

NPDES Permit No. IL0062189  
Notice No. 5442c

Public Notice Beginning Date: **January 28, 2011**

Public Notice Ending Date: **February 28, 2011**

National Pollutant Discharge Elimination System (NPDES)  
Permit Program

Draft Reissued and Modified NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency  
Bureau of Water, Division of Water Pollution Control  
Permit Section  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
217/782-0610

Name and Address of Discharger:

Peabody Coulterville Mining, L.L.C.  
c/o James F. Tolen  
7100 Eagle Crest Boulevard, Suite 200  
Evansville, IN 47715-8152

Name and Address of Facility:

Peabody Coulterville Mining, L.L.C.  
Gateway Mine  
13101 Zeigler 11 Road  
Coulterville, Illinois 62237  
2 miles south of Coulterville  
(Perry and Randolph Counties)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue an NPDES permit to discharge into waters of the state and has prepared a draft permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. Comments will be accepted until the Public Notice period ending date indicated above, unless a request for an extension of the original comment period is granted by the Agency. Interested persons are invited to submit written comments on the draft permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. The NPDES permit and notice number(s) must appear on each comment page.

The application, engineer's review notes, Public Notice/Fact Sheet, draft permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

As provided in Section 309.115(a) of the Act, any person may submit a request for a public hearing and if such written comments or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. The Agency shall issue public notice of such hearing no less than thirty (30) days prior to the date of such hearing in the manner described by Sections 309.109 through 309.112 of the Act for public notice. The Agency's responses to written and/or oral comments will be provided in the Responsiveness Summary provided when the final permit is issued.

The applicant operates the surface facilities of an underground coal mine (SIC 1222). Mine operations result in the discharge of alkaline mine drainage.

Public comments are invited on the following proposed modifications incorporated into this renewal:

Various modifications and/or additions to surface facilities.

Delete Outfall 005 and 20 acre area tributary to this basin as the watershed to the basin has been reclaimed in accordance with 35 Ill. Adm. Code 405.109 and the approved abandonment plan for the area.

Delete Outfall 008 as watershed to the basin will be controlled by the freshwater lake and will discharge through proposed Outfall 009.

Incorporation of eight (8) parcels of additional area totaling 84.68 acres.

Incorporation of previously issued State Operating permits which approved utilization of water treatment plant lime sludge for neutralization of potentially acidic coal refuse.

Incorporation of previously issued State Operating permits which approved disposal of coal combustion waste in conjunction with coal refuse disposal.

Additional approvals for utilization of water treatment plant lime sludge for neutralization of potentially acidic coal refuse and sewage treatment plant sludge as a soil amendment.

Permit transfer from Coulterville Coal Company, L.L.C. – Gateway Mine to Peabody Coulterville Mining, L.L.C. – Gateway Mine.

This facility has five (5) existing discharges which are located in Randolph and Perry County, Illinois. The following information identifies the discharge points, receiving streams, and stream classifications:

<u>Outfall</u>	<u>Receiving Stream</u>	<u>Latitude (North)</u>	<u>Longitude (West)</u>	<u>Stream Classification</u>
001	Unnamed trib. to Marys River	38° 09' 15"	89° 37' 00"	General Use
002	Unnamed trib. to Marys River	38° 10' 27"	89° 38' 01"	General Use
003	Unnamed trib. to Marys River	38° 10' 27"	89° 38' 01"	General Use
006	Unnamed trib. to Plum Creek	38° 10' 43"	89° 38' 45"	General Use
007	Unnamed trib. to Marys River	38° 09' 06"	89° 36' 49"	General Use

The stream segment IL\_02 of Marys River receiving the flow from the unnamed tributary into which Outfalls 001, 002, 003 and 007 discharges is not on the draft 2010 303(d) list of impaired waters.

The stream segment IL\_OZC-01 of Plum Creek receiving the flow from the unnamed tributary into which Outfall 006 discharges is not on the draft 2010 303(d) list of impaired waters.

Application is made for two (2) new discharges which are located in Randolph County, Illinois. The following information identifies the discharge points, receiving streams and stream classifications:

<u>Outfall</u>	<u>Receiving Stream</u>	<u>Latitude (North)</u>	<u>Longitude (West)</u>	<u>Stream Classification</u>
009	Unnamed tributary to Marys River	38° 09' 39"	89° 38' 22"	General Use
010	Unnamed tributary to Marys River	38° 05' 30"	89° 36' 12"	General Use

The stream segment IL\_02 of Marys River receiving the flow from the unnamed tributary into which Outfalls 009 and 010 discharge is not on the draft 2010 303(d) list of impaired waters.

The alkaline mine discharge from this facility shall be monitored and limited at all times as follows:

Outfall 001:

Discharge Condition	Parameters												
	Total Suspended Solids (3) (mg/l)		Iron (total) (3) (4) (mg/l)		pH (3) (S.U.)	Alkalinity/ Acidity (3)	Sulfate (1) (mg/l)	Chloride (mg/l)	Mn (total) (mg/l)	Hardness (5)	Mercury	Flow (MGD)	Settleable Solids (2) (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1442	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1442	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1442	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1442	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
  - II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
  - III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
  - IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.
- (1) Sulfate water quality standards and effluent limitations determined in accordance with 35 Ill. Adm. Code 302.208(h)
  - (2) Settleable solids are monitored only as a result of a discharge due to precipitation events which exceed a predetermined 24-hour duration or snow melt total. Settleable Solids effluent standards are contained in 35 Ill. Adm. Code 406.109 and 406.110.
  - (3) Effluent standards for mine discharges are contained in 35 Ill. Adm. Code 406.106.
  - (4) Discharges from Outfall 001, being approved before July 27, 1987, are subject to a 30-day average effluent limitation for Iron of 3.5 mg/l. Daily maximum effluent concentrations are calculated as twice the 30-day average.
  - (5) Hardness monitoring is required to determine the appropriateness of the sulfate permit limit.

The alkaline mine discharge from this facility shall be monitored and limited at all times as follows:

Outfalls 002, 003:

Discharge Condition	Parameters												
	Total Suspended Solids (3) (mg/l)		Iron (total) (3) (4) (mg/l)		pH (3) (S.U.)	Alkalinity/ Acidity (3)	Sulfate (1) (mg/l)	Chloride (mg/l)	Mn (total) (mg/l)	Hardness (5)	Mercury	Flow (MGD)	Settleable Solids (2) (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	500	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1000	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1000	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.0-9.0	Alk.>Acid	1000	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall at times of "low flow" or "no flow" conditions in the receiving stream as defined in Special Condition No. 13.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. At such time that receiving stream flow subsides to the degree that the mixing ratio specified in Special Condition No. 13 is not available, monitoring requirements and permit limitations shall revert to Discharge Condition 1.
  - (1) Sulfate water quality standards and effluent limitations determined in accordance with 35 Ill. Adm. Code 302.208(h)
  - (2) Settleable solids are monitored only as a result of a discharge due to precipitation events which exceed a predetermined 24-hour duration or snow melt total. Settleable Solids effluent standards are contained in 35 Ill. Adm. Code 406.109 and 406.110.
  - (3) Effluent standards for mine discharges are contained in 35 Ill. Adm. Code 406.106.
  - (4) Discharges from Outfalls 002 and 003, being approved before July 27, 1987, are subject to a 30-day average effluent limitation for Iron of 3.5 mg/l. Daily maximum effluent concentrations are calculated as twice the 30-day average.
  - (5) Hardness monitoring is required to determine the appropriateness of the sulfate permit limit.

The alkaline mine discharge from this facility shall be monitored and limited at all times as follows:

Outfall 006:

Discharge Condition	Parameters												
	Total Suspended Solids (3) (mg/l)		Iron (total) (3) (4) (mg/l)		pH (3) (S.U.)	Alkalinity/ Acidity (3)	Sulfate (1) (mg/l)	Chloride (mg/l)	Mn (total) (mg/l)	Hardness (5)	Mercury	Flow (MGD)	Settleable Solids (2) (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1271	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1271	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1271	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1271	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.
  - (1) Sulfate water quality standards and effluent limitations determined in accordance with 35 Ill. Adm. Code 302.208(h)
  - (2) Settleable solids are monitored only as a result of a discharge due to precipitation events which exceed a predetermined 24-hour duration or snow melt total. Settleable Solids effluent standards are contained in 35 Ill. Adm. Code 406.109 and 406.110.
  - (3) Effluent standards for mine discharges are contained in 35 Ill. Adm. Code 406.106.
  - (4) Discharges from Outfall 006, being approved before July 27, 1987, are subject to a 30-day average effluent limitation for Iron of 3.5 mg/l. Daily maximum effluent concentrations are calculated as twice the 30-day average.
  - (5) Hardness monitoring is required to determine the appropriateness of the sulfate permit limit.

The alkaline mine discharge from this facility shall be monitored and limited at all times as follows:

Outfall 007:

Discharge Condition	Parameters										
	Total Suspended Solids (3) (mg/l)		Iron (total) (3),(4) (mg/l)		pH (3) (S.U.)	Alkalinity/Acidity (3)	Sulfate (1) (mg/l)	Chloride (mg/l)	Hardness (5)	Flow (MGD)	Settleable Solids (2) (ml/l)
	30 day average	daily maximum	30 day average	daily maximum							
I	35	70	3.0	6.0	6.5 – 9.0	Alk.>Acid	1649	500	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0 – 9.0	-	1649	500	Monitor only	Measure When Sampling	0.5
III	-	-	-	-	6.0 – 9.0	-	1649	500	Monitor only	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5 – 9.0	Alk.>Acid	1649	500	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
  - II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
  - III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
  - IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.
- (1) Sulfate water quality standards and effluent limitations determined in accordance with 35 Ill. Adm. Code 302.208(h)
  - (2) Settleable solids are monitored only as a result of a discharge due to precipitation events which exceed a predetermined 24-hour duration or snow melt total. Settleable Solids effluent standards are contained in 35 Ill. Adm. Code 406.109 and 406.110.
  - (3) Effluent standards for mine discharges are contained in 35 Ill. Adm. Code 406.106.
  - (4) Discharges from Outfall 007, being approved after July 27, 1987, are subject to a 30-day average effluent limitation for Iron of 3.0 mg/l. Daily maximum effluent concentrations are calculated as twice the 30-day average.
  - (5) Hardness monitoring is required to determine the appropriateness of the sulfate permit limit.

The alkaline mine discharge from this facility shall be monitored and limited at all times as follows:

Outfall: 009

Discharge Condition	Parameters												
	Total Suspended Solids (3) (mg/l)		Iron (total) (3) (4) (mg/l)		pH (3) (S.U.)	Alkalinity/ Acidity (3)	Sulfate (1) (mg/l)	Chloride (mg/l)	Mn (total) (mg/l)	Hardness (5)	Mercury	Flow (MGD)	Settleable Solids (2) (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1759	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1759	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1759	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1759	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
  - II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24 hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
  - III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
  - IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.
- (1) Sulfate water quality standards and effluent limitations determined in accordance with 35 Ill. Adm. Code 302.208(h).
  - (2) Settleable solids are monitored only as a result of a discharge due to precipitation events which exceed a predetermined 24-hour duration or snowmelt total. Settleable solids effluent limitations for alkaline mine discharges are contained in 35 Ill. Adm. Code 406.110.
  - (3) Effluent standards for mine discharges are contained in 35 Ill. Adm. Code 406.106.
  - (4) Discharges from Outfall 009, being approved after July 27, 1987, are subject to a 30-day average effluent limitation for Iron of 3.0 mg/l. Daily maximum effluent concentrations are calculated as twice the 30-day average.
  - (5) Hardness monitoring is required to determine the appropriateness of the sulfate permit limit.

The alkaline mine discharge from this facility shall be monitored and limited at all times as follows:

Outfall: 010

Discharge Condition	Parameters												
	Total Suspended Solids (3) (mg/l)		Iron (total) (3) (4) (mg/l)		pH (3) (S.U.)	Alkalinity/Acidity (3)	Sulfate (1) (mg/l)	Chloride (mg/l)	Mn (total) (mg/l)	Hardness (5)	Mercury	Flow (MGD)	Settleable Solids (2) (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1351	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1351	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1351	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1351	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
  - II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24 hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
  - III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
  - IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.
- (1) Sulfate water quality standards and effluent limitations determined in accordance with 35 Ill. Adm. Code 302.208(h).
  - (2) Settleable solids are monitored only as a result of a discharge due to precipitation events which exceed a predetermined 24-hour duration or snowmelt total. Settleable solids effluent limitations for alkaline mine discharges are contained in 35 Ill. Adm. Code 406.110.
  - (3) Effluent standards for mine discharges are contained in 35 Ill. Adm. Code 406.106.
  - (4) Discharges from Outfall 010, being approved after July 27, 1987, are subject to a 30-day average effluent limitation for Iron of 3.0 mg/l. Daily maximum effluent concentrations are calculated as twice the 30-day average.
  - (5) Hardness monitoring is required to determine the appropriateness of the sulfate permit limit.

To assist you in identifying the location of the discharges, please refer to the attached map. The permit area for this facility is located in Sections 15, 21, 22, 26 and 27, Township 4 South, Range 5 West, and Section 12 & 13, Township 5 South, Range 5 West, Randolph County and Section 29, Township 4 South, Range 4 West, Perry County.



**Antidegradation Assessment  
Peabody Coulterville Mining, L.L.C. – Gateway Mine  
NPDES Permit No. IL0062189  
Perry and Randolph Counties**

The subject facility is the aboveground operations of an underground mine.

Outfall 005 and its 20 acre watershed are being removed from the permit since it has been reclaimed and is only stormwater.

Outfall 008 will be removed from the permit. Drainage presently reporting to Outfall 008 will be routed to the freshwater lake and will discharge through proposed Outfall 009. Newly established Outfall 009 (freshwater lake) will treat runoff from refuse areas, slurry ponds, soil stockpiles, borrow areas, preparation areas, the railroad loop and ancillary areas. This change in drainage control will ensure that effective sedimentation and best management practices are provided for this affected area. Water from the freshwater lake will be used in the coal preparation facility.

The proposed Outfall 010 will treat underground pumpage from the airshaft. The expected flow is 600 gallons/day which is from water flowing down the sides of the airshaft.

With the addition of proposed permitted areas and the removal of 20 acres associated with Outfall 005, the modified permit will increase 64.68 acres to a total proposed permitted area of 933.34 acres. Additional Permit Areas:

- A. IEPA Log No. 2356-06: refuse area expansion (15.5 acres)
- B. IEPA Log No. 9362-09: south airshaft (3.5 acres)
- C. Proposed rock dust hole #2 (1.0 acre)
- D. Proposed OMM Permit No. 160, IBR #3 borrow area (20.0 acres)
- E. Proposed borrow area west of IBR #3 borrow area (36.0)
- F. Proposed OMM Permit No. 53 area east of railroad access road (1.5 acres)
- G. IEPA Log No. 3283-05: access road construction (2.0 acres)
- H. IEPA Log No. 2355-06: helicopter pad (5.18 acres)

The information in this antidegradation assessment came from the September 7, 2010, letter from Peabody Coulterville Mining, L.L.C., the document dated October 13, 2010, "Analyses of Benefits and Alternatives to Lessen Water Quality Impact," an e-mail dated October 21, 2010, identifying the water quality of the seepage of water from the airshaft, and a e-mail dated January 20, 2011, identifying the correct acreages.

**Identification and Characterization of the Affected Water Body.**

The subject facility proposes to discharge through 009 and 010, at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. The unnamed tributaries to Marys River are classified as General Use Waters. According to the 2008 IDNR document "Integrating Multiple Taxa in a Biological Stream Rating System," the unnamed tributaries of Marys River are not biologically significant streams, nor are they given an integrity rating in that document. The unnamed tributaries of Marys River, tributary to Waterbody Segment, II-02 are not listed on the draft 2010 Illinois Integrated Water Quality Report and Section 303(d) List since they have not been assessed. Further, Marys River itself, Waterbody Segment, II-02, has been evaluated and it is not listed on the draft 2010 Illinois Integrated Water Quality Report and Section 303(d) List. Aquatic life use is fully supported. The unnamed tributaries of Marys River are not subject to enhanced dissolved oxygen standards.

The USGS Illinois Streamstats basin characteristics program gives a watershed size of 3.47 and 0.04 square miles for Outfalls 009 and 010 respectively at the discharge point on the unnamed tributaries of Marys River. According to the Illinois State Water Survey, the unnamed tributaries of Marys River in the area of the proposed mine discharges is likely to be 7Q1.1 zero flow streams. In this region of Illinois, 7Q1.1 zero flow streams are streams with a watershed area of 5 square miles or less. These streams will exhibit no flow for at least a continuous seven day period nine out of ten years. Aquatic life communities in these headwater streams are tolerant of the effects of drying. Depending on the rainfall received before biological surveys, either a very limited aquatic life community, or no community at all would be found. Given this flow regime, no additional biological characterization is required.

**Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.**

The mine outfalls will be classified as alkaline mine drainage. Suspended solids will be treated in the sedimentation ponds. Effluent discharged from these ponds will contain suspended solids loadings that are similar to those occurring from the land in its present use. Sulfates and chlorides will also increase the loading to the receiving streams as a result of the mining activities. Based on estimated effluent concentrations for this mine, chloride and sulfate will meet water quality standards in the discharged effluent. No allowed mixing was considered; limits for parameters regulated in the permit are set at the water quality standard.

**Fate and Effect of Parameters Proposed for Increased Loading.**

Suspended solids discharged will eventually be incorporated into bed sediments and will continue to move downstream. Sulfate and chloride will remain dissolved in the water and will move through the downstream continuum. Small amounts of these substances will be removed by organisms as these substances are necessary for life. No adverse impacts to the receiving streams will occur as all water quality standards will be met.

### **Purpose and Social & Economic Benefits of the Proposed Activity.**

The surface mine will extract the coal resources of the site. According to information given in a document dated October 13, 2010, entitled Peabody Coulterville Mining L.L.C. – Gateway Mine Analyses of Benefits and Alternatives to Lessen Water Quality Impact, continued operation of the existing mine will continue to provide jobs for 250 employees with an annual payroll of approximately \$29.4 million. In addition, other local businesses would also benefit from the wealth created by the mine. Local and state taxes are \$8.4 million as a result of the mine. Randolph County currently has an unemployment rate of 9.2%. In 2008, 14.4% of county residents were living below the poverty level.

### **Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.**

Stormwater control at surface coal mines is a matter of applying established best management practices. The final step in these practices involves sedimentation ponds to catch all runoff from the mine, settle out solids, provide a venue for pH adjustment if necessary and allow a controlled discharge of the effluent to the receiving stream. Prior steps involve the minimization of exposed earth and coal refuse to the elements. Alternatives to this system of prevention and treatment of pollutants have been evaluated by the mine company in a document dated October 13, 2010, entitled Peabody Coulterville Mining, L.L.C. – Gateway Mine Analyses of Benefits and Alternatives to Lessen Water Quality Impact and are summarized as follows:

*No Discharge.* Given the climate of Randolph County, the mine company concludes that evaporation is not a viable option for disposal of the stormwater runoff mine effluent. Some stormwater from the freshwater lake will be re-used at the mine as a source for coal washing. Containing and re-using all of the effluent is not viable given that there are no users for this water available that would want water after storm events.

*Discharge to POTW or Other Sources.* The nearest POTW is Coulterville, approximately 4 miles away and the only entity in the area that could possibly receive the stormwater. POTWs are not designed to treat wastewaters containing dissolved substances such as chloride or sulfate. Capacity at the Coulterville POTW would be insufficient to handle stormwater flows from the mine. This option is not feasible.

*Treat Water to Eliminate Pollutants.* Given the intermittent nature of stormwater runoff, facilities to treat the effluent for sulfate and chloride would be subject to large volumes for a few days per year and little or no effluent to treat for the remainder of the year. This has implications for sizing of the treatment facilities and maintenance of idled equipment that makes treatment for these substances infeasible. Additionally, each identified option has these or other drawbacks as described:

*Filtration.* Filtration will not remove dissolved substances, which are the primary potential pollutants present in sedimentation pond effluent.

*Chemical Precipitation.* Alkaline chemicals may be added to acid mine effluent to precipitate metals. The sludges produced must be disposed of and in some cases will contain hazardous materials added to the wastewater to attain precipitation. The chemistry of chemical precipitation does not lead itself to being turned on and off in relation to runoff events. The additives used require mining in their own right. The water discharged may contain these additives, such as aluminum, in elevated concentrations. These drawbacks make chemical precipitation infeasible.

*Ion Exchange.* Ordinary ion exchange would produce a high strength waste water that would have to be disposed of offsite. The ion exchange equipment would not operate successfully with an intermittent runoff-related effluent stream such as that found at coal mines. These drawbacks make ion exchange infeasible for use at the coal mine.

*Membrane Processes.* Standard reverse osmosis (RO) treatment would not be feasible as it has high energy and maintenance requirements and produces a waste stream that must be disposed of offsite. Membrane systems would not be amenable to sudden surges in wastewater typical of stormwater runoff events because they have limited capacity and are not easily started after periods of no flow. For these reasons membrane processes would be infeasible for use at the coal mine.

*Biological treatment in wetlands or reactors.* Anaerobic conditions must be maintained in wetlands for sulfate to be reduced by bacteria. Large wetlands would be required and treatment would be very hard to control. This method is not feasible for the conditions of intermittent flow present at this mine. Likewise, biological reactors must maintain bacteria under anaerobic conditions. The intermittent nature of the stormwater runoff effluent would also make this treatment infeasible as the bacteria would be difficult to maintain without a constant food supply.

*Cost Effective Sulfate Removal (CESR) process.* This is a proprietary technology that uses hydrated lime and proprietary chemicals to precipitate gypsum, metals and ettringite. Sludges would be produced that would require landfill disposal. The proprietary technology is still being developed. These drawbacks make the CESR process infeasible for use at the coal mine.

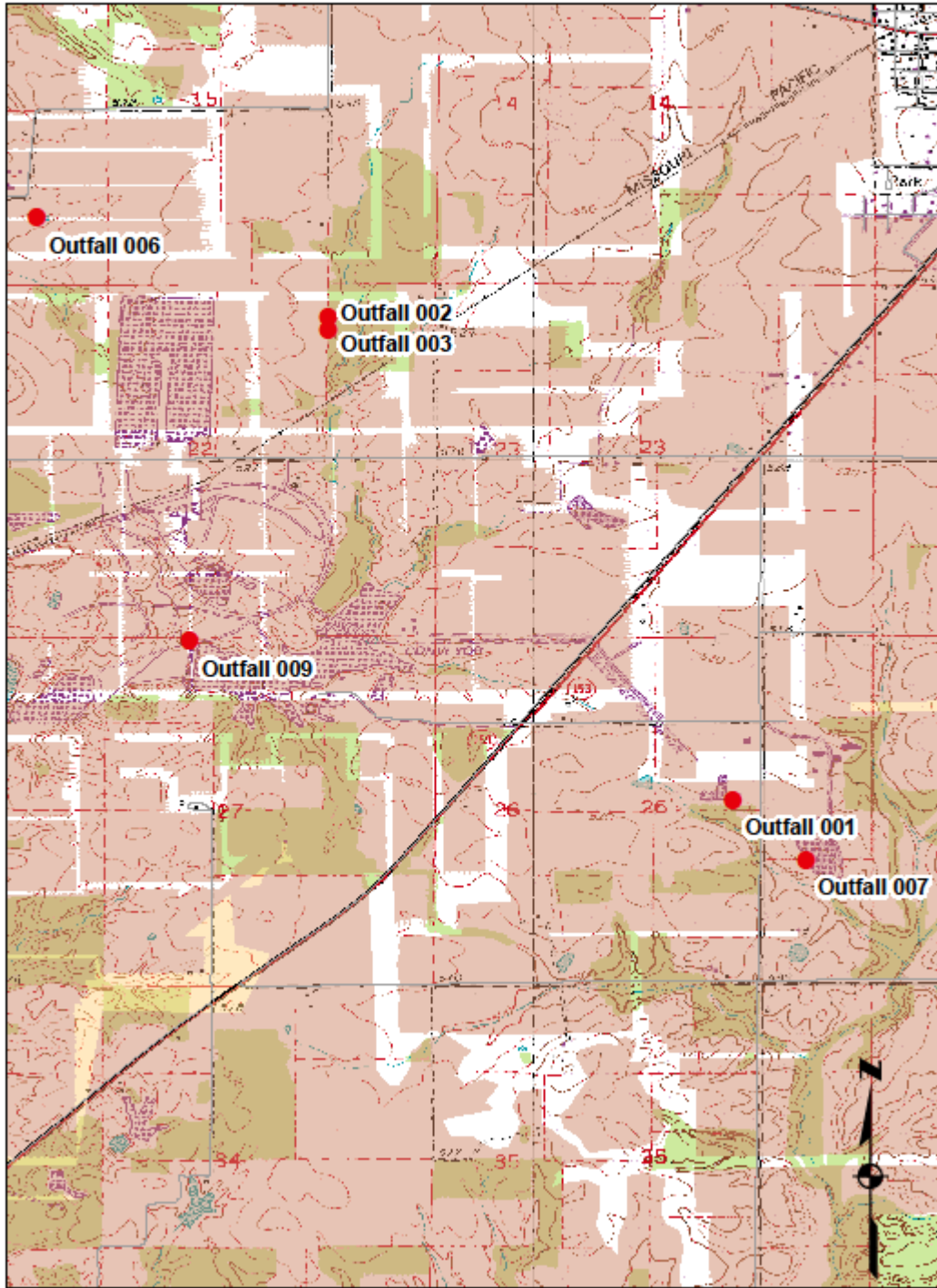
### **Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities.**

On October 21, 2010, the IDNR EcoCAT web-based tool was used and indicated that there were no endangered/threatened species present in the vicinity of the discharge. The IDNR EcoCAT web-based tool terminated the consultation.

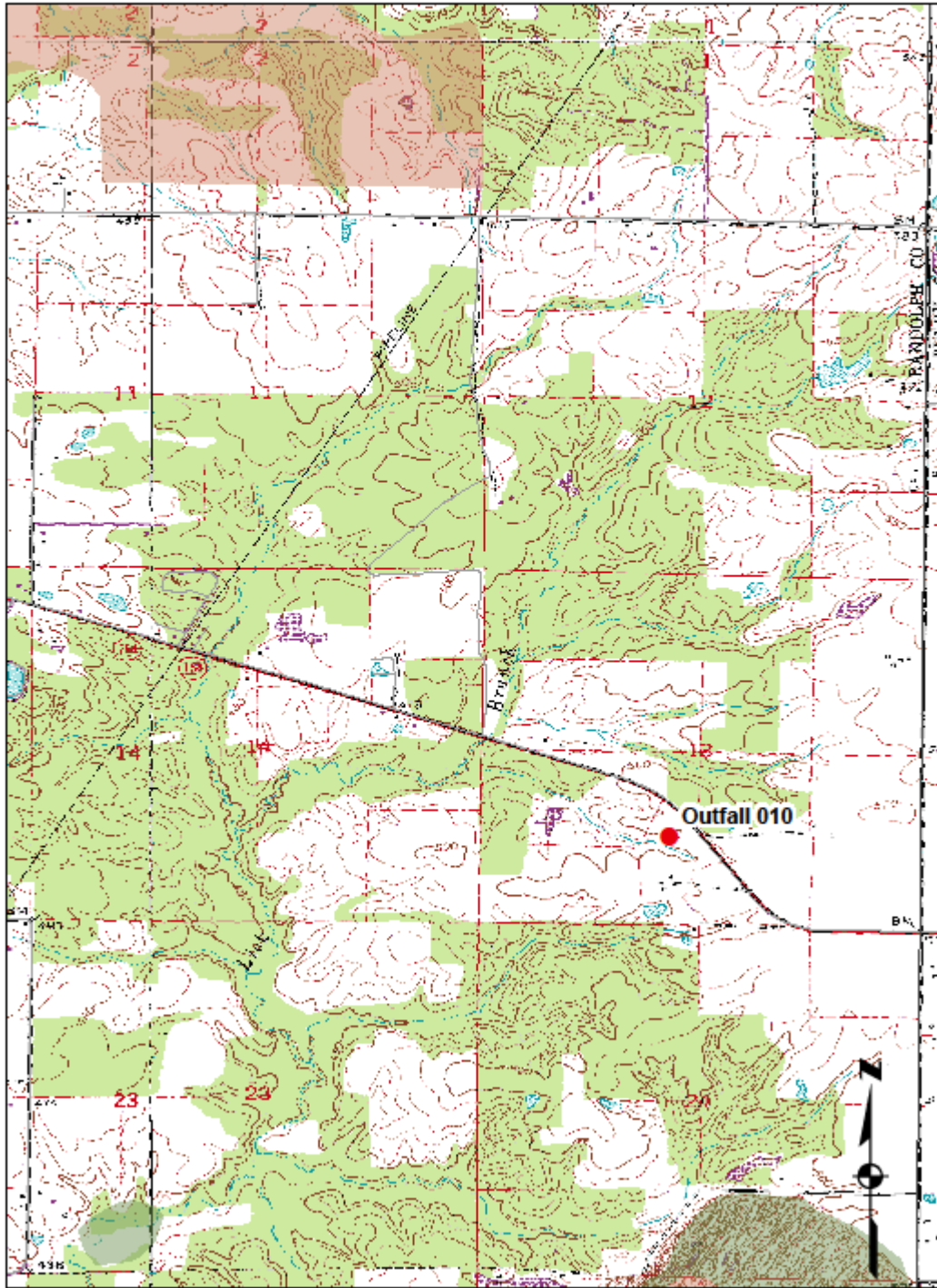
**Agency Conclusion.**

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving stream will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by providing jobs for 250 employees and local and regional economic development. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

**Peabody Coulterville Mining, L.L.C. - Gateway Mine**  
**NPDES No. IL0062189**  
Randolph County  
Township 4 South, Range 5 West



**Peabody Coulterville Mining, L.L.C. - Gateway Mine**  
**NPDES No. IL0062189**  
Randolph County  
Township 5 South, Range 5 West



NPDES Permit No. IL0062189  
Illinois Environmental Protection Agency  
Division of Water Pollution Control  
1021 North Grand Avenue, East  
P.O. Box 19276  
Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued and Modified NPDES Permit

Expiration Date:

Issue Date:  
Effective Date:

Name and Address of Permittee:

Peabody Coulterville Mining, L.L.C.  
c/o James F. Tolen  
7100 Eagle Crest Boulevard, Suite 200  
Evansville, IN 47715-8152

Facility Name and Address:

Peabody Coulterville Mining, L.L.C.  
Gateway Mine  
13101 Zeigler 11 Road  
Coulterville, Illinois 62237  
2 miles south of Coulterville  
(Perry and Randolph Counties)

Discharge Number and Classification:

001, 002, 003, 007, 009, 010 Alkaline Mine Drainage  
006 Alkaline Mine Drainage

Receiving waters

Unnamed tributary to Marys River  
Unnamed tributary to Plum Creek

In compliance with the provisions of the Illinois Environmental Protection Act, Subtitle C and/or Subtitle D Rules and Regulations of the Illinois Pollution Control Board, and the Clean Water Act, the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Ronald E. Morse, Manager  
Mine Pollution Control Program  
Bureau of Water

REM:LDC;jkb/5442c/03-12-10

NPDES Coal Mine Permit  
NPDES Permit No. IL0062189  
Effluent Limitations and Monitoring

From the effective date of this Permit until the expiration date, the effluent of the following discharge shall be monitored and limited at all times as follows:

Outfall\*: 001 (Alkaline Mine Drainage)

Discharge Condition	Parameters												
	Total Suspended Solids (mg/l) ***		Iron (total) (mg/l) ***		pH** (S.U.) ***	Alkalinity/ Acidity ***	Sulfate (mg/l) ***	Chloride (mg/l) ***	Mn (total) (mg/l) ***	Hardness ***	Mercury see Special Condition No. 16	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1442	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1442	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1442	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1442	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method.

\*\*\* There shall be a minimum of nine (9) samples collected during the quarter when the pond is discharging. Of these 9 samples, a minimum of one sample each month shall be taken during either Discharge Condition I or IV should such discharge condition occur. A "no flow" situation is not considered to be a sample of the discharge. In the event that Discharge Conditions II and/or III occur, grab sample of each discharge caused by the above precipitation events (Discharge Conditions II and/or III) shall be taken and analyzed for the parameters identified in the table above during at least 3 separate events each quarter. For quarters in which there are less than 3 such precipitation events resulting in discharges, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s). Should a sufficient number of discharge events occur during the quarter, the remaining three (3) quarterly samples may be taken during any of the Discharge Conditions described above.

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 12 for the discharges from Outfall 001 and Marys River receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.

NPDES Coal Mine Permit  
 NPDES Permit No. IL0062189  
 Effluent Limitations and Monitoring

From the effective date of this Permit until the expiration date, the effluent of the following discharge shall be monitored and limited at all times as follows:

Outfalls\*: 002, 003 (Alkaline Mine Drainage)

Discharge Condition	Parameters												
	Total Suspended Solids (mg/l) ***		Iron (total) (mg/l) ***		pH** (S.U.) ***	Alkalinity/ Acidity ***	Sulfate (mg/l) ***	Chloride (mg/l) ***	Mn (total) (mg/l) ***	Hardness ***	Mercury see Special Condition No. 16	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	500	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1000	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1000	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.0-9.0	Alk.>Acid	1000	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall at times of "low flow" or "no flow" conditions in the receiving stream as defined in Special Condition No. 13.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. At such time that receiving stream flow subsides to the degree that the mixing ratio specified in Special Condition No. 13 is not available, monitoring requirements and permit limitations shall revert to Discharge Condition 1.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method.

\*\*\* There shall be a minimum of nine (9) samples collected during the quarter when the pond is discharging. Of these 9 samples, a minimum of one sample each month shall be taken during either Discharge Condition I or IV. A "no flow" situation is not considered to be a sample of the discharge. A grab sample of each discharge caused by the above precipitation events (Discharge Conditions II and III) shall be taken and analyzed for the parameters identified in the table above during at least 3 separate events each quarter. For quarters in which there are less than 3 such precipitation events resulting in discharges, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s). The remaining three (3) samples may be taken during any of the Discharge Conditions described above.

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No.13 for the discharges from Outfalls 002 and 003 and Marys River receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.



NPDES Coal Mine Permit  
 NPDES Permit No. IL0062189  
 Effluent Limitations and Monitoring

From the effective date of this Permit until the expiration date, the effluent of the following discharge shall be monitored and limited at all times as follows:

Outfall\*: 006 (Alkaline Mine Drainage)

Discharge Condition	Parameters												
	Total Suspended Solids (mg/l) ***		Iron (total) (mg/l) ***		pH** (S.U.) ***	Alkalinity/ Acidity ***	Sulfate (mg/l) ***	Chloride (mg/l) ***	Mn (total) (mg/l) ***	Hardness ***	Mercury see Special Condition No. 16	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1271	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1271	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1271	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1271	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method.

\*\*\* There shall be a minimum of nine (9) samples collected during the quarter when the pond is discharging. Of these 9 samples, a minimum of one sample each month shall be taken during either Discharge Condition I or IV. A "no flow" situation is not considered to be a sample of the discharge. A grab sample of each discharge caused by the above precipitation events (Discharge Conditions II and III) shall be taken and analyzed for the parameters identified in the table above during at least 3 separate events each quarter. For quarters in which there are less than 3 such precipitation events resulting in discharges, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s). The remaining three (3) samples may be taken during any of the Discharge Conditions described above.

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No.12 for the discharges from Outfall 006 and Plum Creek receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.

NPDES Coal Mine Permit  
NPDES Permit No. IL0062189  
Effluent Limitations and Monitoring

From the effective date of this Permit until the expiration date, the effluent of the following discharge shall be monitored and limited at all times as follows:

Outfall\*: 007 (Alkaline Mine Drainage)

Discharge Condition	Parameters										
	Total Suspended Solids (mg/l) ***		Iron (total) (mg/l) ***		pH** (S.U.)	Alkalinity/Acidity	Sulfate (mg/l) ***	Chloride (mg/l) ***	Hardness ***	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum	3/month	1/month					
I	35	70	3.0	6.0	6.5 – 9.0	Alk.>Acid	1649	500	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0 – 9.0	-	1649	500	Monitor only	Measure When Sampling	0.5
III	-	-	-	-	6.0 – 9.0	-	1649	500	Monitor only	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5 – 9.0	Alk.>Acid	1649	500	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method.

\*\*\* There shall be a minimum of nine (9) samples collected during the quarter when the pond is discharging. Of these 9 samples, a minimum of one sample each month shall be taken during either Discharge Condition I or IV. A "no flow" situation is not considered to be a sample of the discharge. A grab sample of each discharge caused by the above precipitation events (Discharge Conditions II and III) shall be taken and analyzed for the parameters identified in the table above during at least 3 separate events each quarter. For quarters in which there are less than 3 such precipitation events resulting in discharges, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s). The remaining three (3) samples may be taken during any of the Discharge Conditions described above.

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No.12 for the discharges from Outfall 007 and Marys River receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.

NPDES Coal Mine Permit  
NPDES Permit No. IL0062189  
Effluent Limitations and Monitoring

From the effective date of this Permit until the expiration date, the effluent of the following discharge shall be monitored and limited at all times as follows:

Outfall\*: 009 (Alkaline Mine Drainage)

Discharge Condition	Parameters												
	Total Suspended Solids (mg/l) ***		Iron (total) (mg/l) ***		pH** (S.U.) ***	Alkalinity/ Acidity ***	Sulfate (mg/l) ***	Chloride (mg/l) ***	Mn (total) (mg/l) ***	Hardness ***	Mercury see Special Condition No. 16	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1759	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1759	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1759	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1759	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method.

\*\*\* There shall be a minimum of nine (9) samples collected during the quarter when the pond is discharging. Of these 9 samples, a minimum of one sample each month shall be taken during either Discharge Condition I or IV should such discharge condition occur. A "no flow" situation is not considered to be a sample of the discharge. In the event that Discharge Conditions II and/or III occur, grab sample of each discharge caused by the above precipitation events (Discharge Conditions II and/or III) shall be taken and analyzed for the parameters identified in the table above during at least 3 separate events each quarter. For quarters in which there are less than 3 such precipitation events resulting in discharges, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s). Should a sufficient number of discharge events occur during the quarter, the remaining three (3) quarterly samples may be taken during any of the Discharge Conditions described above.

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 12 for the discharges from Outfall 009 and Marys River receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.

NPDES Coal Mine Permit  
NPDES Permit No. IL0062189  
Effluent Limitations and Monitoring

From the effective date of this Permit until the expiration date, the effluent of the following discharge shall be monitored and limited at all times as follows:

Outfall\*: 010 (Alkaline Mine Drainage)

Discharge Condition	Parameters												
	Total Suspended Solids (mg/l) ***		Iron (total) (mg/l) ***		pH** (S.U.) ***	Alkalinity/ Acidity ***	Sulfate (mg/l) ***	Chloride (mg/l) ***	Mn (total) (mg/l) ***	Hardness ***	Mercury see Special Condition No. 16	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1351	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1351	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1351	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1351	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method.

\*\*\* There shall be a minimum of nine (9) samples collected during the quarter when the pond is discharging. Of these 9 samples, a minimum of one sample each month shall be taken during either Discharge Condition I or IV should such discharge condition occur. A "no flow" situation is not considered to be a sample of the discharge. In the event that Discharge Conditions II and/or III occur, grab sample of each discharge caused by the above precipitation events (Discharge Conditions II and/or III) shall be taken and analyzed for the parameters identified in the table above during at least 3 separate events each quarter. For quarters in which there are less than 3 such precipitation events resulting in discharges, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s). Should a sufficient number of discharge events occur during the quarter, the remaining three (3) quarterly samples may be taken during any of the Discharge Conditions described above.

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 12 for the discharges from Outfall 010 and Marys River receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.

NPDES Coal Mine Permit  
 NPDES Permit No. IL0062189  
 Effluent Limitations and Monitoring

Upon completion of Special Condition 9 and approval from the Agency, the effluent of the following discharges shall be monitored and limited at all times as follows:

Outfall\*: 001 (Reclamation Area Drainage)

Discharge Condition	Parameters					
	pH** (S.U.)	Sulfate (mg/l)	Chloride (mg/l)	Hardness	Flow (MGD)	Settleable Solids (ml/l)
	1/month	1/month	1/month	1/month		1/month
I	6.5 – 9.0	1442	500	Monitor only	Measure When Sampling	0.5
II	6.0 – 9.0	1442	500	Monitor only	Measure When Sampling	0.5
III	6.0 – 9.0	1442	500	Monitor only	Measure When Sampling	-
IV	6.5 – 9.0	1442	500	Monitor only	Measure When Sampling	0.5

- I Dry weather discharge (base flow, if present) from the outfall.
- II Any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations. The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.109(c), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method. A "no flow" situation is not considered to be a sample of the discharge.

One sample per month (1/month) shall be collected under either Discharge Condition I, II or IV and analyzed for the parameters identified in the table above. In addition, at least three (3) grab samples shall be taken each quarter from separate precipitation events under Discharge Condition III and analyzed for the parameters indicated in the above table. For quarters in which there are less than 3 such precipitation events, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s).

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

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\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No.12 for the discharges from Outfall 001 and Marys River receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.

NPDES Coal Mine Permit  
 NPDES Permit No. IL0062189  
 Effluent Limitations and Monitoring

Upon completion of Special Condition 9 and approval from the Agency, the effluent of the following discharges shall be monitored and limited at all times as follows:

Outfalls\*: 002, 003 (Reclamation Area Drainage)

Discharge Condition	Parameters					
	pH** (S.U.)	Sulfate (mg/l)	Chloride (mg/l)	Hardness	Flow (MGD)	Settleable Solids (ml/l)
	1/month	1/month	1/month	1/month		1/month
I	6.5 – 9.0	500	500	Monitor only	Measure When Sampling	0.5
II	6.0 – 9.0	500	500	Monitor only	Measure When Sampling	0.5
III	6.0 – 9.0	500	500	Monitor only	Measure When Sampling	-
IV	6.5 – 9.0	500	500	Monitor only	Measure When Sampling	0.5

- I Dry weather discharge (base flow, if present) from the outfall.
- II Any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations. The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.109(c), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method. A "no flow" situation is not considered to be a sample of the discharge.

One sample per month (1/month) shall be collected under either Discharge Condition I, II or IV and analyzed for the parameters identified in the table above. In addition, at least three (3) grab samples shall be taken each quarter from separate precipitation events under Discharge Condition III and analyzed for the parameters indicated in the above table. For quarters in which there are less than 3 such precipitation events, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s).

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

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\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No.14 for the discharges from Outfalls 002 and 003 and Marys River receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.

NPDES Coal Mine Permit  
NPDES Permit No. IL0062189  
Effluent Limitations and Monitoring

Upon completion of Special Condition 9 and approval from the Agency, the effluent of the following discharges shall be monitored and limited at all times as follows:

Outfall\*: 006 (Reclamation Area Drainage)

Discharge Condition	Parameters					
	pH** (S.U.)	Sulfate (mg/l)	Chloride (mg/l)	Hardness	Flow (MGD)	Settleable Solids (ml/l)
	1/month	1/month	1/month	1/month		1/month
I	6.5 – 9.0	1271	500	Monitor only	Measure When Sampling	0.5
II	6.0 – 9.0	1271	500	Monitor only	Measure When Sampling	0.5
III	6.0 – 9.0	1271	500	Monitor only	Measure When Sampling	-
IV	6.5 – 9.0	1271	500	Monitor only	Measure When Sampling	0.5

- I Dry weather discharge (base flow, if present) from the outfall.
- II Any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations. The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.109(c), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method. A "no flow" situation is not considered to be a sample of the discharge.

One sample per month (1/month) shall be collected under either Discharge Condition I, II or IV and analyzed for the parameters identified in the table above. In addition, at least three (3) grab samples shall be taken each quarter from separate precipitation events under Discharge Condition III and analyzed for the parameters indicated in the above table. For quarters in which there are less than 3 such precipitation events, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s).

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

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\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No.12 for the discharges from Outfall 006 and Plum Creek receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.

NPDES Coal Mine Permit  
NPDES Permit No. IL0062189  
Effluent Limitations and Monitoring

Upon completion of Special Condition 9 and approval from the Agency, the effluent of the following discharges shall be monitored and limited at all times as follows:

Outfall\*: 007 (Reclamation Area Drainage)

Discharge Condition	Parameters					
	pH** (S.U.)	Sulfate (mg/l)	Chloride (mg/l)	Hardness	Flow (MGD)	Settleable Solids (ml/l)
	1/month	1/month	1/month	1/month		1/month
I	6.5 – 9.0	1649	500	Monitor only	Measure When Sampling	0.5
II	6.0 – 9.0	1649	500	Monitor only	Measure When Sampling	0.5
III	6.0 – 9.0	1649	500	Monitor only	Measure When Sampling	-
IV	6.5 – 9.0	1649	500	Monitor only	Measure When Sampling	0.5

- I Dry weather discharge (base flow, if present) from the outfall.
- II Any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations. The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.109(c), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method. A "no flow" situation is not considered to be a sample of the discharge.

One sample per month (1/month) shall be collected under either Discharge Condition I, II or IV and analyzed for the parameters identified in the table above. In addition, at least three (3) grab samples shall be taken each quarter from separate precipitation events under Discharge Condition III and analyzed for the parameters indicated in the above table. For quarters in which there are less than 3 such precipitation events, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s).

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

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\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No.12 for the discharges from Outfall 007 and Marys River receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.



NPDES Coal Mine Permit  
NPDES Permit No. IL0062189  
Effluent Limitations and Monitoring

Upon completion of Special Condition 9 and approval from the Agency, the effluent of the following discharge shall be monitored and limited at all times as follows:

Outfall\*: 009 (Reclamation Area Drainage)

Discharge Condition	Parameters					
	pH** (S.U.) ***	Sulfate (mg/l) ***	Chloride (mg/l) ***	Hardness ***	Flow (MGD)	Settleable Solids (ml/l) ***
I	6.5-9.0	1759	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	1759	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	1759	500	Monitor only	Measure When Sampling	-
IV	6.0-9.0	1759	500	Monitor only	Measure When Sampling	0.5

- I Dry weather discharge (base flow, if present) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.109(b), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations. The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.109(c), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For reclamation area discharges, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method. A "no flow" situation is not considered to be a sample of the discharge.

\*\*\* One sample per month (1/month) shall be collected if and/or when a discharge occurs under either Discharge Condition I, II or IV and analyzed for the parameters identified in the table above. In addition, at least three (3) grab samples shall be taken each quarter from separate precipitation events under Discharge Condition III and analyzed for parameters indicated in the above table. For quarters in which there are less than 3 such precipitation events, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s).

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

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\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 12 for the discharges from Outfall 009 and Marys River receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.

NPDES Coal Mine Permit  
NPDES Permit No. IL0062189  
Effluent Limitations and Monitoring

Upon completion of Special Condition 9 and approval from the Agency, the effluent of the following discharge shall be monitored and limited at all times as follows:

Outfall\*: 010 (Reclamation Area Drainage)

Discharge Condition	Parameters					
	pH** (S.U.) ***	Sulfate (mg/l) ***	Chloride (mg/l) ***	Hardness ***	Flow (MGD)	Settleable Solids (ml/l) ***
I	6.5-9.0	1351	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	1351	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	1351	500	Monitor only	Measure When Sampling	-
IV	6.0-9.0	1351	500	Monitor only	Measure When Sampling	0.5

- I Dry weather discharge (base flow, if present) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.109(b), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations. The 10-year, 24-hour precipitation event for this area is considered to be 4.76 inches.
- III In accordance with 35 Ill. Adm. Code 406.109(c), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For reclamation area discharges, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

Sampling during all Discharge Conditions shall be performed utilizing the grab sampling method. A "no flow" situation is not considered to be a sample of the discharge.

\*\*\* One sample per month (1/month) shall be collected if and/or when a discharge occurs under either Discharge Condition I, II or IV and analyzed for the parameters identified in the table above. In addition, at least three (3) grab samples shall be taken each quarter from separate precipitation events under Discharge Condition III and analyzed for parameters indicated in the above table. For quarters in which there are less than 3 such precipitation events, a grab sample of the discharge shall be required whenever such precipitation event(s) occur(s).

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream.

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\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 12 for the discharges from Outfall 010 and Marys River receiving such discharges.

\*\* No discharge is allowed from any above referenced permitted outfall during "low flow" or "no flow" conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.

NPDES Coal Mine Permit  
 NPDES Permit No. IL0062189  
 Effluent Limitations and Monitoring

Upon completion of Special Condition 10 and approval from the Agency, the effluent of the following discharge shall be monitored and limited at all times as follows:

Outfalls\*: 001, 002, 003, 006, 007, 009, 010 (Stormwater Discharge)

Parameters	
pH* (S.U.) 1/year	Settleable Solids (ml/l) 1/year
6.0 – 9.0	0.5

Storm water discharge monitoring is subject to the following reporting requirements:

Analysis of samples must be submitted with second quarter Discharge Monitoring Reports.

If discharges can be shown to be similar, a plan may be submitted by November 1 of each year preceding sampling to propose grouping of similar discharges and/or updated previously submitted groupings. If updating of a previously submitted plan is not necessary, a written notification to the Agency, indicating such is required. Upon approval from the Agency, one representative sample for each group may be submitted.

Annual storm water monitoring is required for all discharges until Final SMCRA Bond is released and approval to cease such monitoring is obtained from the Agency.

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\* No discharge is allowed from any above referenced permitted outfalls during “low flow” or “no flow” conditions in the receiving stream unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.204 for pH.

NPDES Permit No. IL0062189

Construction Authorization No. 8161-00

C.A. Date: January 25, 2011

Authorization is hereby granted to the above designee to construct and operate the mine and mine refuse area described as follows:

The surface facilities of an underground mine containing 933.34 acres, located in Sections 15, 21, 22, 26 and 27, T4S, R5W, and Section 12 & 13, T5S, R5W, Randolph County and Section 29, T4S, R4W, Perry County. The total area cited herein includes modifications discussed below.

Facilities located at this site include a preparation plant with a closed circuit fine coal (slurry) system, rail loop, fine and course refuse disposal areas, fresh water lake, access roads, buildings, drainage control and piping systems and overland belt conveyer system.

As described in IEPA Log Nos. 5174-03 and 3223-05 the surface facilities have been modified to incorporate an additional coal stockpile and coal load-out facility and remove the thickener pond, respectively. All runoff from these modified surface facilities is tributary to existing sedimentation basins.

In accordance with IEPA Log No. 2358-06 a pole building with concrete pad and topsoil stockpiles will be constructed. These additions to the surface facilities located within the watershed of freshwater lake and Outfall 009.

The following additional areas are being incorporated into the NPDES Permit under this Construction Authorization.

As proposed and described in IEPA Log No. 3283-05, 2.0 acres are incorporated into this permit to accommodate construction of an access road. Alternate sediment control measures will be used for this area instead of a sedimentation basin. All runoff from this area shall be monitored in accordance with stormwater monitoring requirements of Special Condition No. 11 of this NPDES Permit. This additional area is included in the total permit acreage cited above.

An additional 5.18 acres as described in IEPA Log No. 2355-06 are incorporated into this permit for construction of a helicopter pad. Alternate sediment control measures will be used for this area instead of a sedimentation basin. All runoff from this area shall be monitored in accordance with stormwater monitoring requirements of Special Condition No. 11 of this NPDES Permit. This additional area is included in the total permit acreage cited above.

As proposed and described in IEPA Log No. 2356-06 and 2356-06-A, 15.5 acres are incorporated in to this permit for development and expansion of the fine coal (slurry) refuse disposal area. The fine coal refuse disposal expansion will consist of the development of Slurry Cell No. 4 as described and depicted in IEPA Log No 3469-05. Runoff from the additional area and the expanded slurry disposal operation is tributary to basin and Outfall 006. Refer to Condition No. 13 for groundwater monitoring requirements. This additional area is included in the total permit acreage cited above.

As proposed in IEPA Log No. 9362-09 and previously approved under Subtitle D Permit No. 2010-MO-9362, 3.5 acres is incorporated into this permit for development of an airshaft for the underground mining operations. Underground pumpage from this airshaft will be controlled by sedimentation basin with discharge designated as Outfall 010. Surface runoff from this area will be controlled with the use of mulch, silt fencing and/or straw bale containment check dams and by timely revegetation of all areas distributed for construction activities (with exception of rocked areas) and shall be monitored in accordance with stormwater monitoring requirements of Special Condition No. 11 of this NPDES Permit. This additional area is included in the total permit acreage cited above.

As proposed in IEPA Log No. 9561-09, 20.00 acres are incorporated into this permit for a soil borrow area to obtain cover material for future reclamation of refuse disposal Cells 1, 2, 3 and 4. Runoff from this additional area will be tributary to Pond and Outfall 009. This additional area is included in the total permit acreage cited above.

As proposed in IEPA Log No. 8233-10, 1.0 acre is incorporated into this permit for installation of a rock dust borehole facility. Alternate sediment control measures will be used for this area instead of a sedimentation basin. All runoff from this area shall be monitored in accordance with stormwater monitoring requirements of Special Condition No. 11 of this NPDES Permit. This additional area is included in the total permit acreage cited above.

An additional 36.00 acres located immediately west of the 20.00 acre area depicted in IEPA Log No. 9561-09 as described above are being incorporated into this NPDES Permit as a potential future soil borrow area. No disturbance is approved within this area until such time that surface drainage control and operation plans are submitted and approved by this Agency. This additional area is included in the total permit acreage cited above.

An additional 1.5 acres located adjacent to the railroad loop access road is being incorporated into this NPDES Permit. This additional area is included in the total permit acreage cited above.

NPDES Permit No. IL0062189

Construction Authorization No. 8161-00

C.A. Date: January 25, 2011

Pursuant to information contained in IEPA Log No. 1552-07, monitoring of Outfall 005 has been terminated and the 20.00 acre area tributary to this basin has been abandoned from this permit as the watershed to this basin has been reclaimed in accordance with 35 Ill. Adm. Code 405.109 and the approved abandonment plan for the area; therefore, Outfall 005 has been deleted from this Permit.

Surface drainage control at this facility consists of seven (7) sedimentation basins with discharges designated and located as indicated below:

Location and receiving stream of the Outfalls at this facility is as follows:

Outfall Number	Latitude			Longitude			Receiving Water
	DEG	MIN	SEC	DEG	MIN	SEC	
001	38°	09'	15"	89°	37'	00"	Unnamed tributary to Marys River
002	38°	10'	27"	89°	38'	01"	Unnamed tributary to Marys River
003	38°	10'	27"	89°	38'	01"	Unnamed tributary to Marys River
006	38°	10'	43"	89°	38'	45"	Unnamed tributary to Plum Creek
007	38°	09'	06"	89°	36'	49"	Unnamed tributary to Marys River
009	38°	09'	39"	89°	38'	22"	Unnamed tributary to Marys River
010	38°	05'	30"	89°	36'	12"	Unnamed tributary to Marys River

Basin and Outfall 001 receives runoff from the belt slope and transfer area. Outfalls 002, 003 and 006 receive runoff from the refuse disposal outslope areas and potential refuse contact drainage. Basin with discharge designated as Outfall 007 will control runoff from the office and parking lot, storage areas, shaft and underground pumpage. Drainage previously reporting to Outfall 008 will be routed to the freshwater lake with discharge designated as Outfall 009. Runoff from the two (2.0) acre area downstream of the diversion ditch to the freshwater lake will be monitored in accordance with stormwater monitoring requirements of Special Condition No. 11. Basin and Outfall 009 will receive runoff from refuse areas, slurry ponds, soil stockpiles, borrow areas, preparation plant area, railroad loop and ancillary areas. As drainage previously controlled by Outfall 008 is being routed to Outfall 009, Outfall 008 has been deleted from this permit.

Outfall 010 (south airshaft) will treat underground pumpage from the airshaft.

Revised open channel spillway design information for Outfall 006 is contained in IEPA Log No. 6057-02. The proposed open channel spillway will replace the original perforated trickle tube discharge.

The following previous approvals for utilization of water treatment plant lime sludge are hereby incorporated into this NPDES Permit:

As previously approved under Subtitle D Permit No. 2006-MD-3456 and 2006-MD-3456-1, water treatment plant lime sludge from the City of Collinsville and Rend Lake Conservancy District may be utilized for neutralization of potentially acidic coarse and fine (slurry) refuse areas as described in IEPA Log No. 3456-05 and 2237-06, respectively. Utilization of lime sludge from these sources is subject to Condition No. 12.

As proposed and described in IEPA Log No. 9071-09, water treatment plant lime sludge from the Liberty Missouri Treatment Plant may be utilized as an amendment material on the coarse refuse and fine coal (slurry) disposal areas. Lime sludge may be applied to areas identified in IEPA Log No. 3456-05 as noted for previously approved materials. Utilization of water treatment lime sludge for coal refuse neutralization is subject to requirements of Condition No. 12.

Application rates for any combination of water treatment plant lime sludge shall not exceed 500 tons per acre on coarse refuse material or 150 tons per acre on fine coal refuse material.

As proposed in IEPA Log No. 2201-06, sewage treatment plant sludge from the Village of Coulterville may be used as a soil amendment in Cell 1 of the coarse refuse disposal area. Utilization of the material shall be limited to 6300 tons per year with a maximum application rate of 150 tons per acre.

NPDES Permit No. IL0062189

Construction Authorization No. 8161-00

C.A. Date: January 25, 2011

The following previous approvals for coal combustion waste disposal are hereby incorporated into this NPDES Permit:

As previously proposed in IEPA Log Nos. 6440-02 and 2158-06 and approved under Subtitle D Permit Nos. 2002-MW-6440-1 and 2002-MW-6440-2, coal combustion waste from sources identified as Anheuser Busch, Inc. and AE Staley-Danville is approved for disposal in coarse refuse disposal area Cell Nos. 1 and 2. Disposal of CCW from AE Staley-Danville shall be limited to 6000 tons annually. All disposal activity shall be as described and depicted in IEPA Log Nos. 0080-98 and 0235-98 and shall be subject to the requirements of the Condition No. 13. Monitoring of groundwater Well Nos. W3-04, W3-08 and W3-09 shall be as outlined in Condition No. 14.

As described in IEPA Log No. 0146-08 and previously approved under Subtitle D Permit No. 2008-MW-0146, coal combustion waste from sources identify as University of Illinois (gypsum/ash mixture) and SIU Carbondale (fly/bottom ash mixture) is approved for disposal in conjunction with other approved sources in accordance with procedures outlined in IEPA Log No. 0080-98. Annual disposal of CCW from University of Illinois and SIU – Carbondale shall be limited to 37,000 and 12,000 tons, respectively. In addition CCW from Anheuser Busch, Inc., previously approved for disposal, shall be limited to 25,000 tons annually. Disposal of CCW from the sources approved herein shall be subject to the requirements of the Condition No. 13. Monitoring of groundwater Well Nos. W3-04, W3-08 and W3-09, associated with CCW disposal, shall be as outlined in Condition No. 14.

Groundwater monitoring requirements for this facility are outlined in Condition No. 14.

This Permit is being transferred from Coulterville Coal Company, L.L.C.-Gateway Mine to Peabody Coulterville Mining, L.L.C.-Gateway Mine.

All water remaining upon abandonment must meet the requirements of 35 Ill. Adm. Code 406.202. For the constituents not covered by Parts 302 or 303, all water remaining upon abandonment must meet the requirements of 35 Ill. Adm. Code 406.106.

This Construction Authorization supersedes and replaces Construction Authorization No. 7086-91 and State Permit Nos. 2002-MW-6440, 2002-MW-6440-2, 2006-MD-3456 and 2006-MD-3456-1, 2008-MW-0146 and 2010-MO-9362 previously issued for the herein permitted facilities and activities.

The abandonment plan shall be executed and completed in accordance with 35 Ill. Adm. Code 405.109.

This Authorization is issued subject to the following Conditions. If such Conditions require additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval to secure issuance of a Supplemental Authorization to Construct.

1. If any statement or representation is found to be incorrect, this permit may be revoked and the permittee thereupon waives all rights thereunder.
2. The issuance of this permit (a) shall not be considered as in any manner affecting the title of the premises upon which the mine or mine refuse area is to be located; (b) does not release the permittee from any liability for damage to person or property caused by or resulting from the installation, maintenance or operation of the proposed facilities; (c) does not take into consideration the structural stability of any units or parts of the project; and (d) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or with applicable local laws, regulations or ordinances.
3. Final plans, specifications, application and supporting documents as submitted by the person indicated on Page 1 as approved shall constitute part of this permit and are identified by Log Nos. 5578-03, 5578-03-D and 0184-08 in the records of the Illinois Environmental Protection Agency.
4. There shall be no deviations from the approved plans and specifications unless revised plans, specifications and application shall first have been submitted to the Illinois Environmental Protection Agency and a supplemental permit issued.
5. The permit holder shall notify the Environmental Protection Agency (217/782-3637) 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. (217/782-3637 for calls between the hours of 5:00 p.m. to 8:30 a.m. and on weekends.)
6. The termination of an NPDES discharge monitoring point or cessation of monitoring of an NPDES discharge is not authorized by this Agency until the permittee submits adequate justification to show what alternate treatment is provided or that untreated drainage will meet applicable effluent and water quality standards.

NPDES Permit No. IL0062189

Construction Authorization No. 8161-00

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7. Initial construction activities in areas to be disturbed shall be for collection and treatment facilities only. Prior to the start of other activities, surface drainage controls shall be constructed and operated to avoid violations of the Act or Subtitle D. At such time as runoff water is collected in the sedimentation pond, a sample shall be collected and analyzed, with the results sent to this Agency. Should additional treatment be necessary to meet the standards of 35 Ill. Adm. Code 406.106, a Supplemental Permit must be obtained. Discharge from this pond is not allowed unless applicable effluent standards of Subtitle D are met at the basin discharge(s).
8. This Agency must be informed in writing and an application submitted if drainage, which was previously classified as alkaline (pH greater than 6.0), becomes acid (pH less than 6.0) or ferruginous (base flow with an iron concentration greater than 10 mg/l). The type of drainage reporting to the basin should be reclassified in a manner consistent with the applicable rule of 35 Ill. Adm. Code 406 as amended in R84-29 at 11 Ill. Reg. 12899. The application should discuss the treatment method and demonstrate how the discharge will meet the applicable standards.
9. A permittee has the obligation to add a settling aid if necessary to meet the suspended solids or settleable solids effluent standards. The selection of a settling aid and the application practice shall be in accordance with a. or b. below
  - a. Alum ( $\text{Al}_2(\text{SO}_4)_3$ ), hydrated slime ( $\text{Ca}(\text{OH})_2$ ), soda ash ( $\text{Na}_2\text{CO}_3$ ), alkaline pit pumpage, acetylene production by-product (tested for impurities), and ground limestone are acceptable settling aids and are hereby permitted for alkaline mine drainage sedimentation ponds.
  - b. Any other settling aids such as commercial flocculents and coagulants are permitted only on prior approval from the Agency. To obtain approval a permittee must demonstrate in writing to the Agency that such use will not cause a violation of the toxic substances standard of 35 Ill. Adm. Code 302.210 or of the appropriate effluent and water quality standards of 35 Ill. Adm. Code parts 302, 304, and 406.
10. A general plan for the nature and disposition of all liquids used to drill boreholes shall be filed with this Agency prior to any such operation. This plan should be filed at such time that the operator becomes aware of the need to drill unless the plan of operation was contained in a previously approved application. After settling, recirculation water which meets the requirements of 35 Ill. Adm. Code 406.106 and 406.202, may be discharged. The use of additives in the recirculation water which require treatment other than settling to comply with the Act will require a revised permit.
11. Any of the following shall be a violation of the provisions required under 35 Ill. Adm. Code 406.202:
  - a. It is demonstrated that an adverse effect on the environment in and around the receiving stream has occurred or is likely to occur.
  - b. It is demonstrated that the discharge has adversely affected or is likely to adversely affect any public water supply.
  - c. The Agency determines that the permittee is not utilizing Good Mining Practices in accordance with 35 Ill. Adm. Code 406.204 which are fully described in detail in Sections 406.205, 406.206, 406.207 and 406.208 in order to minimize the discharge of total dissolved solids, chloride, sulfate, iron and manganese. To the extent practical, such Good Mining Practices shall be implemented to:
    - i. Stop or minimize water from coming into contact with disturbed areas through the use of diversions and/or runoff controls (Section 406.205).
    - ii. Retention and control within the site of waters exposed to disturbed materials utilizing erosion controls, sedimentation controls, water reuse or recirculation, minimization of exposure to disturbed materials, etc. (Section 406.206).
    - iii. Control and treatment of waters discharged from the site by regulation of flow of discharges and/or routing of discharges to more suitable discharge locations (Section 406.207).
    - iv. Utilize unconventional practices to prevent the production or discharge of waters containing elevated contaminant concentrations such as diversion of groundwater prior to entry into a surface or underground mine, dewatering practices to remove clean water prior to contacting disturbed materials and/or any additional practices demonstrated to be effective in reducing contaminant levels in discharges (Section 406.208.)

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12. Annual analysis of the water treatment plant lime sludge and/or sewage treatment plant sludge shall be submitted to this Agency in accordance with Special Condition No. 3 of this NPDES Permit on or before December 31<sup>st</sup> of each year in which this material is utilized. Such annual analyses shall be performed utilizing test method ASTM D3987-85 and shall include the following constituents:

Aluminum	Cyanide	Silver
Antimony	Fluoride	Sulfate
Arsenic	Iron	Thallium
Barium	Lead	Total Dissolved Solids
Beryllium	Manganese	Vanadium
Boron	Mercury	Zinc
Cadmium	Molybdenum	pH
Chloride	Nickel	
Chromium	Selenium	
Cobalt		
Copper		

The annual analyses required under this Condition shall include notification of the volume (tonnage) of water treatment plant lime sludge and/or sewage treatment plant sludge utilized during the year.

13. Coal Combustion Waste disposal shall be subject to the following:

- a. Coal Combustion Waste analysis shall be conducted as follows:

A Toxicity Characteristics Leaching Procedure (TCLP) shall be conducted for the following contaminants:

Aluminum	Cobalt	Nickel
Antimony	Copper	Phenol
Arsenic	Iron	Selenium
Barium	Lead	Silver
Beryllium	Manganese	Thallium
Boron	Mercury	Vanadium
Cadmium	Molybdenum	Zinc
Chromium		

An appropriate leaching procedure shall be conducted for the following contaminants:

Chloride	Fluoride	Sulfate
Cyanide		

An appropriate laboratory analysis on a slurry paste shall include the following:

- Acidity (CaCO<sub>3</sub> Equivalent)
- Alkalinity (CaCO<sub>3</sub> Equivalent)
- pH
- Total Dissolved Solids

A quarterly analysis of each individual coal combustion waste approved herein and a CCW/refuse weighted composite shall be submitted to this Agency. The quarterly analysis is required only for quarters during which CCW disposal occurs. For quarters during which no CCW disposal occurs, a written notification to the Agency indicating such is required.

The quarterly analysis required herein shall include an estimate of the volume of coal combustion waste disposed from each source during the quarter.

Should a new or revised leachate test method be approved by U.S. Environmental Protection Agency, such methodology shall be utilized for coal combustion waste (CCW) analysis in lieu of TCLP analysis required above.

- b. The quarterly TCLP analysis required under Condition 13 (a) above shall be submitted to the Agency in accordance with Special Condition Nos. 3 and 5 of this NPDES Permit.



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- c. Fugitive dust from the coal combustion waste material shall not leave the disposal area. Timely covering, incorporation and/or wetting shall be utilized as necessary to protect exposed surfaces from wind erosion. If during disposal operations, such procedures do not sufficiently control fugitive dust, disposal activities shall cease until such time that more favorable conditions exist or modified operation procedures are proposed and approved by this Agency.
  - d. During periods of inclement weather, the operating procedures may be modified as described in Log No. 0235-98. That is, the CCW delivered to the site may be placed in temporary dumping area located near the preparation plant. The CCW temporarily placed in this area shall be located onto the refuse belt and transported to the refuse disposal area within 24 hours from the time of delivery. Fugitive dust from the transfer operation must be controlled as described in Special Condition No. 13 (c).
  - e. Any proposed changes or modifications to the approved conditions, operating procedures waste source or source characteristics require notification and approval by the Agency prior to such changes or modifications being implemented.
14. Groundwater monitoring at this facility consists of Well Nos. W3-04, W3-05, W3-06, W3-07, W3-08, W3-09 and W3-10.

Quarterly monitoring requirements for Monitoring Well Nos. W3-04, W3-08 and W3-09 shall include the following constituents:

Aluminum	Cyanide	Silver
Antimony	Fluoride	Sulfate
Arsenic	Iron (dissolved)	Thallium
Barium	Iron (total)	Total Dissolved Solids
Beryllium	Lead	Vanadium
Boron	Manganese (dissolved)	Zinc
Cadmium	Manganese (total)	pH
Chloride	Mercury	Acidity
Chromium	Molybdenum	Alkalinity
Cobalt	Nickel	Hardness
Copper	Selenium	Water Elevation

Quarterly monitoring as required by IDNR/OMM for monitoring well Nos. W3-05, W3-06, W3-07 and W3-10 shall be submitted to the Agency in accordance with Special Condition Nos. 3 and 5 of this NPDES Permit.

Should electronic filing of groundwater monitoring data be elected, electronic notification shall be provided to the Agency upon submittal of groundwater data to IDNR/OMM.

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Special Conditions

**Special Condition No. 1:** No effluent from any mine related facility area under this permit shall, alone or in combination with other sources, cause a violation of any applicable water quality standard as set out in the Illinois Pollution Control Board Rules and Regulations, Subtitle C: Water Pollution.

**Special Condition No. 2:** Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

**Special Condition No. 3:** All periodic monitoring and reporting forms, including Discharge Monitoring Report (DMR) forms, shall be submitted to the Agency according to the schedule outlined in Special Condition No. 4 below with one (1) copy forwarded to each of the following addresses:

Illinois Environmental Protection Agency  
Division of Water Pollution Control  
1021 North Grand Ave., East  
P.O. Box 19276  
Springfield, Illinois 62794-9276

Illinois Environmental Protection Agency  
Mine Pollution Control Program  
2309 West Main Street, Suite 116  
Marion, Illinois 62959

Attn: Compliance Assurance Section

**Special Condition No. 4:** Completed Discharge Monitoring Report (DMR) forms and stream monitoring results, shall be retained by the Permittee for a period of three (3) months and shall be mailed and received by the IEPA at the addresses indicated in Special Condition No. 3 above in accordance with the following schedule, unless otherwise specified by the permitting authority.

Period	Received by IEPA
January, February, March	May 1
April, May, June	August 1
July, August, September	November 1
October, November, December	February 1

The Permittee shall record discharge monitoring results on Discharge Monitoring Report forms (DMR's) using one such form for each applicable Discharge Condition each month.

**Special Condition No. 5:** Completed periodic monitoring and reporting forms, other than DMR's and stream monitoring, ( i.e., groundwater monitoring, coal combustion waste reports, etc.) shall be retained by the Permittee for a period of three (3) months and shall be mailed and received by the IEPA at the addresses indicated in Special Condition No. 3 above in accordance with the following schedule, unless otherwise specified by the permitting authority.

Period	Received by IEPA
January, February, March	May 1
April, May, June	August 1
July, August, September	November 1
October, November, December	February 1

Should electronic filing be available and elected for any periodic monitoring and reporting requirements, the Agency shall be notified via correspondence or e-mail at such time that the electronic filing has been completed.

**Special Condition No. 6:** If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

**Special Condition No. 7:** The permittee shall notify the Agency in writing by certified mail within thirty days of abandonment, cessation, or suspension of active mining for thirty days or more unless caused by a labor dispute. During cessation or suspension of active mining, whether caused by a labor dispute or not, the permittee shall provide whatever interim impoundment, drainage diversion, and wastewater treatment is necessary to avoid violations of the Act or Subtitle D.

**Special Condition No. 8:** Plans must be submitted to and approved by this Agency prior to construction of a sedimentation pond. At such time as runoff water is collected in the sedimentation pond, a sample shall be collected and analyzed for the parameters designated as 1M-15M under Part 5-C of Form 2C and the effluent parameters designated herein with the results sent to this Agency. Should additional treatment be necessary to meet these standards, a Supplemental Permit must also be obtained. Discharge from a pond is not allowed unless applicable effluent and water quality standards are met.

Special Conditions

**Special Condition No. 9:** The special reclamation area effluent standards of 35 Ill. Adm. Code 406.109 apply only on approval from the Agency. To obtain approval, a request form and supporting documentation shall be submitted 45 days prior to the month that the permittee wishes the discharge be classified as a reclamation area discharge. The Agency will notify the permittee upon approval of the change.

**Special Condition No. 10:** The special stormwater effluent standards apply only on approval from the Agency. To obtain approval, a request with supporting documentation shall be submitted 45 days prior to the month that the permittee proposes the discharge to be classified as a stormwater discharge. The documentation supporting the request shall include analysis results indicating the discharge will consistently comply with reclamation area discharge effluent standards. The Agency will notify the permittee upon approval of the change.

**Special Condition No. 11:** Annual stormwater monitoring is required for all discharges not reporting to a sediment basin until Final SMCRA Bond is released and approval to cease such monitoring is obtained from the Agency.

- a. Each discharge must be monitored for pH and settleable solids annually.
- b. Analysis of samples must be submitted with second quarter Discharge Monitoring Reports. A map with discharge locations must be included in this submittal.
- c. If discharges can be shown to be similar, a plan may be submitted by November 1 of each year preceding sampling to propose grouping of similar discharges and/or update previously submitted groupings. If updating of a previously submitted plan is not necessary, a written notification to the Agency indicating such is required. Upon approval from the Agency, one representative sample for each group may be submitted.

**Special Condition No. 12:** Sediment Pond Operation and Maintenance (Outfalls 001, 006, 007, 009, 010):

- a. During all Discharge Conditions, discharges from Outfalls 001, 006, 007, 009 and 010 shall be monitored and reported for Discharge Rate, Sulfate, Chloride and Hardness.
- b. The following sampling and monitoring requirements are applicable to flow in the unnamed tributaries to Marys River which receive discharges from Outfalls 001, 007, 009 and 010 and the unnamed tributary to Plum Creek which receives discharges from Outfalls 006.
  - i. All sampling and monitoring required under 12(b)(ii) and (iii) below shall be performed during a discharge and monitoring event from the associated outfall.
  - ii. The unnamed tributaries to Marys River and the unnamed tributary to Plum Creek shall be monitored and reported quarterly for Discharge Rate, Chloride, Sulfate and Hardness downstream of the associated outfall. This downstream monitoring shall be performed a sufficient distance downstream of the associated outfall to ensure that complete mixing has occurred. At such time that sufficient information has been collected regarding receiving stream flow characteristics and in-stream contaminant concentrations the permittee may request a re-evaluation of the monitoring frequency required herein for possible reduction or elimination. For the purpose of re-evaluating the downstream monitoring frequency of the receiving stream, "sufficient information" is defined as a minimum of ten (10) quarterly sampling events.
 

In the event that downstream monitoring of the receiving waters is eliminated during the term of this permit based on an evaluation of the quarterly data, a minimum of three (3) additional samples analyzed for the parameters identified above must be submitted with the permit renewal application a minimum of 180 days prior to expiration of this permit.
  - iii. The unnamed tributaries to Marys River and the unnamed tributary to Plum Creek shall be monitored and reported annually for Discharge Rate, Chloride, Sulfate and Hardness upstream of the associated outfall.
- c. All results of sampling and monitoring performed in accordance with Special Condition 12(a) and (b) shall be submitted to the Agency in accordance with Special Condition Nos. 3 and 4 above.

**Special Condition No. 13:** Sediment Pond Operation and Maintenance (Outfalls 002 and 003):

- a. No discharge is allowed from Outfall Nos. 002 and 003 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 available for mixing is less than the ratio times the flow rate being discharged from the respective outfall. These ratios are as follows:

Outfall No.	Flow Ratio of Receiving Stream to Outfall Discharge
002	1.1:1
003	1.1:1

Special Conditions

Pursuant to 35 Ill. Adm. Code 302.120, discharges from the referenced outfalls that otherwise would not meet the water quality standards of 35 Ill. Adm. Code 302 may be permitted if sufficient flow exists in the receiving stream to ensure that applicable water quality standards are met. That is, discharges not meeting the water quality standards of 35 Ill. Adm. Code 302 may only be discharged in combination with stormwater discharges from the basin, and only at such times that sufficient flow exists in the receiving stream to ensure that water quality standards in the receiving stream beyond the area of allowed mixing will not be exceeded. Following any such stormwater discharge, but prior to the flow in the receiving stream subsiding, the impounded water in the basin may be pumped or otherwise evacuated sufficiently below the discharge elevation to provide capacity for holding a sufficient volume of mine pumpage and/or surface runoff to preclude the possibility of discharge until such time that a subsequent precipitation event results in discharge from the basin. Should the Permittee elect to pump impounded water from the basin in accordance with this Special Condition, the pump intake shall be "floated" near the impounded water surface or otherwise managed to prevent re-suspension and subsequent discharge of previously accumulated sediments. At times of stormwater discharge, in addition to the alternate effluent (Discharge Condition Nos. II and III) monitoring requirements, as indicated on the applicable effluent pages of this Permit, discharges from Outfall Nos. 002 and 003 shall be monitored and reported for Discharge Rate, Sulfate, Chloride and Hardness.

- b. The following sampling and monitoring requirements are applicable to flow in unnamed tributary to Marys River which receives the discharges from Outfalls 002 and 003.
- i. All sampling and monitoring required under 13(b)(ii) and (iii) below shall be performed during a discharge and monitoring event from the associated outfall.
  - ii. Unnamed tributary to Marys River shall be monitored and reported quarterly for Discharge Rate, Sulfate, Chloride and Hardness downstream of the associated outfall. This downstream monitoring shall be performed a sufficient distance downstream of the associated outfall to ensure that complete mixing has occurred. At such time that sufficient information has been collected regarding stream flow characteristics and in-stream contaminant concentrations, the permittee may request a re-evaluation of the monitoring frequency required herein for possible reduction or elimination. For the purpose of re-evaluating the downstream monitoring frequency of the receiving stream, "sufficient information" is defined as a minimum of ten (10) quarterly sampling events.  
  
In the event that downstream monitoring of the receiving waters is eliminated during the term of this permit based on an evaluation of the quarterly data, a minimum of three (3) additional samples analyzed for the parameters identified above must be submitted with the permit renewal application a minimum of 180 days prior to expiration of this permit.
  - iii. Unnamed tributary to Marys River shall be monitored and reported annually for Discharge Rate, Sulfate, Chloride and Hardness upstream of the associated outfall.

**Special Condition No. 14:** Sediment Pond Operation and Maintenance (Outfalls 002 and 003-Reclamation Area Drainage):

- a. For discharges resulting from precipitation events, in addition to the alternate effluent (Discharge Condition Nos. II and III) monitoring requirements, as indicated on the applicable effluent pages of this Permit, discharges from Outfalls 002 and 003 shall be monitored and reported for Discharge Rate, Sulfate, Chloride and Hardness.
- b. The following sampling and monitoring requirements are applicable to flow in the unnamed tributary to Marys River which receive discharges from Outfalls 002 and 003.
  - i. All sampling and monitoring required under 14(b)(ii) and (iii) below shall be performed during a discharge and monitoring event from the associated outfall.
  - ii. Unnamed tributary to Marys River shall be monitored and reported quarterly for Discharge Rate, Chloride, Sulfate and Hardness downstream of the associated outfall. This downstream monitoring shall be performed a sufficient distance downstream of the associated outfall to ensure that complete mixing has occurred. At such time that sufficient information has been collected regarding receiving stream flow characteristics and in-stream contaminant concentrations the permittee may request a re-evaluation of the monitoring frequency required herein for possible reduction or elimination. For the purpose of re-evaluating the downstream monitoring frequency of the receiving stream, "sufficient information" is defined as a minimum of ten (10) quarterly sampling events.  
  
In the event that downstream monitoring of the receiving waters is eliminated during the term of this permit based on an evaluation of the quarterly data, a minimum of three (3) additional samples analyzed for the parameters identified above must be submitted with the permit renewal application a minimum of 180 days prior to expiration of this permit.
  - iii. Unnamed tributary to Marys River shall be monitored and reported annually for Discharge Rate, Chloride, Sulfate and Hardness upstream of the associated outfall.

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Special Conditions

**Special Condition No. 15:** Data collected in accordance with Special Condition Nos.12 & 13 above will be utilized to evaluate the appropriateness of the effluent limits established in this Permit. Should the Agency's evaluation of this data indicate revised effluent limits are warranted; this permit may be reopened and modified to incorporate more appropriate effluent limitations. This data will also be used for determination of effluent limitations at the time of permit renewal.

**Special Condition No. 16:** Mercury shall be monitored quarterly until a minimum of ten (10) samples have been collected. Samples shall be collected and tested in accordance with USEPA 1631E using the option at Section 11.1.1.2 requiring the heating of samples at 50°C for 6 hours in a BrCl solution in closed vessels. This test method has a Method Detection Limit (MDL) of 0.001 µg/l. The results of such testing must be submitted with the quarterly Discharge Monitoring Reports (DMR's). The Permittee may submit a written request to the Agency to discontinue quarterly Mercury monitoring if the sampling results show no reasonable potential to exceed the Mercury water quality standard.