



**Peabody Arclar Mining, L.L.C.
Wildcat Hills Mine –
(Cottage Grove Pit/ Wildcat UG)**

**National Pollutant Discharge Elimination
System (NPDES) Permit
Responsiveness Summary**

Regarding

September 15, 2011 Public Hearing

Illinois Environmental Protection Agency
Office of Community Relations
November 2011

Peabody Arclar Mining, L.L.C.
Wildcat Hills (Cottage Grove Pit/Wildcat UG) and Willow Lake Mine
National Pollutant Discharge Elimination System (NPDES) Permit
Responsiveness Summary

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Final November 29, 2011

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

Peabody Arclar Mining, L.L.C.
Wildcat Hills (Cottage Grove Pit/Wildcat UG) and Willow Lake Mine
Modified NPDES Permit
Permit Number IL0073351

AGENCY PERMIT DECISION

On November 29, 2011, the Illinois Environmental Protection Agency approved the modified NPDES permit for Peabody Arclar Mining, L.L.C.

The following changes were made to the draft permit:

PRE-HEARING PUBLIC OUTREACH

The notice of the NPDES permit public hearing was published in the Harrisburg *Daily Register* on July 29, August 5, and August 12, 2011.

The hearing notice was mailed or e-mailed to:

- a) adjacent land owners;
- b) Gallatin and Saline county officials;
- c) municipal officials in: Eldorado, Equality, Harrisburg and Ridgeway as well as state and federal representatives;
- d) Corps of Engineers, the IDNR Office of Mines & Minerals, and the Illinois' Attorney General; and
- e) Illinois Chapter of the Sierra Club, Prairie Rivers Network and the Environmental Law and Policy Center (hearing requestors).

The hearing notice was posted on the Illinois EPA website:

<http://www.epa.state.il.us/public-notices/npdes-notices.html#peabody-arclar-wildcat-mine>.

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

September 15, 2011 PUBLIC HEARING

Hearing Officer Dean Studer opened the hearing September 15, 2011, at 5:00 p.m. at the SIC Foundation Center, 540 North Commercial Street, in Harrisburg, Illinois.

Illinois EPA Presentation:

Iwona Ward, Permit Engineer, Mine Pollution Control Program provided a description of the proposed modifications to the NPDES permit.

Arclar Mining, L.L.C. Presentation:

Brandon Risner, Operations Manager at Cottage Grove Mine, delivered an opening statement.

Illinois EPA Hearing Participants:

Stefanie Diers, Assistant Counsel, Bureau of Water
Brian T. Koch, Standards Section, Bureau of Water
Iwona Ward, Permit Engineer, Mine Program, Bureau of Water
Larry D. Crislip, Permit Section Manager, Mine Program, Bureau of Water

Comments and questions were received from the audience.

Hearing Officer Dean Studer closed the hearing at 6:15 p.m. on September 15, 2011.

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

Approximately 45 persons representing neighbors, local government, businesses, miners, elected officials, environmental groups, interested citizens, and Arclar Company L.L.C., participated at and/or attended the hearing. A court reporter prepared a transcript of the public hearing which was posted on the Illinois EPA website <http://www.epa.state.il.us/public-notices/npdes-notices.html#peabody-arclar-wildcat-mine>

The hearing record remained open through October 6, 2011.

BACKGROUND OF PEABODY ARCLAR MINING, L.L.C. Wildcat Hills (Cottage Grove Pit/Wildcat UG) and Willow Lake Mine

The Illinois EPA Bureau of Water has prepared a draft renewed and modified National Pollutant Discharge Elimination System (NPDES) permit for Peabody Arclar Mining, L.L.C. for Wildcat Hills (Cottage Grove Pit/Wildcat UG) and Willow Lake Mine. The address of the discharger is Peabody Arclar Mining, L.L.C., 7100 Eagle Crest Boulevard, Suite 100, Evansville, Indiana. The facility is located in Gallatin and Saline counties, one mile north of Equality, Illinois, at 12250 McClain Road, Equality, Illinois.

The NPDES permit will cover the Wildcat Hills Mine Cottage Grove Pit and the adjoining Willow Lake Mine. These coal mines have combined operations and have numerous sedimentation pond outfalls. The renewed permit would incorporate Office of Mines and Minerals Permit No. 415 to make a total mine area of 6885 acres. Through continued mining at the site, new sedimentation ponds will be created resulting in six new outfalls (028 – 033). Existing outfall 020 will have an expanded catchment area. Additionally, the renewed permit would recognize the name change of the applicant and includes revised permit limits for Outfall 001 to reflect upstream discharges from Outfall 033. This permit would authorize discharges into unnamed tributaries of the Saline River, of the North Fork and Middle Fork Saline River, of Cockerel Branch, and of Rocky Branch as well as direct discharges into the North Fork Saline River and Cockerel Branch.

All of the unnamed tributaries receiving discharges are zero 7Q10 flow, General Use waters. Many of these streams are channelized ditches according to the USGS topographic maps. The unnamed tributaries have small watersheds, all less than five square miles. None of the unnamed tributaries have been assessed by the Agency and therefore are not listed in the Illinois Integrated Water Quality Report and Section 303(d) List – draft 2010 version.

The Saline River (AT-05) is listed as impaired for aquatic life uses for Alteration in stream-side or littoral vegetative covers, Boron, Manganese, and Loss of in-stream cover. The North Fork Saline River (ATF-06) is listed as impaired for aquatic life uses for Alteration in stream-side or littoral vegetative covers and Loss of in-stream cover. The Middle Fork Saline River (ATG-03) is listed as impaired for aquatic life uses for Alteration in stream-side or littoral vegetative covers, Sedimentation/Siltation, Total Suspended Solids, Phosphorus (Total), Aquatic Plants (Macrophytes), and Changes in Stream Depth and Velocity Patterns. Neither Cockerel Branch nor Rocky Branch (ATZB) is listed on the draft 2010 Section 303(d) List.

Responses to Comments, Questions and Concerns

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

NPDES Permit

1. Regarding coal washing – page 43 of the construction authorization dated July 15, 2011 describes a fine coal refuse underground injection system. Can you describe what the coal preparation process is at this site?

The underground slurry injection referenced in the draft permit was an activity originally approved several years ago and was only for a short period of time while surface disposal facilities were being developed. Underground slurry injection was stopped several years ago and has not been active since that time. The Applicant has no plans for this activity to continue in the future. Therefore, the reference to the approval of underground injection of slurry has been removed from the permit as issued. No underground slurry injection is currently approved under the final issued permit.

Coal preparation process and refuse disposal at this site is as follows:

Slurry from the preparation plant can go to either Refuse Disposal Area No. 2 or RB001 (Pit 4 final cut). Refuse Disposal Area No. 2 decant (treatment water) is pumped to Sedimentation Basin 016B which is pumped to Sedimentation Basin 015 (outfall WL015) and then pumped to the plant for reuse. If Sedimentation Basin 016B does discharge, it reports to Sedimentation Basin 016A Phase 3 (Outfall 016). RB001 discharges to RB001 decant basin that is pumped back to the plant for reuse. If decant basin RB001 does discharge it reports to Sedimentation Basin 010 (Outfall 010).

Currently, coarse refuse is taken to the refuse impoundment for use in constructing the coarse refuse dam. The out-slope runoff reports to Sedimentation Basin 016B which reports to Sedimentation Basin 016A Phase 3 (Outfall 016) or Sedimentation Basin 018B which reports to Sedimentation Basin 018A (Outfall 018).

The permit allows coarse refuse to be placed in the pits as long as it is not a monofill (one type of fill material), and the elevation of the coarse refuse is below the top of the rock/unconsolidated interface.

2. It appears that there will be a coal washing processing area that will tributary to sedimentation basin 016, but nowhere in the permit does it state that it is a tributary. Would “best management practices” be used to handle the water that is used in washing the coal?

The Best Management Practices presented in the SIU Study entitled *"Identification and Assessment of Best Management Practices in Illinois Mining Operations to Minimize Sulfate and Chloride Discharges"* are not directly related to the water that is used in the coal cleaning process. These Best Management Practices are specific to the disposal of coal processing waste and the handling and management of these wastes.

Also, please refer to the responses to Item No. 1 above and No. 11 under Antidegradation Statement below.

3. Special Condition Number 12 (stockpiles) – I saw the table that shows the flow ratio of the stream that is receiving the runoff from the coal preparation plant, and it appears to be the lowest ratio. Could you please explain how this table is used?

Special Condition No. 12: Sediment Pond Operation and Maintenance (Outfalls 001, 002, 010, 011, 013, 014, 016, 018, 019, 020 and 028):

- a. No discharge is allowed from Outfall Nos. 001, 002, 010, 011, 013, 014, 016, 018, 019, 020 and 028 during "low flow" or "no flow" conditions in the receiving stream, unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302. For purposes of this Special Condition "low flow" shall be defined as any condition wherein the upstream flow required for mixing is less than the ratio times the flow rate being discharged from the respective outfall. These minimum required ratios are as follows:

Outfall No.	Flow Ratio of Receiving Stream to Outfall Discharge (minimum required)
001	0.34
002	2.61
010	1.19
011	2.83
013	3.06
014	1.77
016	0.72
018	1.18
019	8.93
020	4.80
028	2.80

For outfalls that may require mixing to attain water quality standards, the table is used to provide the applicant with the minimum flow ratios (receiving stream flow to outfall flow) that must be present in order to discharge a pollutant at concentrations in excess of the water quality standard. The water quality standard is applied as the permit limit during dry weather conditions and is specified in "Discharge Condition I" for each outfall.

However, during or after precipitation events that result in dilution ratios at or above the minimum ratio specified in the table, the Applicant may discharge a pollutant at or below the concentration specified in Discharge Conditions II-IV. Providing that adequate flow ratios are present and the pollutant is discharged at a concentration no greater than that specified in Discharge Conditions II-IV, the water quality standard for that pollutant will be attained within the receiving water after mixing.

In regards to this specific NPDES permit, sulfate is the only pollutant for which mixing will be allowed. During wet weather events when mixing is available, Special Condition Nos. 12, 13 and 14 will require monitoring for flow, sulfate, chloride, and hardness to be conducted at each specified outfall and within each specified receiving water. The effluent and in-stream monitoring will serve to demonstrate that water quality standards in the receiving streams are being met.

Special condition #12 has been revised in the final permit to clarify the requirement for mixing ratios.

4. Special Condition Number 12 - The coal preparation plant is discharging to outfall 016; it seems like the highest pollutant source waste stream from the entire site. Could you explain how that number (0.72) was developed? We appreciate the Agency writing this in a way that we can understand discharge conditions – whether it would be during no precipitation, some precipitation, a lot of precipitation. For example, the mining company cannot discharge waters high in sulfates, chlorides and suspended solids or metals into streams that are already impaired unless there's sufficient flow to dilute them. What constitutes sufficient flow?

The minimum receiving water to outfall flow ratio (0.72:1) for Outfall 016 was developed by back-calculating the minimum amount of upstream flow needed to dilute an Outfall 016 effluent concentration of 3,250 mg/L sulfate and still attain the sulfate water quality standard in the receiving water. The 3,250 mg/L sulfate limit (during wet weather conditions) was used as the maximum effluent concentration given that this outfall receives coal refuse and subsequently has the potential to discharge high sulfate concentrations, despite the use of best management practices. It should be noted that a maximum sulfate limit of 4,858 mg/L during wet weather conditions would still result in attainment of the sulfate water quality standard in the receiving water following mixing. However, the Agency determined that a 4,858 mg/L sulfate limit was not warranted given that the existing 3,250 mg/L sulfate limit can currently be met by the Applicant.

The flow ratio was calculated using a series of mass balance calculations incorporating several factors, which include: the catchment area of the sedimentation pond; the watershed size of the receiving stream upstream of Outfall 016; the sulfate, chloride, and hardness concentrations within the receiving stream and Outfall 016; and the downstream sulfate water quality standard that would be applicable in the receiving water based on the mixing of Outfall 016 and the receiving stream.

Given that the dilution ratio is only used during wet weather events, it is assumed that runoff during storm events is proportional between the receiving stream watershed and the Outfall 016 watershed, therefore the ratio of receiving stream watershed to outfall watershed equates to volume of flow (e.g., 1,301.9 acres of watershed upstream of Outfall 016 and 814 acres of Outfall 016 watershed = 1.6:1 dilution ratio).

Based on the calculated concentrations of chloride (39.1 mg/L) and hardness (316.9 mg/L) that would exist in the receiving water downstream of Outfall 016, it

was determined that the sulfate water quality standard (35 IAC 302.208(h)(2)(A)) in this segment of the receiving water would be 1,927.2 mg/L.

A final mass balance equation was then used to calculate the minimum upstream watershed size that would result in attainment of the sulfate standard downstream of Outfall 016. This mass balance equation is provided below. The minimum upstream watershed size needed to dilute Outfall 016 effluent in order to attain the downstream sulfate water quality standard was calculated at 587.7 acres. The minimum receiving stream flow (587.7 acres) was then divided by the Outfall 016 flow (814 acres) to obtain the 0.72:1 flow ratio that was listed in Special Condition No. 12.

$$C_{ds} = \frac{Q_{us}(C_{us}) + Q_e(C_e)}{Q_{us} + Q_e}$$

Where:

C_{ds} = 1,927.2 mg/L sulfate (the water quality standard to be met downstream of Outfall 016)

Q_{us} = X (the unknown minimum upstream watershed size needed to dilute Outfall 016 effluent and attain the 1,927.2 mg/L sulfate water quality standard in the receiving water)

C_{us} = 95.08 mg/L sulfate (the concentration in the receiving water upstream of Outfall 016)

Q_e = 814 acres (the watershed size of Outfall 016)

C_e = 3,250 mg/L sulfate (the maximum permitted sulfate concentration for Outfall 016)

5. Site visits in August and inspection of citizen complaint records at IDNR revealed serious fugitive dust control issues from active mining and reclamation activities. The NPDES permit requires that the mine employ "good mining practices" which include dust control. How can Illinois EPA issue a new permit given the mine's failure to control dust from blasting? Dust containing pollutants may enter the river and streams.

Control of blasting dust from such activities is outside the scope of the Subtitle D regulation. It is recommended that IDNR/Office of Mines and Minerals be contacted regarding these issues. Dust control from active mining and reclamation activities is accomplished through the use of water trucks which should be utilized by the facility on an as-needed basis.

6. The coal preparation plant and refuse disposal area for this mining complex is located at the Willow Lake Mine Facility as described and depicted in Illinois EPA Log Nos. 8346-00, 8346-00-A, and 8346-00-B. We understand that there is a coal slurry impoundment at the coal preparation plant and that there is no discharge from the onsite washing operations. Could you please confirm whether this is the case? (PRN letter)

Please refer to the response to Item No. 1 under NPDES Permit above.

Antidegradation Statement

7. Three main segments of the Saline River are deemed “impaired” by Illinois EPA. However, the smaller segments that would initially receive runoff or discharges from the mine site have not been evaluated or characterized by Illinois EPA. We are concerned that the Agency has not fully characterized the condition and existing uses of the water bodies that are receiving mine storm water discharge. For example, the fat pocketbook mussel, which is an endangered species, resides in the North Fork Saline River two and one-half miles downstream of this mine site. We would like to see mussel surveys – as well as other biological characterization – done in the upstream reaches that are proposed to be impacted by this site through mining discharges or creation of sedimentation basins. This NPDES permit should not be issued unless and until the Applicant or the Agency completes the studies necessary to adequately characterize the conditions and existing uses of each of the streams, as required by Ill. Adm.Code § 302.105.

Cockerel Branch, the unnamed tributaries of Cockerel Branch, and the unnamed tributaries of North Fork Saline River are the receiving waters that are associated with the new and modified NPDES activities proposed at this site. 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. The largest watershed size for a stream receiving an NPDES outfall is 4.2 square miles (Cockerel Branch, immediately downstream of Outfall 020); therefore all receiving waters are recognized as 7Q1.1 zero flow streams.

Given the lack of flow and, in most cases, complete drying of the stream bed, streams meeting this definition may seasonally support some organisms that are adapted for temporary water occurrence, but the communities are limited in scope and are so highly dependent on instantaneous environmental conditions that an accurate baseline assessment cannot be made.

However, given that Cockerel Branch possesses 5.2 square miles of watershed at the southern boundary of the mining permit (IDNR Permit No. 415), the applicant conducted biological assessments within Cockerel Branch as well as three zero 7Q1.1 streams from different land use types and watersheds within the permit area.

Collection, processing and analysis of fish and macroinvertebrates were conducted following Agency procedures. Chemical and physical assessments were also conducted concurrent with the biological assessments. Two of the sampling sites were located in unnamed tributaries of the North Fork Saline River at the eastern boundary of the permit area, which is immediately upstream of where the fat pocketbook mussel was surveyed.

Overall, the quantity and diversity of aquatic life at each site was limited, which was expected given the small size of the streams. As anticipated due to its larger watershed size, Cockerel Branch had the highest diversity and total number of organisms collected, and was the only site where fish were collected. The

presence/absence of mollusks and snails was noted for each site in the biological assessment report prepared by Wetland Services. No mussels were found. The absence of mussels in these small streams was expected, as mussels require host fish to begin their life cycle and cannot survive during drought conditions when surface water, or a groundwater influx, is not present. The US Fish and Wildlife Service, upon consultation with IDNR to facilitate compliance with the Endangered Species Act, reviewed the IDNR Permit application and also stated that the occurrence of the fat pocketbook in or adjacent to the mine permit area is unlikely, and that the proposed mining activity is not likely to adversely affect the fat pocketbook. Although negative impacts are not expected, the Applicant has prepared a Protection and Enhancement Plan for the fat pocketbook, which was reviewed by both INDR and the US Fish and Wildlife Service.

As part of the 401 Water Quality Certification permit, the applicant will perform yearly biological assessments of mitigated streams (for five years) following the same protocols used in the biological assessments summarized above. The biological assessments will be conducted in the upstream reaches that are proposed to be impacted by this site through mining discharges or creation of sedimentation basins. Similar to the pre-mining biological assessments, the presence or absence of mussels will be noted for each site.

8. Underground water located in a sealed section of the mine is proposed to be pumped and discharged through Outfall 006. Has the receiving stream been characterized for what pollutants exist in it presently, and has a reasonable potential analysis been done to determine whether current limits can be met at Outfall 006? Will there be limits set for manganese and mercury at that contribution point (006)?

Since Basin and Outfall 006 receive pumpage from the underground mining operation, Outfall 006 will have a manganese limit and will have monitoring, but no permit limit for, mercury. The permit has been modified to include permit limits for manganese and monitoring requirements for mercury for discharges from Outfall 006.

Discharges from Outfall 006 are received by an unnamed tributary of the North Fork Saline River. Given that the catchment area for the unnamed tributary is comprised entirely of the catchment area for Outfall 006, the water quality of the unnamed tributary is dependent on the water quality of Outfall 006. Outfall 006 effluent data was used to characterize the in-stream quality of the unnamed tributary and to determine the water quality standards that must be attained within the unnamed tributary and applied as permit limits at Outfall 006.

A formal, reasonable potential analysis of pollutants (which includes multipliers, 95th% estimations, etc) was not necessary for Outfall 006 because chloride, 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.

Based on Outfall 006 effluent data collected from April 1, 2009 to April 20, 2011, it was determined that current permit limits for chloride and sulfate can be met upon discharge and that standards would be met within the unnamed tributary. Given

the low concentrations of chloride and sulfate measured in Outfall 006 effluent, a reasonable potential analysis on this outfall would not have resulted in the requirement for sulfate and chloride permit limits at this outfall.

9. Similarly, for Outfall 001, near the location of a temporary coal crusher and coal stockpile – shouldn't there be a manganese limit of 1 and a mercury monitoring requirement in place, as is generally Illinois EPA practice?

Since Basin and Outfall 001 will receive drainage from the coal related materials monitoring requirements for discharges from Outfall 001 should have included manganese permit limits and monitoring only for mercury concentrations. The permit has been modified to include permit limits for manganese and monitoring requirements for mercury for discharges from Outfall 001.

10. Illinois EPA Water Quality Standards Section has stated numerous times that the Agency does not require any kind of assessment of headwater-type streams, assuming they have very little aquatic life potential. We refer you to a 2007 report by American Rivers and the Sierra Club, "*Where Rivers are Born: The Scientific Imperative for Defending Small Streams.*" While headwater-type streams may require different assessment methods, but many do indeed have important existing aquatic life uses that cannot be dismissed categorically as insignificant. They are waters of Illinois, and they are subject to the same existing use rules, even if the existing uses are of a different type than for larger-order streams.

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. The largest watershed size for a stream receiving an NPDES outfall is 4.2 square miles (Cockerel Branch, immediately downstream of Outfall 020); therefore all receiving waters are recognized as 7Q1.1 zero flow streams. 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 required. However, given that Cockerel Branch possesses 5.2 square miles of watershed at the southern boundary of the mining permit (IDNR Permit No. 415), the applicant conducted biological assessments within Cockerel Branch as well as three zero 7Q1.1 streams from different land use types and watersheds within the permit area. Also, please refer to the response to Item No. 7 above.

11. The coal that will be sent from the two new pits to the coal washing process – will it be handled under the antidegradation assessment special conditions or under the construction authorization?

Outfall 016 has been previously permitted and regulated for waste associated with coal processing. Coal produced from the new or additional mining areas

proposed in this renewed and modified permit will replace the production from areas or pits in which mining is being completed. The addition of the new mining areas does not propose expanded production through the coal preparation facilities. The continued processing of coal and discharges of water from Outfall 016 is not considered a new or expanded waste stream.

12. Illinois Antidegradation Rule, 35 Ill. Adm. Code 302.105 (c)(B)(iii) has not been satisfactorily addressed in that alternatives for minimizing increases in pollutant loadings (sulfate, chloride, iron, manganese, etc.) have not been fully explored. Constructed wetlands could be installed downstream of the two sedimentation basins. Two such engineered wetlands projects are planned at new mine sites in the southern half of Illinois and will be designed and operated to maintain controlled rates and durations of water release as appropriate in order to provide the minimum amount of water necessary to support acceptable wetland functions while also protecting against the failure of wetland functions due to water inundation.

In the October 2003 Lorax Environmental report "Treatment of Sulfate in Mine Effluent," Lorax concluded that biological sulfate reduction had the greatest potential due to 1) its minimal waste production, 2) low capital cost, 3) the opportunity to recover and sell trace metals and 4) its ability to reduce sulfate and trace metals in wastewater to very low levels. These alternative treatments must be considered under Illinois' Antidegradation Rule.

The antidegradation assessment for the modified NPDES permit provided a summary of treatment alternatives and other options to minimize increases in pollutant loading at Cottage Grove Pits 9 and 10. The information provided in the antidegradation assessment included consideration of the following alternatives: no discharge of stormwater from the site, discharge of stormwater to publicly-owned treatment works (POTW) or other sources, alternate onsite treatment technologies (which included biological treatment), and no mining.

In the document entitled "Peabody Arclar Mining, L.L.C., Wildcat Hills Mine – Cottage Grove Pits 9 and 10, Analyses of Benefits and Alternatives to Lessen Water Quality Impact", which was submitted to the Agency on August 2, 2010, the Applicant provided the following information regarding the applicability of 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 (without oxygen) 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. Biological treatment in the form of wetlands is practical for only very small mines. The construction of a wetland large enough to accommodate a mine such as Wildcat Hills Cottage Grove Pit would disrupt a large land area and the 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.”

“Therefore, biological treatment is not considered reasonable for use at the Cottage Grove Pits 9 and 10 area as follows:

1. Due to infrequent need for additional treatment of mine water prior to discharge.
2. Biological processes require a continual source of water with ‘food’ to maintain the bacterial populations that are needed to reduce the sulfate; for mine water discharge, a continual source of food for the additional treatment would only be available during the overflow events.
3. Large additional land areas would be necessary thus increasing the mines footprint.
4. It is not a proven technology to achieve any significant sulfate reduction. Since sulfate removal requires strict anaerobic conditions, it is normally very difficult to achieve this in large wetlands because of prevailing short circuiting and insufficient presence of easily degradable organics.
5. Because day to day intervention in the treatment process is precluded, precise control of the treatment effluent quality is not feasible.
6. Because of the intermittent need to remove sulfate from mine wastewater continuous biological reactors are considered impractical.”

Water Quality Standards

13. The North Fork of the Saline River – segment ATF-06 - receives flow from Outfalls 001, 002, 006, 013, 014, 014WL and 033 is classified as impaired due to alteration of stream-side or littoral vegetative covers (at the interface between land and water), and loss of in-stream cover. The operations plan for much of the land covered in this permit as submitted as part of the IDNR Mine Application describes the clearing and grubbing of vegetation on areas to be mined. Topsoil and rooting media will also be removed. The removal of vegetation either adjacent to or near the stream banks could exacerbate the existing impairments and must be prevented.

The referenced outfalls discharge to unnamed tributaries of the North Fork Saline River rather than directly to the North Fork Saline River. The permit boundary for mining operations in Pit 9 is over one mile away from the North Fork Saline River. Stream-side or littoral vegetative covers of the North Fork Saline River will not be cleared, nor will vegetation immediately adjacent to or near the stream bank.

14. The Middle Fork of the Saline River - segment ATG-03 – receives flow from the unnamed tributary into which Outfall 016 discharges is classified as impaired due to alteration in

streamside or littoral vegetative covers, sedimentation and siltation, total suspended solids, changes in stream depth and velocity patterns. Preparation of the mining site, as described above and including vegetation removal, regrading, auger mining, and impacts of large mining equipment will likely further contribute sediment loading and will remove vegetation that serves as sediment traps and filters, uptake of storm water and habitat for either aquatic or semi-aquatic species.

Additionally, these surface impacts will change the features of the land draining to the stream and may affect the physical stream features that determine sediment loading and distribution, stream depth and stream velocity, further contributing to the impairment of this segment.

The on-site activities and discharges associated with Outfall 016 are located approximately 8 miles upstream of the Middle Fork of the Saline River. Stream-side or littoral vegetative covers of the Middle Fork Saline River will not be cleared, nor will vegetations immediately adjacent to or near the stream bank.

Development of drainage control and treatment facilities prior to any other disturbance on the site will ensure that offsite contribution of suspended solids and mining related contaminants is minimized. This requirement to install treatment facilities prior to further disturbance often reduces sediment loadings to the receiving waters from existing conditions.

15. The Saline River segment AT-05 receiving flow from the unnamed tributary into which Outfall 027 discharges is on the 2008 Illinois 303 (d) list of impaired waters due to alteration in streamside or littoral vegetative covers, boron, manganese, and loss of in stream cover. In addition to the impacts described above for activities that will impact the impaired segments of the North and Middle Forks of the Saline River, mining activities will release additional boron and manganese, both chemical elements found within the strata to be disturbed during proposed activities. How can Illinois EPA justify additional permitting of activities that contribute to the impairment of these stream segments?

The Agency is not permitting additional activities in the catchment area for Outfall 027, as these activities were authorized in the 401 Water Quality Certification and NPDES permit for Cottage Grove Pit 8, issued November 25, 2009. Outfall 027 is located in the northwest corner of the Pit No. 8 permit area (IDNR/OMM Permit No. 403) and is over 2.5 miles from the Saline River. Stream-side or littoral vegetative covers along the Saline River will not be cleared, nor will vegetations immediately adjacent to or near the stream bank. Losses of in-stream cover in the Saline River will not be exacerbated.

The NPDES permit includes a limit for manganese in discharges from Outfall 027. This permit limit has been established equal to the current manganese water quality standard of 1.0 mg/L, which will ensure that no contribution to impairment of downstream waters occurs due to discharges from Outfall 027. The Agency has no reason to believe that boron will have potential to exceed the water quality standard in the discharges from this outfall, because there is no source material located within the watershed of Basin and Outfall 027. Therefore, boron monitoring is not required for discharges from Outfall 027.

16. We are concerned about sedimentation ponds being created out of streams. Instead of impounding stream segments and taking them out of protections afforded by the Clean Water Act, we recommend that the applicant develop sedimentation basins outside the stream and have the outfall from each sedimentation basin into the stream, which is protected as “waters of the state.”

All sediment basins are being constructed off-line from existing streams with the exception of sediment basin 031. The location of each basin has been chosen to maximize water treatment efficiency by taking into account topography, property control boundaries, coal extraction boundaries and existing vegetation. Sediment basin 031 is located in an existing agricultural drain and will be mined through during the extraction process. Therefore, the same portion of stream will be impacted regardless of basin placement. In many instances, it is a best management practice to construct sediment basins in an existing drainage way as close to the coal extraction area as possible. This practice helps ensure consistent, effective retention of water and minimizes advanced watershed disturbance.

17. Is the applicant again proposing an exception to the 100-foot buffer zone on Cockerel Branch?

The applicant has requested an exemption to the SMCRA 100-foot buffer zone rule on Cockerel Branch where mining will proceed through the drainage. The drainage will then be reconstructed and mitigated as proposed in the CWA 401 and COE 404 Permit Applications.

18. Is there a way to prevent discharge from sedimentation ponds if there is a strong storm event? Is there a way to keep it from entering the stream? How do the protections written into the permit insure that the water quality standards are met in practice?

The antidegradation assessment for the modified NPDES permit provided a summary of treatment alternatives and other options to minimize increases in pollutant loading at Cottage Grove Pits 9 and 10. “No discharge of stormwater” was included as an alternative. Each of the Cottage Grove Pits 9 and 10 area sedimentation ponds has been designed to a specific storm event to retain silt and soil material within its boundary. Although the ponds are designed and evaluated to minimize the discharge of water, the volume of runoff from the approximate 880-acre mine permit area is too large to be retained during significant storm events and water must then be discharged. Illinois design standards for sedimentation ponds allow for discharge during and after storm events provided the design minimizes the release of sediment with the discharged stormwater. It is not economically feasible to construct large, no discharge stormwater detention ponds when sedimentation ponds with occasional discharges are allowed and can meet water quality standards.

The NPDES permit has comprehensive regulations in place to assure that water quality standards will be attained during dry weather and wet weather conditions.

Also, please refer to the response to Item No. 3 under the NPDES Permit section above.

19. We strongly oppose the approval of the Peabody Arclar Mining, L.L.C. NPDES permit. Pollution to our waterways is already a serious threat to both public health and the surrounding natural environment. Surface runoff high in sulfates continually flows into the Saline River watershed from abandoned mines. Many locals that previously drew water from nearby creeks and wells for domestic uses are now unable to because of contamination. Miles of creeks and rivers that were once prime fishing grounds now contain no visible aquatic life.

The surface waters that would be impacted by the 401 Certification and authorized to receive NPDES permit discharges are not listed as impaired for any designated uses due to sulfate. The NPDES permit will regulate sulfate to attain the water quality standard in the receiving waters at all times.

The Agency is not aware of any past or present domestic use of these surface waters and therefore has not designated any of the receiving waters as being used for human consumption, which are afforded additional protection for parameters such as sulfate.

Illinois EPA does not have knowledge of any specific threat to potable wells. Groundwater monitoring is in place to identify potential contamination, should it occur from the mine. If local residents have specific concerns about potable well contamination from the mine, they can lodge a complaint with IDNR, as that agency has a program in place to investigate and replace, if necessary, private potable wells that are affected by mining.

The Agency's 305(b)/303(d) assessment program serves as a means to monitor the chemical, physical, and biological health of the Saline River watershed, and restore the integrity of waters that become impaired. Having assessed these streams for several years, the Agency has not observed any instances where miles of creeks and rivers once containing an abundance of fish have been degraded to the extent that visible aquatic life is no longer present.

20. The draft permit does not address cumulative impacts of previous stream conditions and the proposed discharge in waters listed as "impaired." This permit adds 878.5 acres to the existing permit, bringing the total area permitted to 6,885 acres. The additional acreage represents 12.3 percent of the Cockerel Branch's watershed and 3.1 percent of the East Branch tributary to the North Fork of the Saline River. How can Illinois EPA argue that strip mining such a large portion of a watershed will be protective of water quality in those streams?

The cumulative impacts of previous stream conditions and proposed discharges from this site have been addressed. The applicant provided the Agency with detailed water quality information from existing outfalls, proposed outfalls, and associated receiving waters. This information was used to determine appropriate effluent limitations which will ensure that water quality standards in the immediate and downstream receiving waters are not exceeded.

21. What percentage of the total area of the receiving streams will be impacted by the 6,885 acres at this mine, in addition to the numerous other surface mines in the Saline River's watershed?

A cumulative impact analysis of the proposed mining operation was provided in the Section 401 Water Quality Certification permit application associated with the renewed and modified NPDES permit. A summary of this information is as follows:

The project area is located entirely within one USGS 8-digit watershed: the Saline River (05140204), which is a tributary to the Ohio River. The Saline River watershed is located in southern Illinois and flows in an easterly direction totaling more than 754,560 acres¹⁴. The watershed covers land within Hamilton, White, Franklin, Williamson, Gallatin, Johnson, Pope, Hardin, and Saline Counties. The project area is drained by two smaller USGS 12-digit watersheds: Cockerel Branch (051402040207) and the Gold Hill-North Fork Saline River (051402040703). Cockerel Branch drains to the south to the Saline River while the Gold Hill-North Fork Saline River drains to the east into the North Fork Saline River. The North Fork Saline River confluences with the Saline River immediately downstream of the project area.

The Cockerel Branch 12-digit Hydrologic Unit Code (HUC) watershed encompasses approximately 35.8 square miles with the majority of the watershed in Saline County. The watershed then crosses into Gallatin County before letting out into the Saline River southwest of the town of Equality. The largest developed area in the watershed is the town of Eldorado which has a population of 4,534 (2000 Census). Also within the watershed area is the unincorporated town of Muddy. The majority of the land in the Cockerel Branch watershed has been converted to an agricultural land use which required extensive channelization of many of the native streams. Many of these channelized sections have little to no riparian buffers established along them.

The Gold Hill-North Fork Saline River 12-digit HUC watershed is slightly smaller than Cockerel Branch and includes two areas that drain directly to the North Fork Saline River. One area drains from the west and the other from the east. The watershed is given the name Gold Hill from being located partially in Gold Hill Township of Gallatin County. The developed areas in the watershed are the towns of Ridgway and Equality. The majority of the land within this watershed has been converted to an agricultural land use which promoted the extensive channelization of many of the native streams. Agricultural practices have maintained a narrow riparian buffer along the North Fork Saline River due to these areas being prone to flooding. The following table summarizes the proposed disturbance areas and their watershed contribution to initial receiving streams as well as downstream waters.

Watershed Summary				
Receiving Stream	Area in Disturbance	Percent of Total Disturbance	Receiving Stream Watershed	Percent of Total Watershed
	(acre)	(percent)	(acre)	(percent)
Cockerel Branch (051402040207)	724.6	82.5	22,939	3.2
Gold Hill - North Fork Saline River (051402040703)	153.9	17.5	18,817	0.8
Totals:	878.5	100		
North Fork Saline River (0514020404)	148.9		156,721 ¹²	0.10
Saline River (05140204)	878.5		754,560 ¹⁴	0.12
Ohio River (05)	878.5		95,596,800	0.00092

The following table summarizes the land cover, which is predominated by agriculture, for the smaller watersheds along with the 8-digit Saline River.

Land Cover Summary							
Watershed	Watershed Area	Agriculture including Pasture	Forest / Wildlife	Developed	Water/ Wetlands	Undeveloped	Source of Information
	(acre)	(percent)	(percent)	(percent)	(percent)	(percent)	
Cockerel Branch (051402040207)	22,939	86	4	8	1	1	Aerial photo
Gold Hill - North Fork Saline River (051402040703)	18,817	86	9	1	3	1	Aerial photo
Saline River (05140204)	754,560 ¹⁴	68	15	5	2		¹²

The following table provides a comprehensive list of the approximate surface effects in acres within the 8-digit HUC watershed that has been surface mined, is currently being surface mined, and would potentially be surface mined. Potentially mined acreages include the reserve for this project area and any potential surface mineable reserves the Applicant is exploring. Information on potentially mined acreages for other coal operators within the watershed is not known.

Cumulative Surface Effects Summary							
Watershed	Watershed Area	Previously Affected by Mining	Percent of Watershed Previously Affected by Mining	Currently Affected by Mining	Percent of Watershed Currently Affected by Mining	Potentially Affected by Mining	Percent of Watershed Potentially Affected by Mining
	(acre)	(acre)	(percent)	(acre)	(percent)	(acre)	(percent)
Cockerel Branch (051402040207)	22,939	1,327	5.8	420	1.8	900	3.9
Gold Hill - North Fork Saline River (051402040703)	18,817	1,319	7.0	131	0.7	97	0.5
North Fork Saline River (0514020404)	156,721 ¹²	1,319	0.84	131	0.08	382	0.24
Saline River (05140204)	754,560 ¹⁴	2,646	0.35	551	0.07	6,400	0.85

12. United States Department of Agriculture - Natural Resources Conservation Service (Illinois), Saline River Watershed - Rapid Watershed Assessment Report, September 2008.
14. Peabody Arclar Mining, LLC, Application for Surface Coal Mining and Reclamation Operations Permit - Surface Operations, Mining Permit No.415, submitted April 20, 2010.

Groundwater Issues

22. What baseline data has been collected in the area of the easternmost pit?

Well #8MW-22 will be located on the northeast corner of the edge of Pit No. 9. Six analyses within the first year and six post-mining analyses for the full list of 620 inorganic parameters (Ill. Adm. Code Part 620) must be conducted for the new monitoring well to establish ambient background and post mining concentrations. Quarterly monitoring for SMCRA parameters and chloride will occur for the duration of mining. It is stated that in the case of refuse disposal, Illinois EPA 620 parameters will be included in the quarterly monitoring during mining also.

23. How many monitoring wells have been installed in the area immediately adjacent to Pit Number 10?

Four monitoring wells have been installed in the area of Pit No. 10. Two wells, 12PMW-5 and 2PMW-1, will be mined through. However, an additional well, identified as #12-MW-21, has been proposed to be installed nearby prior to the elimination of these two wells.

24. Has groundwater monitoring been done (a) on the site (in general) and (b) in the area where coal washing is happening?

Yes, groundwater monitoring has and is being performed at specified locations at the mine. Monitoring is not being done specifically at the area of coal washing

due to the fact that the area of coal washing is not an area where permanent storage of coal waste occurs.

Also, please refer to the response to Item No. 25 below.

25. If groundwater monitoring is being done at the site, could you please state at what locations on the site and whether there are any exceedances of groundwater standards?

Three groundwater monitoring wells are located around Refuse Disposal Area No. 1, and three groundwater monitoring wells are located in the region of Refuse Disposal Area No. 2.

Four monitoring wells have been installed in the area of Pit No. 10, one of which also monitors Refuse Disposal Area No. 2 and one of which also monitors Refuse Disposal Area No. 1. Two wells, 12PMW-5 and 2PMW-1, will be mined through. However, an additional well, identified as well #12-MW-21, has been proposed to be installed nearby prior to the elimination of 12PMW-5 and 2PMW-1. An additional monitoring well, 8MW-22 was requested and will be located on the northeast corner of the edge of Pit No. 9.

In addition to the groundwater monitoring wells mentioned above, there are three other monitoring wells at the mine as a whole. One well is located in the northwest corner of the mine, north of IDNR/OMM Permit No. 392. Two other monitoring wells are located in the eastern portion of the mine, one east of IDNR/OMM Permit No. 327 and one in the southern portion of IDNR/OMM Permit No. 327.

Elevated concentrations of the following parameters been detected and confirmed:

TDS, sulfate, manganese, chloride, iron, beryllium, lead, mercury, nickel, selenium, antimony, and thallium.

While there have been elevated levels of monitored parameters detected in groundwater monitoring for the mine that may indicate impacts from mining activities, it is important to note that according to Ill. Adm. Code Part 620.450 (b)(2), Class I and Class II groundwater standards are not applicable to inorganic constituents and pH prior to reclamation at a coal mine in areas where overburden has been removed for the extraction of coal. In addition, according to Ill. Adm. Code Part 620.450 (b)(3), after completion of reclamation at a coal mine, the Class I and Class II standards are applicable to inorganic constituents and pH, with the following exceptions:

The concentration of total dissolved solids (TDS) must not exceed the post-reclamation concentration or 3,000 mg/L, whichever is less, within the permitted area, or the concentration of TDS must not exceed the post-reclamation concentration or 5,000 mg/L, whichever is less, if the Illinois Dept. of Mine and Minerals and the Agency have determined that no significant resource groundwater existed prior to mining;

For chloride, iron, manganese, and sulfate, the post-reclamation concentration within the permitted area must not be exceeded; and

For pH, the post-reclamation concentration within the permitted area must not be exceeded within Class I groundwater.

26. We are particularly concerned about the on-site storage of slurry from coal washing that may leach into groundwater. We are also concerned about the Agency's approval for underground slurry injection and potential impacts to our drinking water supply. How will the Illinois EPA permit insure the protection of groundwater for beneficial use?

Please refer to the response to Item No. 1 under NPDES Permit above for a discussion of refuse disposal at this facility.

As discussed in the response to Item No. 1 under NPDES Permit section above, the previously approved underground slurry injection was stopped several years ago with no future plans to perform such disposal activities. Therefore, underground slurry injection has been removed from the final permit.

Three groundwater monitoring wells are located around Refuse Disposal Area No. 1, and three groundwater monitoring wells are located in the region of Refuse Disposal Area No. 2.

27. Does the slurry impoundment have a liner? What groundwater monitoring is required, and does groundwater data show that groundwater quality standards and uses are being met?

The slurry impoundments do not have a liner. Please refer to the response to Item No. 25 (above) for a discussion of groundwater monitoring and applicable standards.

Enforcement/Compliance Issues

28. According to USEPA's Enforcement and Compliance History Online (ECHO), there have been permit compliance problems for five of the 12 outfalls included in the draft permit in the last four quarters, including exceedances for settleable solids and total suspended solids – more than 40 violations over three years. Please explain what steps will be taken by the applicant and the Agency to resolve these problems and how they are reflected in the draft permit. Can permit conditions be added to insure that best management practices be followed at this site?

**The Applicant provided the following response, and the Agency concurs:
The existing facility has no outstanding Notices of Violation and proposed Permit No. 415 has no associated outfalls that had associated excursions over the noted time period. The Applicant contends that during the 3-years charted on the ECHO**

website the Applicant has shown the ability and willingness, utilizing best management practices, to meet required effluent limitations.

The Applicant notes that a Violation Notice was issued by IEPA on October 8, 2009 for previous exceedances of total suspended solids (not settleable solids). The Applicant submitted a Response and Compliance Commitment Agreement (CCA) on November 19, 2009 and provided additional information on January 14, 2010. The CCA was accepted by IEPA on March 8, 2010. The CCA noted that there were errors in the then approved NPDES permit which did not allow settleable solids to be substituted for total suspended solids during routine precipitation events but that in any event, a concentrated effort to employ specific best management practices was made to correct any conditions that contributed higher than normal sediment to sedimentation basins. These best management practices include the use of mulch and erosion-control blankets applied to areas with sparse vegetation, use of flocculent to promote sedimentation, erosion prevention and timely repair and establishing vegetation. Since then, 10 excursions occurred in 2010 and 2 excursions in 2011(to date). Implementation of preventative measures has proven to be an effective plan for all outfalls and is proposed as the continued method of meeting permit effluent limits and conditions. A full-time environmental staff member was added at the Arclar complex in 2010 who will continue to provide further oversight and management of any issues that may arise.

29. IDNR has issued violations in the past for failure to control air blast and dust impacts. Do any of these issues fall under "following best mining practices" as enumerated in the current proposed NPDES permit?

Control of blasting dust from such activities is outside the scope of the Subtitle D regulation. It is recommended that IDNR/Office of Mines and Minerals be contacted regarding these issues.

Best management practices (BMP's) are specific to coal refuse disposal and the management of such waste to minimize sulfate and chloride concentrations in the runoff from these disposed materials.

Good Mining Practices identified under 35 Ill. Adm. Code 406.205, 406.206, 406.207 and 406.208 are specific to surface drainage control and the management of disturbed areas to minimize sulfate and chloride concentrations in runoff from such disturbed areas.

30. The draft permit would allow waters of the state to be converted into mine treatment works, namely the damming of headwater streams to be used as sedimentation basins for mine discharges. Per 35 IAC 301.440, waters of the State cannot be used as treatment works: "Waters' means all accumulations of water, surface and underground, natural and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon the State of Illinois, except that sewers and treatment works are not included except as specially mentioned; provided that nothing herein contained shall authorize the use of natural or otherwise protected waters as sewers or treatment works except that in-stream aeration under Agency permit is allowable."

35 Ill. Adm. Code Section 301.440, prohibits damming of a stream or headwaters of the stream if waters are considered “waters of the state;” however, in this case, the Applicant has sought a 401/404 permit for construction of a sedimentation pond and under 33 C.F.R. 328(a)(8), this is not waters of the United States nor waters of the State as defined by 35 Ill. Adm. Code Section 301.440. However, all impoundments have outfalls that are covered under the NPDES permit for this facility to ensure water quality standards are met in the receiving waters of the State.

Other Issues

31. We have deep concern for the protection and historical preservation of Native American sites containing ancestral remains and artifacts. We recently lost an ancestral cemetery at another surface mining operation of Peabody’s at the location between Mitchellsville and Pierson Hill. Within the Wildcat Hills Mine site are two grave sites and several mounds and former village sites. If Peabody is allowed to expand their mining operations into those areas, we run the risk of further loss of sites of paramount importance to American historical preservation.

Historic preservation is not an issue that is under the jurisdiction of the NPDES Permits regulations. The Applicant has stated that with respect to historical sites within this permit area, the Applicant is following all state and federal requirements to ensure all areas are evaluated properly and historically significant sites are assessed properly. The Applicant is unaware of any disturbance to ancestral remains at its sites. The U.S. Army Corps of Engineers examined the National Register of Historic Places during their review of the 404 permit application and also provided the public an opportunity to comment on this issue during their public notice of August 16, 2010 as part of their evaluation of the activities impact on public interest which is under the U.S. Army Corps of Engineers’ purview.

32. The coal company from the very beginning of their occupancy has not been a good neighbor. While the coal mine provides some jobs, short-term, they destroy the way of life for past generations and the generations to come. Examples of the damage done to land and water from mining in the past include:
- Red-stained water seeping in areas all around us;
 - Red and yellow dust billowing from the mines and floating through the air as far as the eye can see;
 - Damage from dynamite blasting shaking the homes (more damage than the small earthquakes we have had); and
 - Noise levels from the mines’ machinery can be heard for miles and disrupts the residents’ quality of life.

We believe that the mines are destroying farm land, timber land, the watershed, the water supply and wildlife habitat as we know it. As elected officials it is our duty and responsibility to try to protect the people in our township. Nothing the mines have done since they have been in our township has been advantageous to the majority of the people living here. The value of our homes and property has been adversely affected.

The mines want to close more of our roads, which will do more damage to the terrain of the land, affect the flow of the waterways, and affect tax revenues. If they are allowed to close some of the roads they propose, when flood water backs up during certain times of the year, some residents will be cut off and effectively on "islands."

Discharges from the mine site are regulated by the NPDES permit which requires that those discharges meet water quality standards. Blasting, noise issues and road closures are not under the jurisdiction of the NPDES Permit regulations. In cases where citizens observe stained seepage entering streams or visual air pollution leaving the site, they may contact the Illinois EPA's Marion Regional Office at 618/993-7200 or they may make a citizen pollution complaint on-line at <http://www.epa.state.il.us/pollution-complaint/>.

Acronyms and Initials

CFR	Code of Federal Regulations
COE	Core of Engineers
CWA	Clean Water Act
DMR	Discharge Monitoring Report
HUC	Hydrologic unit code
IDNR	Illinois Department of Natural Resources
IDPH	Illinois Department of Public Health
IEMA	Illinois Emergency Management Agency
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)
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
WIRT	Wetland Impact Review Tool

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@illinois.gov.

WHO CAN ANSWER YOUR QUESTIONS

Illinois EPA NPDES Permit:

Illinois EPA NPDES technical decisions:.....	Larry Crislip	618-993-7200
.....	or Iwona Ward.....	618-993-7200
Legal questions.....	Stefanie Diers	217-782-5544
Water quality issues.....	Brian Koch	217-558-2012
Public hearing of September 15, 2011	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/npdes-notices.html#peabody-arclar-wildcat-mine>