the protection of these general use waters.

4. The Illinois EPA has an opportunity to prevent this pollution before it has a chance to cause disastrous results. Prevention is always better than remediation. Laws are already on the books to address these concerns. These are tools that the Illinois EPA can use today to protect our community and its future, if they choose to use the laws they are expected to uphold. Why then does the Illinois EPA essential ignore the laws in favor of the surface mine operators at the expense of the local communities and the tax payers of Illinois?

   The Agency has consistently applied the applicable laws, rules and/or regulations in drafting and issuing this NPDES permit.

   The NPDES permit for the Rocky Branch Mine was drafted with consideration and incorporation of applicable requirements from:

   a. Title 35: Subtitle C: Water Pollution relative to general use water quality standards;
   b. Title 35: Subtitle D: Mine Related Water Pollution for technology based effluent limitations, good mining practices, general mining activities, erosion control, etc.
   c. Title 35: Subtitle G: Waste Disposal with respect to liner requirements for groundwater protection.
   d. Illinois Environmental Protection Act (415 ILCS 5/1); and

e. 40 CFR Part 434

By utilizing the above set of regulations for development of the NPDES permit, this permit is sufficiently sound to protect the receiving stream water quality and local shallow groundwater resources as well as surrounding areas and nearby communities.

5. The greatest water pollution will occur several years after the mining operations have ceased as the naturally occurring pyrite decays, releasing acids, that will in turn dissolve heavy metal toxins. How long will those remediation processes be in place? Are there long term (10, 20, 50) year plans in place?

   As discussed in the response to Item No. 2 above, the only refuse material (potentially pyritic material) approved for disposal at this surface mine facility is the reject from the coal crushing operation. As this material will be placed in the active mining pit, well below the surrounding surface elevation, and covered with a minimum of 10 ft. of material, oxidation of this material will be prevented. This mining procedure will insure that no acid water or water containing elevated metals concentrations will be discharged from the site in either the near or long term.

6. How will Peabody Arclar insure that they will have the financial ability to pay for any remediation required in the future? If Peabody Arclar is not responsible for any long term remediation who will be? The state and the taxpayers?

   All coal mining operations are required by IDNR/OMM to post a surety bond to insure that sufficient funds are in place to cover reclamation and/or remediation activities in the event of insolvency or other financial hardships on the part of the Permittee. As the surety bond requirement and amount is determined by IDNR/OMM, questions regarding bonding requirements should be directed to that Agency.

7. Has a baseline flooding characterization and evaluated potential impacts of proposed mining operations (pollutant release, change in drainage and runoff patterns, etc) during times of high rainfall been completed by the Agency?

   Map No. 6A, Sediment Basin Drainage Area Map, which depicts the floodprone area in the vicinity of the proposed mining operation was included in the original permit application, IEPA Log No. 5365-13. As depicted, all sedimentation basins proposed at this mining operation will be located outside the limits of the floodprone area with the exception of Sedimentation Basin 002 and an upstream cell identified as Basin 003. This depiction would indicate that floodwaters during an extreme precipitation event may backflow through the basin outlet structure and enter the sedimentation basin. Since this backflow would be entering the basin and not considered a discharge from the basin to Waters of the State, the permit

limits would not be applicable. However, as receiving stream floodwaters begin to recede, backwater (floodwaters) within the sedimentation basin will begin to exit the pond which would be considered a discharge to Waters of the State and thus subject to the applicable NPDES permit limits.

Also, see response to Item No. 12 below.

8. The mine permit application states acid toxic produced materials found just above the coal layer and, in fact, in the materials that were submitted to DNR that are now being asked to be modified, it turns out that some of the coal layers will be treated as overburden and not hauled off to be burned somewhere. So if you have both acid and toxic material that's laying over the coal layer and coal itself that's going to be treated as overburden stored on the site, I would like to know what sort of analysis has been done to determine how much pollution is going to be coming off of it and how should that be handled, how can it be handled so water quality standards are met??

   To determine whether sufficient neutralizing material (CaCO3) is present in the overburden to compensate for any potentially toxic or acid producing material, an acid-base accounting analysis is required to be performed by IDNR/OMM. Revised information regarding the acid-base accounting of the overburden material to consider the coal layers that may not be mined and therefore be treated as overburden is contained in the Applicant's responses to the IDNR/OMM modification letter, Item No. 20. These responses are contained in the IDNR/OMM Written Findings which are identified as IEPA Log No. 5365 13 D in the NPDES permit record.

   As indicated in the response to Item No. 20 of the OMM modification letter, the ratio of neutralization potential to acid production potential is 4.16:1. Basically, there is approximately 4 times more neutralization potential present than is needed to insure against acid generation in the overburden.

   For clarification it is noted that the overburden material discussed herein will be located subsurface, beneath approximately 48 inches of soil material (root media and topsoil). Therefore, this overburden material will have no potential impact on surface water quality as the material will not be exposed to weathering or contact with surface runoff.

9. We respectfully point out that there are grave concerns that this mine will not only not meet regulations during its operation, but afterwards there are serious risks to the community for the long-term. And in reference to that I would like to refer to a letter, which I'll hand in shortly as my first exhibit. This is the January 31, 2014, letter from Illinois Department of Natural Resources to Mr. West at Peabody. This is a list of modifications and I raised a few points for IEPA's consideration because they directly relate to the NPDES pollution elimination system. It talks about on page two

that a number of values have the wrong corrections for slope and erosion and there are other comments in here, which I've circled, about locations of the stock piles for soil and that they are at risk of adding sediment overloads. The question, if IEPA will look closely, please, at this mine's potential for adding great amounts of sediment to the already polluted levels in these area streams.

The referenced issue "on Page 2" appears to be Item No. 8 contained in the OMM modification letter which is identified as IEPA Log No. 5365-13-D in the NPDES permit record. This review letter item relates to "Pre-mining" soils information contained in Attachment II(6) of the application which presents soil survey information from the US Department of Agriculture, Soil Conservation Service. Although, the Applicant has provided the corrected and/or revised information as requested by IDNR/OMM, this information is not solely the information utilized for sedimentation basin designs and/or sediment loading determinations. Additional information regarding slope and erosion potential utilized for sedimentation basin designs is typically obtained from topographic mapping of the area and engineering soil mechanics information (particle size distributions, etc.). Therefore, the revisions/corrections requested to the information contained in Attachment II(6) does not adversely impact the sedimentation basin designs.

The issue of soil stockpile location appears to be Item No. 69 contained in the OMM modification letter. The Applicant originally proposed the berm separating Offsite Drainage Ditch OFD 001 from affected area Drainage Ditch CDD 002F to be constructed of topsoil material. Item No. 69 of the OMM modification review letter indicated that topsoil placed at this location may be subject to erosion and soil loss; and therefore, a more suitable material such as subsoil should be utilized to construct the berm separating the two drainage control structures. As required, the Applicant has revised the proposed operation to construct the berm utilizing the more suitable and stable subsoil material. This change in material use will have a positive impact on the sedimentation control system; however, will not affect the NPDES permit or applicable permit limits.

10. On page seven, number 38 of this same letter from IDNR, it talks about several pond designs, and I'll leave this for your reference, but I just want to read to point out that serious concerns in this current NPDES application there's an instance in here where it appears that one of the culverts is going to allow the head waters to over top roads. Another section at question 40 on page eight talks about rainfall depth utilized for the two-year six hour storm event is incorrect. And it talks about the diversion of concern. May I please ask Illinois EPA will you be checking rainfall calculations supplied by the mine?

Item No. 38 of the OMM modification review letter cited several culvert designs for haulage and access roads that when compared to the roadway profiles appeared to indicate overtopping of the roadway during the design storm

event. The Applicant has corrected the roadway profile drawings and/or revised the SEDCAD models to correct flowline elevations, etc., thus eliminating the indication that the access and/or haulage roads may overtop. The revised and/or corrected information provided in response to Item No. 38 of the OMM modification review letter does not affect the NPDES permit as drafted.

Item No. 40 of the OMM modification indicates that the Applicant utilized the incorrect rainfall depth for the design of several cited drainage control structures. The original application contained drainage control structure (ditch) designs based on the runoff from the 2 year, 6 hour, precipitation event of 2.45 inches. The Applicant has appropriately revised the drainage control structure designs to depict adequate capacity in the cited drainage control structures to convey the runoff from the correct rainfall depth of 2.73 inches. Since appropriate sedimentation basin designs have been provided to demonstrate the basins' ability to control and treat the runoff from a 10 year, 24 hour precipitation event of 5.21 inches, the revised temporary drainage control structure designs required in accordance with Item No. 40 of the OMM modification review letter do not affect the NPDES permit as drafted.

11. Another reference to concerns for this specific NPDES is on page ten, number 49. Talks about complaints or concerns with permanent stream restoration. Calculations. There are eight listings here where I quote it says, The vegetative channel lightning cannot support the flow velocity. That means if the flow velocity cannot be supported in these different areas across the NPDES site, these eight places will not support containment of the water as referred before, this mine is going to make the area drain faster. You've heard about local flooding concerns, road flooding, water problems. This is a very serious situation. This area should not be inflicted to become one big major flooded area driving out the local citizens, driving out their farms, costing people more time and money and health issues with a very, very destroyed and hurt environment.

Item No. 49 of the OMM modification review letter cites locations within the permanent stream restoration channel where design flow velocities exceed the limiting velocity of 5.0 ft./sec. for a vegetated channel. As proposed, stream restoration enhancement or velocity (energy) dissipation features will be constructed in areas where erosive velocities may be encountered. These energy dissipation structures will be installed to protect against channel and stream bank erosion and/or to assist in minimizing or reducing flow velocities to less than erosive levels. The energy dissipation features to be employed include, but may not necessarily be limited to, riffle-pool sequences, rock or log vanes, j-hooks, rock weirs, cross vanes, etc. These various stream restoration enhancement and protection features are proven measures that have been demonstrated to protect stream restoration projects from channel and stream bank erosion.

12. What additional requirements, if any, does Illinois EPA place on mines that flood? For example, how do you expect sedimentations to work during flooding?

A Sediment Basin Drainage Area Map was provided in the original Rocky Branch Mine OMM Permit No. 428 application (IEPA Log No. 5365-13) that delineated the 100 year floodprone area. This map indicates that all sedimentation basins with the exception of Basin 002, Cell A and Basin 003 are outside the 100 year floodprone area.

Whenever possible sedimentation basins are located outside of potential floodprone areas; however, this is not always possible. In such situations, during extreme precipitation events, flood backwater from the receiving stream may enter the sedimentation basin as may be the case with Sedimentation Basin 002, Cell A at the Rock Branch facility. At times that floodwater may be entering the sedimentation basin, an offsite discharge will not be occurring; therefore, the permit limits are not applicable. However, the Permittee must be aware that as floodwaters begin to recede and the floodwater begins flowing "from" the basin, such flow is considered a discharge from the basin and is therefore subject to the applicable NPDES permit limitations.

13. What is the daily volume of mine pumpage anticipated from this mine given the high water table in this area?

Each sedimentation basin design includes a pit pumpage component of 500 GPM (720,000 GPD). It is noted that this is a negligible volume when compared to the volumes of runoff from basin watersheds experienced during design precipitation events. The Permittee has re-confirmed this original estimate of pit pumpage and that pumpage will be maintained with these basin and drainage control structure design parameters.

14. Does IEPA place additional requirements on discharges like outflow 004, when you know it's going to go into a pond like the Dumbris pond, which is downstream of that outfall? Has the IEPA evaluated the mine's impact on their use of that pond for swimming and fishing?

The NPDES permit discharge limits and monitoring requirements are based on applicable rules and regulations as referenced in the response to Item No. 2 above. As also indicated in the cited response, all NPDES permit limitations have been established to insure that the water quality standards in the receiving streams will be met, thus protecting the receiving stream water quality for downstream users.

Mercury is currently included in the Permit as a monitor only contaminant under Discharge Condition Nos. I and IV. Although the Agency does not expect to find mercury above the level of the human health water quality

standard in runoff from the mining operation, this parameter is included as a monitor only constituent in order for the Agency to collect data sufficient for an evaluation regarding the need for a permit limitation. Monitoring is required only under Discharge Condition Nos. I and IV as Mercury concentrations are anticipated to the most concentrated during such low flow conditions. That is, under precipitation driven Discharge Condition Nos. II and III, the excess runoff will provide dilution such that Mercury concentrations will not be as significant as under low flow conditions.

15. At the public hearing, numerous residents testified as to the importance of area streams, underlying groundwater and the entire watershed with its distinctive topography and network of headwater streams to supporting robust populations of wildlife, which are economically significant for the hunting and wildlife viewing opportunities they afford. The Agency cannot approve the permit application without requiring the applicant to address the existence, as well as the potential impact of the proposed mining on a legitimate existing domestic, recreational and fish and wildlife uses of the Rocky Branch, Cockerel Creek and Middle Fork of the Saline River watersheds.

    The proposed discharges from the facility would be received by water bodies that are designated as General Use waters. General Use water bodies are protected by General Use water quality standards, which are designed to protect not only aquatic life, but also wildlife and aesthetic uses, among other uses. Permit limits for outfalls associated with this facility would be regulated using General Use water quality standards. These standards, though often based on aquatic life toxicity thresholds given that aquatic biota are much more susceptible to aquatic toxicants than terrestrial biota, are also protective of recreational and wildlife uses of the watersheds associated with this permit. The Agency reviewed all information and made the determination that all existing uses of the receiving waters, including recreational and fish and wildlife uses, would be attained through the implementation of General Use water quality standard based permit limits at each outfall.

Water Quality Standards/Antidegradation Assessment

16. Has IEPA evaluated the cumulative impact from Will Scarlet mine, other mines in the area, plus what's going to be coming off of this mine and can you say that the uses of the waters can support all of that pollution coming from those cumulative effects? It appears the Agency has not evaluated past mining that has occurred in this watershed, including a close examination of reclaimed sites to evaluate the failure of past mitigation projects and mining practices such as Will Scarlet Mine to prevent serious water quality and other environmental impacts here. Illinois EPA has not demonstrated that the discharges from Outfalls 001, 002, 003, 004, 005, 008, 009 or 011 will ensure water quality standards to be met in the receiving streams.

The applicant provided the Agency with projected water quality from the proposed outfalls and existing water quality data from the proposed receiving waters. Given that the proposed outfalls would be received by water bodies that presently have no other known point source contributions, there is no upstream pollution to consider in these water bodies. However, the larger streams that these waters are tributary to receive point source contributions from other discharger and these contributions are encompassed in the surface water data that the Agency collects within these larger streams. In the instance of the proposed mine, the nearest downstream water body that has been assessed by the Agency is Segment AT-05 of the Saline River. The existing water quality of this river contains the cumulative impacts of pollution from Will Scarlet mine and other NPDES dischargers in the upstream watershed. The pollutants typically associated with mining in Illinois (chloride, iron, manganese, and sulfate) have not been found to be contributing to impairment of this stream segment. Given that the proposed mine would be regulated using water quality standard based effluent limits, continued attainment of water quality standards in this stream segment is expected. For hardness based standards (manganese and sulfate), the effluent limits applicable to the proposed mine are equivalent to or lower than the water quality standard for these parameters in Segment AT-05 given the higher hardness of this segment. All of the above information was used to determine appropriate effluent limitations to ensure that water quality standards in the immediate and downstream receiving waters are not exceeded.

17. I see that they are allowed to release mercury and everything else. Will you guys feel safe having your kids and grandkids swimming in that pond that I've got?

Effluent from each outfall would be regulated with limits set at the water quality standard, or lower, for mine-related pollutants. Although the Agency does not expect to find mercury above the level of the human health water quality standard in runoff from the mining operation, this parameter is included as a monitor only constituent in order for the Agency to collect data sufficient for an evaluation regarding the need for a permit limitation. Should mercury be detected at this outfall at concentrations that warrant a permit limit, the mercury water quality standard would be implemented as the permit limit. Water quality standards are developed to be protective of aquatic life, human health through consumption of resident fish, and human health through recreational exposure, including swimming. Given that water quality standards are applicable at each outfall, there should be no concerns in the quality of water that would exist in the pond during active mining operations.

18. On page six of the public notice fact sheet under identification and characterization of affected water body, it's listed there that Peabody has conducted some monitoring and done some chemical measurements, but I see they did not measure the alkalinity, the acidity of the water in the stream nor measure the sulfate levels,

chlorine levels hardness or mercury levels in the receiving waters. How did you determine the permit's limits for sulfate without the chloride and hardness measurements of the receiving waters?

The stream survey information provided by the Applicant was collected in order to provide a background assessment of the biological, chemical, and physical integrity of the existing water bodies. This information was not specifically collected to determine sulfate limits, therefore chloride and hardness measurements were not collected. Given the small watersheds of these streams, water quality is driven by stormwater runoff from land in its existing use (primarily agricultural). In this instance, the potential impacts of mining on stormwater runoff from these areas and, subsequently, stream water quality, was best determined by analyzing runoff from the Applicant's mine (Cottage Grove/Willow Lake mine – IL0073351) that is directly adjacent to the proposed mine. Chloride and hardness data was available given that this is a NPDES regulated mine with permit limits for sulfate and chloride and monitoring requirements for hardness. Chloride and hardness data from outfalls possessing drainage from active coal preparation and stockpile areas (Outfall 015WL) and actively mined areas with pit pumpage (Outfall 020) were used and resulted in sulfate limits of 2,000 mg/L and 1,645 mg/L, respectively. The Agency also reviewed water quality information from the nearest downstream water body assessed by the Agency, Segment AT-05 of Saline River, to verify that these sulfate limits were appropriate based on downstream water quality. Hardness and chloride data from Segment AT-05 verified that the proposed effluent limits are appropriate for this watershed.

Special condition 13 of the draft NPDES permit would require discharges from Outfall 001, 002, 004, 008, 009, and 011, and stream conditions upstream and downstream of each outfall, to be monitored and reported for discharge rate, sulfate, chloride, and hardness. Monitoring data collected throughout the first permit cycle would be utilized to recalculate sulfate limits for the renewed NPDES permit, if need be.

19. On page seven of the public notice the fact sheet. There is a section entitled purpose and social economic benefits of the proposed activity. My understanding of Illinois' anti-degradation rule is that before IEPA can issue a permit to Peabody mining they have to determine that the activity they are going to undertake is a benefit to the community at large. So my question here is why doesn't the Illinois EPA list the detriments of the proposed mining to the community in this section, also? You've listed what looks to me to be -- well, which I know is information that you received from Peabody, but we all know that noise, dust, water pollution, blasting, road closures, are all adverse impacts to the Rocky Branch community that are going to occur. Shouldn't Illinois EPA have to consider both the pros and cons to the community at large in this section?

A document dated July 12, 2012 was provided to the Agency by the Peabody Arclar Mining LLC. This document stated the Rocky Branch surface mine would provide employment for approximately 200 employees with an annual payroll of approximately $21.6 million. In 2010, the unemployment rate was 9.2% in Saline County. In 2009, 18.7% of Saline County's population was classified as living below poverty lines. This continue mining operation in Saline County would bring in tens of millions of dollars to the area by increasing the wealth of the region, generating additional value to manufacturing companies, generating additional revenue to wholesale trade companies, increasing the value of the health care sector, regional finance and insurance companies.

Additionally, the mine operation would provide additional monies in tax revenue to Saline County on an annual basis. A coal mine will result in almost $9.7 million in indirect business taxes collected by various units of Government including over $8.4 million to Illinois unit of Governments. Economic activity generated by a coal mine will result in over $875,000 in local tax revenue and $4.5 million in property taxes. The socioeconomic benefits were considered in conjunction will all other requirement of antidegradation for the Agency to determine that a lowering of water quality was allowable.

20. Does IEPA require anything more in a permit regarding chloride limits when the downstream waters are not meeting the chloride water quality standards? This is the case for the middle fork of the Saline River. So downstream waters are not meeting chloride standards.

    If a NPDES permit authorizes discharges of a pollutant to a downstream water body that is not attaining water quality standards for that pollutant, then the Agency would require permit limits at or below the water quality standard for that pollutant. The Agency is aware that the Middle Fork Saline River (Segment ATG-03) is listed in the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with chloride being listed as a potential cause. The Applicant's permit contains two mining areas identified as Pit 1 and Pit 2. Pit 2 is located in the watershed of the Middle Fork Saline River and contains three proposed outfalls (006, 007, and 010) which would be received by unnamed tributaries of the Middle Fork Saline River. Given the 303(d) listed status of this watershed and the potential of Pit 2 to convey additional chloride loadings compared to existing conditions, construction authorization for Pit 2 has not been approved. The Agency will not approve authorization of discharges from Pit 2 unless the Applicant can make a demonstration that no net increase in chloride loadings to the Middle Fork Saline River would occur from Pit 2.

21. Does IEPA fact check the analysis of the alternative treatment technologies listed here or are these answers just provided by Peabody mining?

The alternative treatment technologies summarized in the Antidegradation Assessment for this proposed permit were provided by Peabody. The onus of researching and assessing alternatives is on the Applicant, as this information is required in the permit application for any proposed increase in pollutant loading that necessitates a new, renewed, or modified NPDES permit. As required by 35 Ill. Adm. Code 302.105(c)(2)(C), the Agency uses all information, data, or reports from the Applicant as well as its own sources, and also relies on Agency experience with factually similar permitting scenarios. The Agency may "fact check" the alternatives information provided by the Applicant. In this case, this was not needed given the familiarity and working knowledge of Agency technical staff with projects of this nature.

22. Hearing after hearing we bring up treatment methods for things like chlorides and sulfates, which we know in this case of this mine that there's going to be increases in levels of those pollutants going into the streams from this mine. So my last question is what information on the use of treatment methods for sulfates and chlorides do we need to provide to Illinois EPA for you to consider them seriously? I mean what else do I need to tell you about these alternative treatment methods that I keep finding that are used in other mining operations? This permit does not fully explore or address alternatives that could be employed to reduce pollutant loading or minimize environmental degradation including using offline sedimentation basins, biological treatment in wetlands, and sulfate, chloride and other dissolved pollutant removal techniques. Examples of alternative practices and treatment that could be employed to reduce pollutant loading can be found in Attachments N-U.

Federal categorical effluent limits exist for coal mines (40 CFR Part 434), which represent the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT) as well as the best available technology economically achievable (BAT). In Illinois, the use of sedimentation basins allows the Applicant to attain these federal categorical limits. Furthermore, use of sedimentation basins allows for attainment of General Use water quality standards, which are more stringent than effluent standards and include additional parameters that would be regulated as permit limits at each outfall.

The Agency considers all information that is provided before, during, and after public hearings. The Agency is aware of alternative treatment methods that exist and may be of use in site-specific instances that merit their application. Most of the alternative practices and treatments provided in Attachments N-U are used in instances where water quality standards for dissolved substances are not being attained, thus requiring elaborate treatment. Application of alternative treatment technologies that are not technically and economically reasonable at this site, as summarized by the Antidegradation Assessment, is not warranted given that the proposed facility is expected to meet water quality standards.

A review of various treatment technologies and their potential applicability at Rocky Branch mine is provided below.

Filtration - Filtration is a water treatment process by which water is passed through a physical barrier, removing particulate matter from the water stream. Filtration of mine drainage typically involves disturbing a large area of land to install an elaborate filtration system. Dissolved solids are not filtered by this technology and only a portion of suspended solids are filtered, leaving an effluent that may not be in compliance with water quality standards. The sludge that is generated will be concentrated from the filtration and must then be disposed of as a solid or a hazardous waste in a landfill, which is time consuming and expensive. Finally, this technology requires a steady flow of water into the system, an environment not anticipated at this mine, and would require a great deal of maintenance and supervision.

Membrane Processes - In membrane processes such as reverse osmosis, water is pumped through a closed system at extremely high pressures. These membranes allow pure water to pass through while trapping contaminating ions to produce a reject stream on the membrane. This reject stream is then treated by chemical precipitation and then permanently disposed of. This technology requires extremely high-energy output and uses a large amount of water. The source water for the system must be pretreated to prevent microbial growth and mineral precipitation. This is an unnecessary step in mine drainage treatment for the Rocky Branch area. The precipitate generated from the reject stream would contain significantly higher concentrations of waste products that would need to be disposed of in a landfill. This technology also requires an enormous amount of maintenance and supervision of the equipment, both to dispose of the precipitate but also to maintain the membranes and the pumping technology. The water recovered from this process must also be post-treated. This is another unnecessary step that would require more space for equipment, energy, worker supervision and maintenance. Finally, this technology has been developed primarily for the production of potable water from seawater. Reverse osmosis is not practical for the treatment of stormwater, because there is no constant flow of stormwater through the pumping mechanism and a large storm event could overload the system, breaking the system down and halting mining activities.

Biological Treatment - Biological treatment is the process of using wetlands and other passive systems to create anaerobic and/or aerobic environments to convert sulfates, some metals and other constituents. Stormwater discharge would be pumped into, and slowly travel through, the system. For anaerobic systems, strict anaerobic conditions must be kept in order to remove sulfates. Anaerobic bacteria can utilize the sulfates converting the sulfates to sulfides, which can then be dredged from the system. One system, constructed wetlands, can be one of the least efficient treatment technologies, especially for sulfate removal. Sulfates that are removed can become concentrated in

the water and can eventually be released into the atmosphere as hydrogen sulfide and other gases. The removal of sulfates and other constituents from the stormwater would be inconsistent due to lack of a constant flow of water and due to reduced anaerobic bacteria activity in winter when air and water temperatures are low. These systems often fail throughout the life of the wetland, and have not been proven to efficiently treat mine drainage in the long-term.

Chemical Precipitation - Chemical precipitation is the process of adding alkaline chemicals to acid mine effluent to induce metals to precipitate out of water and to reduce acidity. Lime, limestone, pebble quicklime, soda ash, caustic soda and ammonia can be used treat acid mine drainage. Levels of pH, total suspended solids, iron and manganese concentrations, water flow rate, receiving stream water flow and quality, availability of electricity, the distance from the chemical addition point to the sedimentation basin and the basin's retention volume must all be taken into account before determining the best method for chemical precipitation. Each of these chemical choices possesses obstacles for implementation. The material costs of these chemicals (based on the flow rate of the water outflow areas) can be extremely high. Chemical precipitation requires constant monitoring and maintenance to ensure that the appropriate amounts of chemicals are stockpiled and used. Many of these chemicals (such as anhydrous ammonia) have safety concerns and can harm the environment if introduced. Additionally, the sludge that results from chemical precipitation must be disposed of as either solid or hazardous waste. This disposal can be difficult due to the high water content and the de-watering process of the sludge. These systems can be inundated by high volume storm events, negating the benefits of this technology and releasing precipitate into the environment. Finally, sedimentation basins, such as those that would receive drainage from the proposed mine, would perform the same functions as chemical precipitation by capturing the majority of the constituents in the outflow. Given that water quality standards are expected to be met upon discharge, chemical precipitation would be an unnecessary step that allows for greater probability of potentially hazardous waste being introduced to the environment.

Ion Exchange - Ion exchange removes unwanted ions by passing the effluent stream through a resin containing cations and later, anions. Unwanted ions are exchanged, ultimately resulting in an outflow of relatively neutral pH containing dissolved solids. This technology is more appropriate for smaller facilities and for treatment of potable water (by replacing calcium and magnesium with sodium known as the process of softening). Problems also arise regarding the degradation of the resin. Additionally, this technology requires a more abundant water supply than that provided by the Rocky Branch mine. Large amounts of energy and water are required to operate this technology while the sedimentation ponds anticipated for use at are a passive, low energy technology. Ion exchange does not remove ions from water; it

merely exchanges one ion for another, resulting in an outflow stream with no reduction in the amount of chemical components. This technology also produces a large amount of brine, water unsuitable for most purposes. This brine would also have to be disposed of properly.

Cost Effective Sulfate Removal (CESR) Process - CESR is a proprietary technology developed to improve previous sulfate removing technology. This process uses hydrated lime to precipitate gypsum, while keeping the pH at levels that do not precipitate. As a second step, the pH is raised to precipitate metals. Finally, the pH is lowered again by a proprietary reagent to precipitate ettringite. Each precipitation step is time consuming and would require the use of large areas of land. Infrastructure costs are high as well, including the installation of tanks and storage handling equipment. This technology is not feasible at Rocky Branch because this technology is still being developed. Other problems with this technology include severe scaling in heat exchange systems, clogging of reverse osmosis equipment and precipitation in pipes. The resultant precipitate would be reduced to a very large amount of sludge. This sludge would need to be disposed of in a landfill. Additionally, the water treated in this system has a high specific conductivity and a high concentration of total dissolved solids. Finally, there is a high supervision and maintenance requirement to use this technology efficiently.

22a) To what extent has the applicant assessed the possibility of increasing the volume of their sedimentation ponds? Has the applicant provided information as to the size of pond that would be required to hold all or most of the runoff from this facility?

As required, the Applicant provided design information for sedimentation basins based on the runoff from a 10 yr. – 24 hr. precipitation event plus a sediment storage volume of 0.1 ac.–ft. per disturbed acre tributary to the basin. These designs are in accordance with regulatory requirements and industry standards. It is noted that due to proposed basin geometry and site specific conditions, all sedimentation basins proposed at this facility will exceed the minimum design volumes determined in accordance with the criteria cited above.

The following design information and proposed basin volumes were provided in the application.

Sedimentation Basin	Total Design Volume (ac.-ft.)	Proposed Basin Volume (ac.-ft.
001	15.82	18.0
002 (Cell A)	64.58	75.7

002 (Cell B)	**86.71**	**387.9 (Final Cut)**
003	**4.41**	**18.0**
004	**3.22**	**5.8**
005	**1.14**	**2.90**
008	**20.95**	**347.9 (Final Cut)**
009	**17.25**	**300.4 (Final Cut)**
011	**5.65**	**6.00**

22b) Rather than permanently destroying thousands of feet of headwater streams to create treatment works for coal mine wastewater, the applicant should consider constructing offline sedimentation ponds that are not situated within the stream corridor.

Mining operations at this facility will be conducted in compliance with 62 Ill. Adm. Code 1700-1850, which specifies a comprehensive set of environmental protection measures for the control of adverse ecological impacts resultant from surface coal mining. Included are considerations for water, acid and toxic materials, soils, landform, vegetation, etc. in both spatial and temporal capacities. As such, general protective measures for all environmental values are inherent within the regulatory program. Specific to this facility, the expanse of mining and mining related disturbances at any given point in time will be limited to that acreage necessary for conducting mining operations in compliance with the applicable land reclamation regulatory requirements.

Mining related disturbance will be initiated with construction of sediment control structures. Areas to be mined will be cleared and grubbed of vegetation where necessary. Topsoil and rooting media will be removed and directly replaced on previously mined and graded areas when possible, or stockpiled for future reclamation work. Collection ditch diversions will be built to direct affected area runoff to the receiving sediment basins. The sediment basins will be constructed as near as possible to the proposed disturbed area. The sediment basin may be impounded behind an embankment, incised in the ground, or a combination of both. The type of sediment basin depends on the topography and required volume for treatment. In the flat topography of the Rocky Branch Mine, sediment basins will typically be incised.

22c) Short of a no discharge option, using filtration is the best available technology to control suspended solids.

Rocky Branch Mine will use sedimentation ponds as the method for treating collected stormwater at the mine. The use of sedimentation ponds is standard practice in the mining industry for treating stormwater at surface mine operations. It is the most efficient and cost effective method

for reducing pollutant load in stormwater from disturbed areas. All stormwater discharged from the Rocky Branch permit area will pass through sedimentation ponds. Sedimentation ponds control the release of stormwater by retaining the influent drainage and detaining the drainage for a sufficient amount of time for the majority of the sediment to settle out in the pond and not be part of the discharged effluent water. Stormwater filters have the greatest applicability for small sites that are usually less than five acres; most notably commercial and home building sites.

23. Is there a protocol for monitoring the water quality of streams and rivers for fish and other aquatic life habitat? For agriculture? For fishing? For swimming? For the health of other wildlife? What emergency plan is in place should a major pollution event occur?

The Agency has elaborate protocols for monitoring the chemical, physical and biological health of streams and rivers. In accordance with Sections 305(b) and 303(d) of the Federal Clean Water Act (CWA), the Illinois EPA must report to the USEPA on the quality of Illinois surface water resources (Section 305b) and provide a list of those waters where their designated uses, which include agricultural, fishing, swimming, and aquatic life/wildlife use, are deemed impaired (Section 303d). To aid in making these determinations, the Illinois EPA annually collects chemical, physical, biological, habitat, and toxicity data, depending on the type of water body. Data collected from outside sources may also be considered during this process. Sampling and assessment protocols for the fulfillment of these CWA requirements are provided in the latest report, Illinois Integrated Water Quality Report and Section 303(d) List, 2014, available at (http://www.epa.state.il.us/water/tmdl/303-appendix/2014/iwq-report-surface-water.pdf)

The NPDES permit requires the Agency be notified in the event of an emergency at the facility. Such notification is required in accordance with Condition No. 5 of Construction Authorization No. 5365-13 which states:

"The permit holder shall notify the Environmental Protection Agency immediately of an emergency at the mine or mine refuse area which causes or threatens to cause a sudden discharge of contaminants into the waters of Illinois and shall immediately undertake necessary corrective measures as required by 35 Ill. Adm. Code 405.111."

In the event of a major pollution emergency, multiple state Agency's such as IEPA, Illinois Department of Natural Resources, and Illinois Emergency Management Association cooperatively assess and monitor the effects, if any, of the event on aquatic life.

24. Applicant and Agency did not conduct appropriate assessments on all receiving streams. While Peabody Arclar has conducted stream bioassessments for the headwater streams, it appears the protocol used was for wadeable streams, not headwater streams such as that provided by US EPA in Fritz, K.M., Johnson, B.R., and Walters, D.M. 2006. "Field Operations Manual for Assessing the Hydrologic Permanence and Ecological Condition of Headwater Streams." EPA/600/ R-06/126. U.S. Environmental Protection Agency, Office of Research and Development, Washington DC. (Attachment H.) The IEPA has failed to require full and appropriate characterization of the existing uses of waters of the State of Illinois which will be impacted by the proposed mining activities.

    The largest watershed for a stream that would receive discharges from this mine is 1.95 square miles, which is located below Outfall 002 at the confluence of Rocky Branch and the unnamed tributary that would receive this discharge. In southern Illinois, streams with five square miles of watershed or less are characterized as 7Q1.1 zero flow streams and are therefore expected to have at least seven days of continuous zero flow nine out of ten years. These streams have a tendency to dry to isolated pools during periods of little rainfall. Many organisms living in these streams, when water is present, are pioneering species that can move downstream, fly away, burrow into wet sediments, or alternatively, die when water disappears. The Agency has determined that all such streams will have these typical biotic communities; therefore a biological assessment of these zero 7Q1.1 flow is not typically required. Exceptions to this rule may occur if threatened or endangered species or protected natural areas are believed to be the vicinity of the area, as identified through consultation with IDNR. However, IDNR determined that no threatened or endangered species or protected natural areas are in the vicinity of the areas and EcoCAT consultation was immediately terminated.

    Despite the small size of the streams onsite, the Applicant conducted stream assessments on their own merit to characterize the conditions of these headwater streams. Sampling was conducted at seven locations throughout Rocky Branch and unnamed tributaries of the Middle Fork Saline River. The watershed areas above the sampling locations range from 0.06 – 1.4 square miles. Physical habitat assessments at each site were conducted using the Environmental Protection Agency's Rapid Bio-assessment Protocol (RBP II) for wadeable and headwater streams. Collection, processing, and analysis of fish and macroinvertebrates were conducted following Agency procedures for surveying wadeable streams. The Agency does not have biological sampling procedures geared specifically for headwater streams, but is confident that Agency collection protocols for wadable streams adequately characterize the physical and biological integrity of headwater streams.

25. The Agency cannot allow the mine to use the headwater streams on the mine site as treatment works nor allow pollutant levels in excess of General Use Water Quality Standards in these waters of the State, failing to protect the aquatic life found there.

A United States Army Corps of Engineers 404 permit and corresponding Water Quality Certification will be required to allow the filling of waters of the US resulting from the mining-through of the streams and the construction of sedimentation ponds. The filling of headwater tributaries is reviewed under the 401 Water Quality Certification program.

Regardless of the purpose of the basins, all impoundments have outfalls that are covered under the NPDES permit for the facility to ensure water quality standards are met in the receiving waters of the state.

26. Because of the inadequate characterization of proposed pollutant load increases mentioned previously in this letter, it follows that reasonable potential analyses for pollutants of concern were not completed.

    The proposed pollutant load increases associated with this proposed permit have been adequately characterized (see responses 16 and 18). In the context of a NPDES permit, a reasonable potential analysis is conducted on effluent quality to determine if permit limits are appropriate for specific parameters. A reasonable potential analysis of pollutants was not conducted for the proposed permit because chloride, iron, manganese, and sulfate permit limits (along with mercury monitoring) are always required for acid mine discharges and alkaline mine discharges with coal refuse or coal combustion waste disposal areas, regardless of the concentration that is actually present. By requiring permit limits for these parameters in mine discharges the Agency is ensuring that best management practices are always carried out by the regulated facility.

27. In the antidegradation assessment included as part of the draft permit's fact sheet, the social and economic benefits are over-stated and do not take into consideration costs that will be borne by the residents, city and county. Further, this permit would allow the discharge of pollutants into waters that ultimately are withdrawn and treated for distribution by the Saline Valley Conservancy District. These pollutants must be removed before the water can be distributed to the consumers. This places an unfair burden on SVCD ratepayers for additional stresses on existing water treatment equipment or might even necessitate the investment in upgraded and advanced water purification technologies. Ultimately, the question must be asked: How can any lowering of the quality of a public water supply be allowed? Illinois EPA must assure that "The activity that results in an increased pollutant loading will benefit the community at large."

    The Saline Valley Conservancy District withdraws and treats groundwater for public distribution. Surface water discharges from the proposed mine would not adversely impact groundwater supplies and would not provide additional

stress on existing water treatment equipment or necessitate upgraded water purification technologies for the Conservancy District.

28. The permit would also allow the discharge of harmful pollutants that have not fully been characterized including mercury and polycyclic aromatic hydrocarbons.

The Agency incorporates permit limits or monitoring conditions for pollutants that are expected to be or have the potential to be present in NPDES discharges. Mercury is currently included in the Permit as a monitor only contaminant under Discharge Condition Nos. I and IV. Although the Agency does not expect to find mercury above the level of the human health water quality standard in runoff from the mining operation, this parameter is include as a monitor only constituent in order for the Agency to collect data sufficient for an evaluation regarding the need for a permit limitation. Monitoring is required only under Discharge Condition Nos. I and IV as mercury concentrations are anticipated to the most concentrated during such low flow conditions. That is, under precipitation driven Discharge Condition Nos. II and III, the excess runoff will provide dilution such that mercury concentrations will not be as significant as under low flow conditions.

Polycyclic aromatic hydrocarbons (PAHs) are lipophilic compounds, which means that they have a greater affinity to bind to organic substances rather than water. Because of these properties, PAHs are bound to sediment and other organic materials and are not expected to be readily transported in groundwater or present in surface water discharges from this mine. Therefore, permit limits or monitoring conditions are not required for this pollutant.

29. Also, increased levels of sulfates may prove to be harmful to livestock using the receiving streams for watering.

All pollutants discharged from the proposed mine, including sulfate, would be required to meet water quality standards. The sulfate water quality standards found at 35 Ill. Adm. Code 302.208(h) have a provision that protects surface waters for livestock watering. Each NDPES outfall for the proposed mine would contain sulfate permit limits at or below the livestock water standard of 2,000 mg/L sulfate, thereby protecting the receiving waters for livestock watering.

Groundwater

30. What recourse will neighboring landowners have should their wells be polluted or further polluted, or even go dry?

    Illinois Department of Natural Resources, Office of Mines and Minerals should be contacted if a landowner believes their well has been impacted by activities at the mine. Office of Mines and Minerals will then investigate the complaint, and further actions can be required of the mine to remediate or replace a water source as needed.

31. Are there assurances that neighboring well water will not be contaminated?

    Groundwater monitoring wells will be placed at specified locations around the various portions of the mine. The purpose of these wells is to identify any groundwater impacts due to mining as soon as possible and prior to any impact that may occur to a neighboring well. If a violation is identified in any groundwater monitoring well, enforcement action may be taken to require remediation of the problem.

    In addition, see answer to question #28 above.

32. Groundwater seeps and springs have not been fully acknowledged and therefore, are not adequately protected under this permit. This is important as the sedimentation ponds will not be lined and so the pollutants running off of the mining site and collecting in the sedimentation basins have the potential to end up in the receiving streams.

    The permit requires groundwater monitoring to assure that contaminants do not move off-site in the subsurface. In addition, a clay liner will be required under the raw coal piles and nearby sedimentation basin SB003, and NPDES outfall 003. Therefore, required surface water sampling, is located between SB003 and SB002 Cell A. Springs are addressed in the OMM mining permit.

Enforcement/Compliance

33. Who should the community call upon when problems or violations occur?

    If the community or an individual has a concern with alleged violations of the Illinois EPA Environmental Protection Act, its regulations or the permit, they

should contact the Agency's Marion field office. The number is 618-993-7200.

34. Will the community as a whole be notified of the pollutants, potential pollutants and the associated risks to personal health and safety?

    The community has been notified by the publishing of the draft permit and participating in the public hearing held on February 18, 2014. Once the permit is granted, that final permit will be published on the Illinois EPA's website.

35. We have serious concerns about the violation history that's already years of noncompliance by Peabody and unsatisfactory state inspections, registered complaints, violation notices in regard to Big Ridge, Wildcat Hills, Willow Lake, Eagle River, Gateway and Lively Grove mines. There is still also an ongoing suit between Illinois Attorney General and Peabody Coal Company regarding the Saline Valley Conservancy District and I would just like to make sure that your agency is aware of all of the different complaints that remain unresolved or were resolved unsatisfactorily to the folks that are using these waters.

    Thank you for this comment and yes the Agency is aware of any enforcement action involving a coal mine brought by the Illinois Attorney General's office or referred to the Illinois Attorney General's office by the Agency or any third party lawsuit brought against a coal mine.

36. Has there ever been a permit denied a coal company on the basis of any of these hearings?

    The Agency's "Authority to Deny NPDES Permits" is identified and discussed in Section 39 of the Illinois Environmental Protection Act and under 35 Ill. Adm. Code 309.105. If such a situation arose that meets the requirements of these two sections, then the Illinois EPA could deny a permit.

37. Do we, as residents, have a right to appeal a final decision on a permit?

    Yes, you have a right to appeal the Agency's final permit decision to the Illinois Pollution Control Board. The requirements for filing a permit appeal can be found at 35 Ill. Adm. Code Part 105 Section B of the Illinois Pollution Control Board Rules.

38. When I read something about the EPA I would like for you and the news media and all here to explain to us what you see as the meaning of the word environmental and who is this to protect? This is something I have great difficulty. When I read the laws I see what is being done, I wonder, you know, who are you protecting and why? In other words, are you protecting us as a citizen? Are you

protecting the coal company? These are questions that people ask me and that's one of the reasons I stand here. I don't stand here for my own self. I stand here for that whole community, because Peabody is about to destroy not just some open country, they are about to destroy a whole community. And I told them I'm going to stand against that because it's not right. But we need somebody to explain to us who at the Environmental Protection Agency is going to protect and why.

The Agency is bound by the laws found in the Illinois Environmental Protection Act. Also, Section 39 of the Illinois Environmental Protection Act discusses the issuance of permits by the Agency.

39. Does the Illinois EPA have the authority to refer a case to the Illinois Attorney General when permit violations are found and, if so, how many times has the Illinois EPA done so in the past?

Yes, the Agency has the authority to refer an enforcement case to the Illinois Attorney General's Office pursuant to Section 31 of the Illinois Environmental Protection Act.

The total wastewater cases referred to the Illinois Attorney General's office for the years 2011, 2012, and 2013 was approximately 166 cases.

40. This mine, as all coal strip mines, will pollute local streams and well water, we know this by decades of complaints already having been lodged at the Illinois EPA for strip mines across the region. You do keep track of all of those complaints, don't you?

Please see the response to #37 above.

Other Issues

41. Dust from blasting contains carbon oxides, nitrogen oxides, heavy metals and other pollutants. This orange dust has been deemed as toxic by the USEPA, MSHA, NIOSH, OSHA, and the CDC. This dust can travel over several miles before settling on surrounding areas. Eventually this dust enters the water system. How will this be monitored and what remediation processes will be utilized for offsite, indirect pollution?

    Dust issues are handled by OMM at the Illinois Department of Natural Resources. It is the Agency's understanding that OMM generally requires an operator to include a dust control plan in their permit application to address their efforts to control dust. Also, see Section 1816.95 of the SMCRA regulations that address the stabilization of surface areas.

42. There has been no on-site Illinois EPA inspections, that is shameful as well, do you just sit in your offices and rubber stamp these permits?

    As an NPDES permit has not yet been issued for the proposed Rocky Branch Mine facility, no facilities have been constructed or developed nor has active mining been initiated. Therefore, there are no facilities or basin discharges to inspect. It is noted that a site reconnaissance visit was performed prior to the public hearing in order for the hearing panel members to become familiar with the local area, topography and relative location of proposed facilities and mining areas; however, no formal inspection report was prepared based on this reconnaissance. In the event that an NPDES permit is issued for the proposed Rocky Branch Mine facility, Agency inspections will be initiated at such time that mining activities commence.

43. What protections are in place to prevent pollution to the landscape during floods?

    Please see comments to Item Nos. 7 and 12 above.

Acronyms and Initials

CCR	Coal Combustion Residue
CCW	Coal Combustion Waste
CFR	Code of Federal Regulations
DMR	Discharge Monitoring Report
GPD	Gallons per Day
IDNR/OMM	Illinois Dept of Natural Resources/Office of Mines and Minerals
IEPA	Illinois Environmental Protection Agency
ILCS	Illinois Compiled Statutes
Ill. Adm. Code	Illinois Administrative Code
mg/L	Milligrams per liter
NPDES	National Pollutant Discharge Elimination System
pH	A Measure of Acidity or Alkalinity of a Solution
SMCRA	Surface Mining Control and Reclamation Act of 1977 (federal)
TCLP	Toxicity Characteristic Leaching Procedure (federal)
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency

DISTRIBUTION OF RESPONSIVENESS SUMMARY

An announcement, that the NPDES permit decision and accompanying responsiveness summary is available on the Agency website, was mailed to all who registered at the hearing and to all who sent in written comments. Printed copies of this responsiveness summary are available from Larry Crislip, Illinois EPA Marion Office, 618-993-7200, e-mail: <Larry.Crislip@epa.state.il.us>.

WHO TO CONTACT FOR ANSWERS TO YOUR QUESTIONS

Illinois EPA NPDES Permit:

Illinois EPA NPDES technical decisions	Larry Crislip	618-993-7200
Water quality issues	Brian Koch	217-782-3362
Groundwater issues	Amy Zimmer	217-557-3181
Legal issues	Stefanie Diers	217-782-5544
Public hearing of February 18, 2014	Dean Studer	217-558-8280

The public hearing notice, the hearing transcript, the NPDES permit and the responsiveness summary are available on the Illinois EPA website:

http://www.epa.state.il.us/public-notices/2013/npdes-notices.html#peabody-arclar-mining