

NPDES Permit No. IL0062189  
Notice No. 6989c

Public Notice Beginning Date: **February 10, 2015**

Public Notice Ending Date (Post-Hearing Comments Due): **April 15, 2015**

National Pollutant Discharge Elimination System (NPDES)  
Permit Program

Draft Renewed 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  
2177782-0610

Name and Address of Discharger:

Peabody Coulterville Mining, L.L.C.  
7100 Eagle Crest Boulevard, Suite 200  
Evansville, IN 47702-0312

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, Illinois  
(Randolph County)

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 including additional coal stockpile and coal loadout, removal of thickener pond, construction of pole building and soil stockpiles.

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.

Incorporation of eight (8) parcels of additional area totaling 68.68 acres under Incidental Boundary Revisions (IBR's).

Incorporate additional permit area for the Refuse Cell 5 located on 100.0 acres and identified as OMM Permit No. 426.

Incorporate four (4) new discharges designated as Outfalls 009, 010, 011 and 012.

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.

Surface drainage control revision for area tributary to Outfall 008 due to incorporation of new Outfall 009.

Surface drainage control revision to facilitate reclamation of refuse disposal Cell 2.

This facility has six (6) existing discharge(s) 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>
001	Unnamed trib. to Marys River	38° 09' 15"	89° 37' 00"
002	Unnamed trib. to Marys River	38° 10' 27"	89° 38' 01"
003	Unnamed trib. to Marys River	38° 10' 27"	89° 38' 01"
006	Unnamed trib. to Plum Creek	38° 10' 43"	89° 38' 45"
007	Unnamed trib. to Marys River	38° 09' 06"	89° 36' 49"
008	Unnamed trib. to Marys River	38° 09' 39"	89° 38' 23"

The stream segment IL\_II-02 of Marys River receiving the flow from the unnamed tributary into which Outfalls 001, 002, 003, 007 and 008 discharges is on the 2014 303(d) list of impaired waters. The following parameters have been identified as the pollutants causing impairment:

<u>Outfall</u>	<u>Pollutant</u>
001, 002, 003, 007 and 008	Manganese, Oxygen Dissolved

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 2014 303(d) list of impaired waters.

Application is made for four (4) 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>
009	Unnamed tributary to Marys River	38° 09' 39"	89° 38' 22"
010	Unnamed tributary to Lick Branch	38° 05' 30"	89° 36' 12"
011	Unnamed tributary to Plum Creek	38° 10' 21"	89° 39' 06"
012	Unnamed tributary to Plum Creek	38° 10' 44"	89° 39' 06"

The stream segment IL\_II02 of Marys River receiving the flow from the unnamed tributary into which Outfall 009 discharges is on the 2014 303(d) list of impaired waters. The following parameters have been identified as the pollutants causing impairment:

<u>Outfall</u>	<u>Pollutant</u>
009	Manganese, Oxygen Dissolved

The stream segment IL\_IJJ of Lick Branch receiving the flow from the unnamed tributary into which Outfall 010 discharges is not on the 2014 303(d) list of impaired waters.

The stream segment IL\_OZC-01 of Plum Creek receiving the flow from the unnamed tributary into which Outfalls 011 and 012 discharge are not on the 2014 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										Hardness (5)	Flow (MGD)	Settleable Solids (2) (ml/l)
	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)				
	30 day average	daily maximum	30 day average	daily maximum					30 day average	daily maximum			
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	2030	500	2.0	4.0	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	2030	500	-	-	Monitor only	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	2030	500	-	-	Monitor only	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	2030	500	2.0	4.0	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 001, being approved prior to 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: 002

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					30 day average	daily maximum				
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1810	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1810	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1810	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1810	500	2.0	4.0	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. At such time that receiving stream flow subsides to the degree that the mixing ratio specified in Special Condition No. 14 is not available, monitoring requirements and permit limitations shall revert to Discharge Condition I.
- (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 002, being approved prior to 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: 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					30 day average	daily maximum				
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	500	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1500	1000	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1500	1000	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.0-9.0	Alk.>Acid	1500	1000	2.0	4.0	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. 14.
  - 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. At such time that receiving stream flow subsides to the degree that the mixing ratio specified in Special Condition No. 14 is not available, monitoring requirements and permit limitations shall revert to Discharge Condition I.
- (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 003, being approved prior to 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					30 day average	daily maximum				
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1366	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1366	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1366	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1366	500	2.0	4.0	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 006, being approved prior to 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											Flow (MGD)	Settleable Solids (2) (m/l)	
	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
	30 day average	daily maximum	30 day average	daily maximum					30 day average	daily maximum				
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	2198	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	2198	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	2198	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	2198	500	2.0	4.0	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 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:

Outfalls: 008, 009

Discharge Condition	Parameters											Flow (MGD)	Settleable Solids (2) (m/l)	
	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
	30 day average	daily maximum	30 day average	daily maximum					30 day average	daily maximum				
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	2004	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	2004	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	2004	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	2004	500	2.0	4.0	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 Outfalls 008 and 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) (m/l)
	30 day average	daily maximum	30 day average	daily maximum					30 day average	daily maximum				
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1301	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1301	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1301	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1301	500	2.0	4.0	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.
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- (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.

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

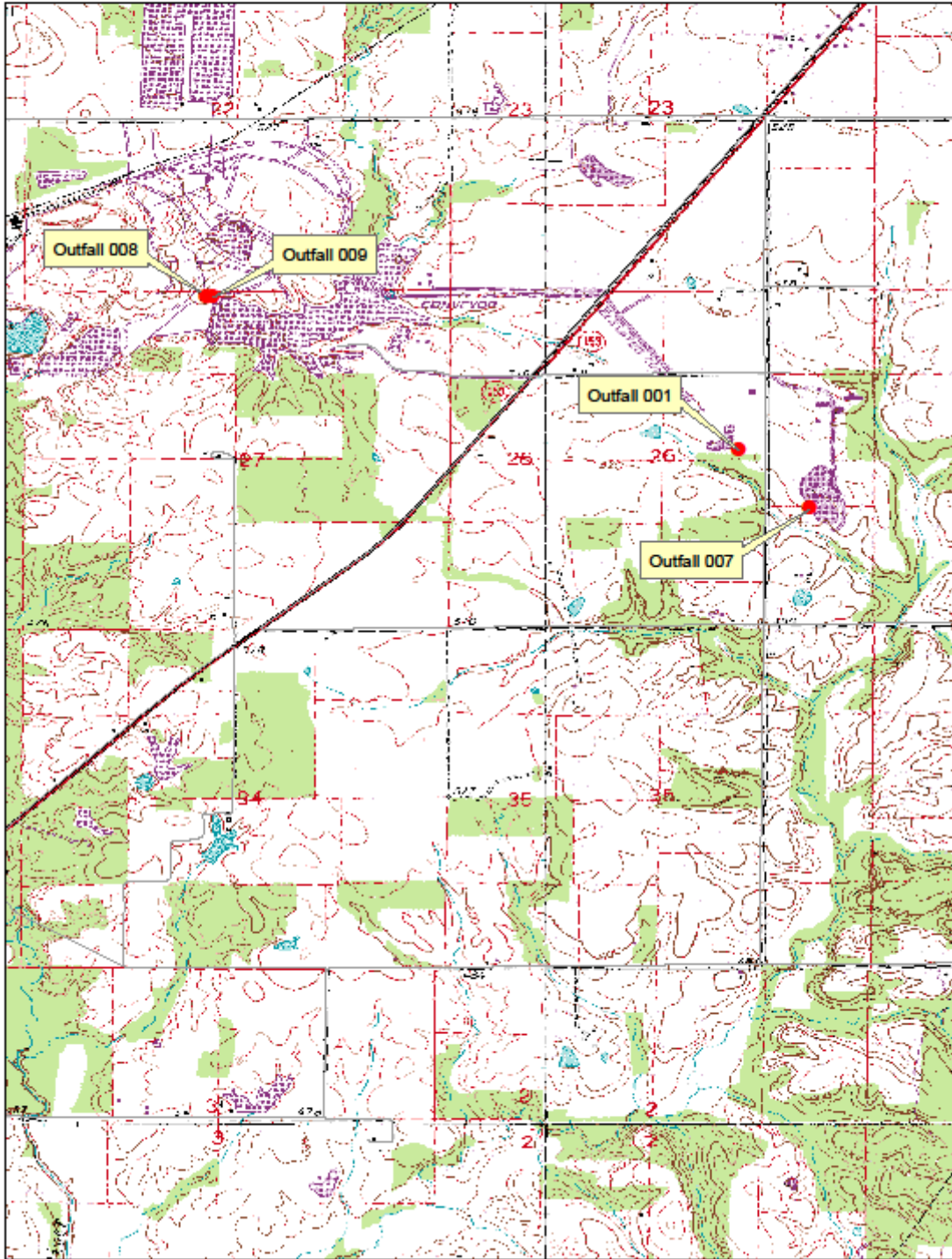
Outfalls: 011, 012

Discharge Condition	Parameters											Flow (MGD)	Settleable Solids (2) (m/l)	
	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
	30 day average	daily maximum	30 day average	daily maximum					30 day average	daily maximum				
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1366	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1366	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1366	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1366	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-

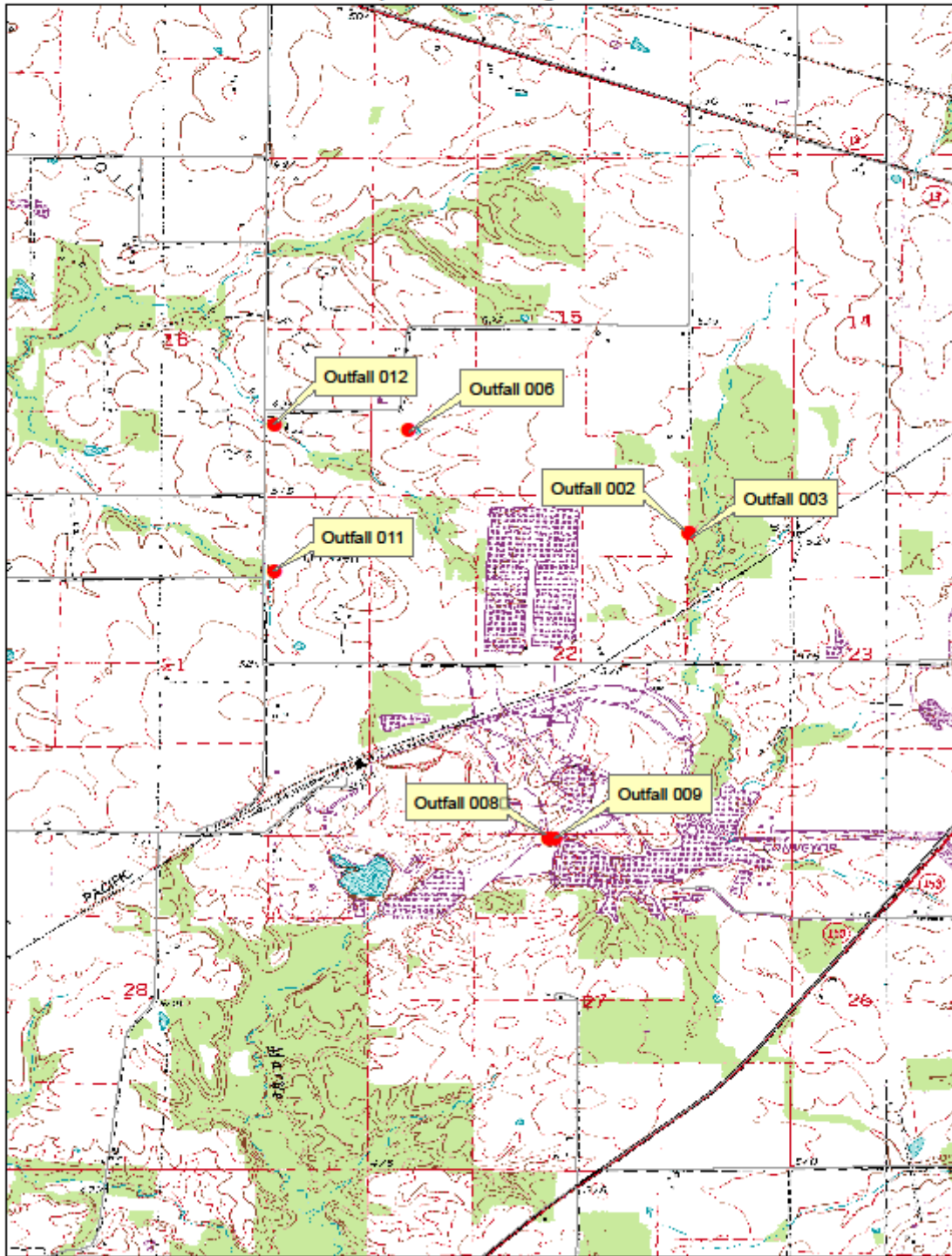
- I Dry weather discharge (base flow or mine pumpage) from the outfall.
  - II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24 hour precipitation event (or snowmelt 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 Outfalls 011 and 012, 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, 16, 21, 22, 26 and 27, Township 4 South, Range 5 West, and Section 12 & 13, Township 5 South, Range 5 West, Randolph County, Illinois.

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

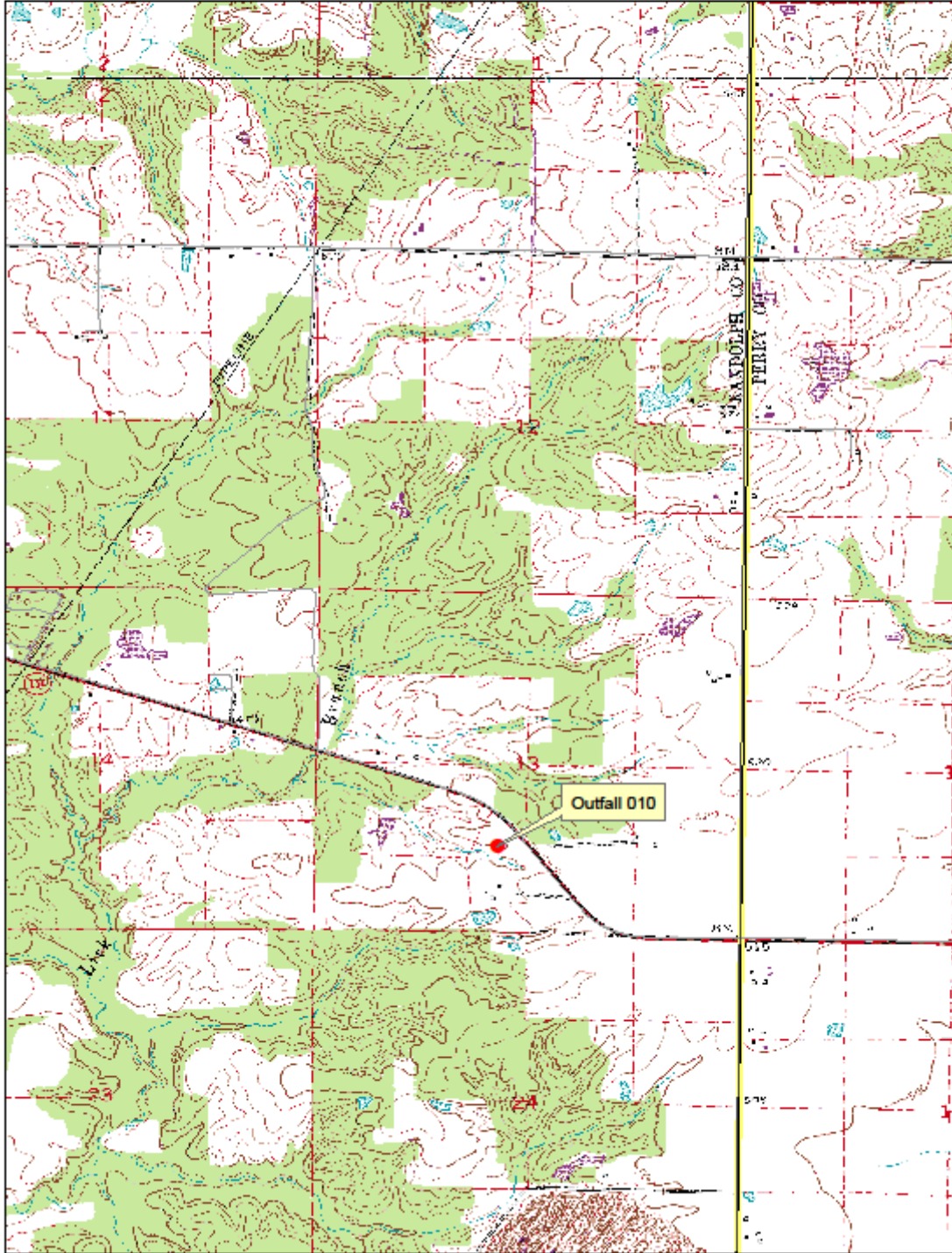


**Peabody Coulterville Mining, L.L.C. - Gateway Mine**  
**NPDES Permit No. IL0062189**  
Randolph County  
Township 4 South, Range 5 West





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



**Antidegradation Assessment  
Coulterville Coal Company, L.L.C. – Gateway Mine  
NPDES Permit No. IL0062189  
Randolph County**

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 is has been reclaimed and is only stormwater.

Outfall 008 will be removed from the permit when Outfall 009 is constructed. Drainage presently reporting to Outfall 008 will be routed through proposed Outfall 009. Sedimentation pond 009 will be constructed between the railroad loop and associated outfall 009 which will then discharge everything reporting to Outfall 008 (except the presently proposed < 2 acre alternate drainage control area immediately upstream from outfall 008) to the Freshwater Lake. Newly established Outfall 009 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. The facility is increasing the size of the sediment basin to improve the solids treatment of the flow through Outfall 008 and 009. Loading of Manganese to Outfall 008 and 009 will not be increased since the solids treatment will be improved over the existing discharge and the only new area that will be routed to these outfalls will be approximately 6.6 acres associated with the soil stockpile, which will not have elevated levels of Manganese.

The facility is proposing to construct a new refuse cell 5 (IDNR Permit No. 426). All water within the impoundment will be recycled to the preparation plant. Only rainfall draining off the out-slopes of the impoundment will leave the area after passing through professionally designed sediment basins. In addition, the permit will authorize lime sludge utilization and CCW disposal in refuse disposal area. Outfalls 011 and 012 will capture and treat the water that falls on the out-slopes.

Additionally, the permit will authorize use of lime sludge utilization for neutralization on refuse and sewage sludge utilization as soil amendment.

Outfall 006 will be removed when the cell 5 embankments are constructed. The drainage will be routed through proposed Outfall 012.

The proposed Outfall 010 will treat underground pumpage from the groundwater that comes into contact with the airshaft. The expected flow is 600 gallons/day which is from groundwater 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 184.68 acres to a total proposed permitted area of 922.07 acres. Additional Permit Areas:

- A. IEPA Log No. 2356-06: refuse area expansion (15.5 acres) (Outfalls 011 and 012)
- B. IEPA Log No. 9362-09: south airshaft (3.5 acres) (Outfall 010)
- C. Proposed rock dust hole #2 (1.0 acre) (Non-continuous Incidental Boundary Revision)
- D. Proposed OMM Permit No. 160 IBR#3 borrow area (20.0 acres) (Outfall 009)
- E. Proposed borrow area west of IBR#3 borrow area (36.0 acres) (Outfall 009)
- F. Proposed OMM Permit No. 53 area east of railroad access road (1.5 acres) (Outfall 009)
- G. IEPA Log No. 3283-05: access road construction (2.0 acres) (Incidental Boundary Revision)
- H. IEPA Log No. 2355-06: helicopter pad (5.18 acres) (Incidental Boundary Revision)
- I. IEPA Log No. 4279-14: refuse cell #5 (100.0 acres) (Outfalls 011 and 012)
- J. IEPA Log No. 4555-14: additional soil stockpiling area (20.0 acres) (Outfall 008)

The information in this antidegradation assessment came from the August 19, 2014 letter from Peabody Coulterville Mining, LLC, 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, an e-mail dated January 20, 2011 identifying the correct acreages, a letter dated March 28, 2012 (with a revised antidegradation analyses), the application for OMM Permit No. 426 (Log No. 4279-14), a letter dated August 19, 2014 to IEPA (Log No. 4306-14), a letter dated August 19, 2014 to IDNR (Log No. 4344-14), and a letter dated December 16, 2014 to IDNR (Log. No. 4555-14).

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

The subject facility proposes to discharge to an unnamed tributary of Marys River through Outfall 009, at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. The unnamed tributary of Marys River is classified as General Use Water. According to the 2008 IDNR document "Integrating Multiple Taxa in a Biological Stream Rating System", the unnamed tributary of Marys River is not a biologically significant stream, nor is it given an integrity rating in that document. The unnamed tributary of Marys River, tributary to Waterbody Segment, II-02, is not listed on the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List since it has not been assessed. However, Marys River itself, Waterbody Segment, II-02, has been evaluated and it is listed on the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes of manganese and dissolved oxygen (non-pollutant). The unnamed tributary of Marys River is not subject to enhanced dissolved oxygen standards.

**Antidegradation Assessment  
Coulterville Coal Company, L.L.C. – Gateway Mine  
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The USGS Illinois Streamstats basin characteristics program gives a watershed size of 3.47 square miles for Outfall 009 at the discharge point on the unnamed tributary of Marys River. According to the Illinois State Water Survey, the unnamed tributary of Marys River in the area of the proposed mine discharge is likely to be 7Q1.1 zero flow stream. 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.

The subject facility proposes to discharge to an unnamed tributary of Lick Branch through Outfall 010, at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. The unnamed tributary to Lick Branch is classified as General Use Water. According to the 2008 IDNR document "Integrating Multiple Taxa in a Biological Stream Rating System", the unnamed tributary of Lick Branch is not a biologically significant stream, nor is it given an integrity rating in that document. The unnamed tributary of Lick Branch, tributary to Waterbody Segment, IJJ, is not listed on the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List since it has not been assessed. Additionally, Lick Branch itself, Waterbody Segment, IJJ, is not listed on the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List since it has not been assessed. The unnamed tributary of Lick Branch is not subject to enhanced dissolved oxygen standards.

The USGS Illinois Streamstats basin characteristics program gives a watershed size of 0.04 square miles for Outfall 010 at the discharge point on the unnamed tributary of Lick Branch. According to the Illinois State Water Survey, the unnamed tributary of Lick Branch in the area of the proposed mine discharge is likely to be a 7Q1.1 zero flow stream. 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.

The subject facility proposes to discharge to unnamed tributaries of Plum Creek, through Outfalls 011 and 012, at points where 0 cfs of flow exists upstream of the outfalls during critical 7Q10 low-flow conditions. The unnamed tributaries to Plum Creek are classified as a General Use Waters. According to the 2008 IDNR document "Integrating Multiple Taxa in a Biological Stream Rating System", the unnamed tributaries of Plum Creek are not biologically significant streams, nor are they given an integrity rating in that document. The unnamed tributaries of Plum Creek, tributary to Waterbody Segment, OZC-01, are not listed on the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List since they have not been assessed. Further, Plum Creek itself, Waterbody Segment, OZC-01, has been evaluated and it is not listed on the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List. Aquatic life use is fully supported. The unnamed tributaries of Plum Creek are not subject to enhanced dissolved oxygen standards.

The USGS Illinois Streamstats basin characteristics program gives a watershed size of 0.12 and 0.44 square miles for Outfalls 011 and 012 respectively at the discharge points on the unnamed tributaries of Plum Creek. According to the Illinois State Water Survey, the unnamed tributaries of Plum Creek 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 increase in 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.

**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.



**Antidegradation Assessment  
Coulterville Coal Company, L.L.C. – Gateway Mine  
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**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 March 28, 2012 entitled Peabody Coulterville Mining LLC – Gateway Mine – Revised Antidegradation 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 March 28, 2012 entitled Peabody Coulterville Mining LLC – Gateway Mine – Revised Antidegradation 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.

**Antidegradation Assessment  
Coulterville Coal Company, L.L.C. – Gateway Mine  
NPDES Permit No. IL0062189  
Randolph County**

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

On August 14, 2014, the IDNR EcoCAT web-based tool was used and indicated that there were no endangered/threatened species present in the vicinity of the proposed stockpile expansion. The IDNR EcoCAT web-based tool terminated the consultation.

On August 15, 2014, the IDNR EcoCAT web-based tool was used and indicated that there were no endangered/threatened species present in the vicinity of the proposed refuse expansion. The IDNR EcoCAT web-based tool terminated the consultation.

On September 18, 2014, the IDNR EcoCAT web-based tool was used and indicated that there were no endangered/threatened species present in the vicinity of Outfall 009. The IDNR EcoCAT web-based tool terminated the consultation.

On September 18, 2014, the IDNR EcoCAT web-based tool was used and indicated that there were no endangered/threatened species present in the vicinity of Outfall 010. The IDNR EcoCAT web-based tool terminated the consultation.

On September 18, 2014, the IDNR EcoCAT web-based tool was used and indicated that there were no endangered/threatened species present in the vicinity of Outfalls 011 and 012. 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.

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.  
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  
2 miles south of Coulterville, Illinois  
(Randolph County)

Discharge Number and Classification:

001, 002, 003, 007, 008, 009

Alkaline Mine Drainage

010

Alkaline Mine Drainage

006, 011, 012

Alkaline Mine Drainage

Receiving waters

Unnamed tributary to Marys River

Unnamed tributary to Lick Branch

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.

Joseph D. Stitely, P.E., Acting Permit Manager  
Mine Pollution Control Program  
Bureau of Water

JDS:IW:cs/6989c/2-10-15

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 ***	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum					30 day average	daily maximum			
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	2030	500	2.0	4.0	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	2030	500	-	-	Monitor only	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	2030	500	-	-	Monitor only	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	2030	500	2.0	4.0	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.

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\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 13 for the discharges from Outfall 001 and unnamed tributary to 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\*: 002 (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. 17	Flow (MGD)	Settleable Solids (m/l)
	30 day average	daily maximum	30 day average	daily maximum					30 day average	Daily maximum				
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1810	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1810	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1810	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.0-9.0	Alk.>Acid	1810	500	2.0	4.0	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. At such time that receiving stream flow subsides to the degree that the mixing ratio specified in Special Condition No. 14 is not available, monitoring requirements and permit limitations shall revert to Discharge Condition I.

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.

Discharges from the above referenced outfall that are subject to the requirements of Discharge Conditions II, III and/or IV must meet the water quality standards for sulfate and chloride 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 Outfall 002 and the unnamed tributary to Marys River receiving such discharges. Also, discharges from Outfall 002 shall be subject to the limitations, and monitoring and reporting requirements of Special Condition No. 18.

\*\* 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\*: 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. 17	Flow (MGD)	Settleable Solids (m/l)
	30 day average	daily maximum	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	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1500	1000	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1500	1000	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.0-9.0	Alk.>Acid	1500	1000	2.0	4.0	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. 14.
- 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. 14 is not available, monitoring requirements and permit limitations shall revert to Discharge Condition I.

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.

Discharges from the above referenced outfall that are subject to the requirements of Discharge Conditions II, III and/or IV must meet the water quality standards for sulfate and chloride in the receiving stream.

\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 14 for the discharges from Outfall 003 and the unnamed tributary to Marys River receiving such discharges. Also, discharges from Outfall 002 and 003 shall be subject to the limitations, and monitoring and reporting requirements of Special Condition No. 18.

\*\* 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. 17	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum					30 day average	daily maximum				
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1366	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1366	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1366	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1366	500	2.0	4.0	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.

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\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 13 for the discharges from Outfall 006 and unnamed tributary to Plum Creek receiving such discharges. Also, discharges from Outfall 006 shall be subject to the limitations, and monitoring and reporting requirements of Special Condition No. 18.

\*\* 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) ***	Mn (total) (mg/l) ***		Hardness ***	Mercury see Special condition No. 17	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum					30 day average	daily maximum				
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	2198	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	2198	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	2198	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	2198	500	2.0	4.0	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.

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\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 13 for the discharges from Outfall 007 and unnamed tributary to Marys River receiving such discharges. Also, discharges from Outfall 007 shall be subject to the limitations, and monitoring and reporting requirements of Special Condition No. 18.

\*\* 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\*: 008, 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. 17	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum					30 day average	daily maximum				
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	2004	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	2004	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	2004	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	2004	500	2.0	4.0	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. 13 for the discharges from Outfalls 008 and 009 and unnamed tributary to Marys River receiving such discharges. Also, discharges from Outfall 009 shall be subject to the limitations, and monitoring and reporting requirements of Special Condition No. 18.

\*\* 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. 17	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum					30 day average	daily maximum				
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1301	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1301	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1301	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1301	500	2.0	4.0	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.

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\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 13 for the discharges from Outfall 010 and unnamed tributary to Marys River receiving such discharges. Also, discharges from Outfall 010 shall be subject to the limitations, and monitoring and reporting requirements of Special Condition No. 18.

\*\* 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\*: 011, 012 (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. 17	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum					30 day average	daily maximum				
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1366	500	2.0	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1366	500	-	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1366	500	-	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1366	500	2.0	4.0	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. 13 for the discharges from Outfalls 011 and 012 and unnamed tributary to Plum Creek receiving such discharges. Also, discharges from Outfalls 011 and 012 shall be subject to the limitations, and monitoring and reporting requirements of Special Condition No. 18.

\*\* 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:

Outfall\*: 001 (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	2030	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	2030	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	2030	500	Monitor only	Measure When Sampling	-
IV	6.5-9.0	2030	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 or 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. 13 for the discharges from Outfall 001 and unnamed tributary to 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:

Outfall\*: 002 (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	1810	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	1810	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	1810	500	Monitor only	Measure When Sampling	-
IV	6.5-9.0	1810	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 or 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. 13 for the discharges from Outfall 002 and unnamed tributary to 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:

Outfall\*: 003 (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	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 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 or 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. 15 for the discharges from Outfall 003 and unnamed tributary to 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:

Outfall\*: 006, 011, 012 (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	1366	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	1366	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	1366	500	Monitor only	Measure When Sampling	-
IV	6.5-9.0	1366	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 or 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. 13 for the discharges from Outfall 006, 011 and 012 and unnamed tributary to 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 10 and approval from the Agency, the effluent of the following discharge 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) ***
I	6.5-9.0	2198	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	2198	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	2198	500	Monitor only	Measure When Sampling	-
IV	6.5-9.0	2198	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 or 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. 13 for the discharges from Outfall 007 and unnamed tributary to 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:

Outfall\*: 008, 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	2004	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	2004	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	2004	500	Monitor only	Measure When Sampling	-
IV	6.5-9.0	2004	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 or 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. 13 for the discharges from Outfall 008, 009 and unnamed tributary to 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:

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	1301	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	1301	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	1301	500	Monitor only	Measure When Sampling	-
IV	6.5-9.0	1301	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 or 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. 13 for the discharges from Outfall 010 and unnamed tributary to Lick Branch 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. IL62189  
 Effluent Limitations and Monitoring

Upon completion of Special Condition No. 11 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, 008, 009, 010, 011, 012 (Stormwater Discharge)

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

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

\* 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.

\*\* One (1) sample per year shall be collected and analyzed for the indicated parameter; however, such sampling and analysis is required only if and/or when a discharge occurs from the individual Outfall(s) identified above.

NPDES Permit No. IL0062189

Construction Authorization No. 8161-00

C.A. Date: December 3, 2014

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 922.07 acres, located in Sections 15, 16, 21, 22, 26 and 27, T4S, R5W, and Section 12 & 13, T5S, R5W, Randolph 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 coarse 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. 12 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. 12 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, 15.5 acres are incorporated into 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 2469-05. Runoff from the additional area and the expanded slurry disposal operation will initially be tributary to basin and Outfall 006. Drainage from this area will later be revised to become tributary to the surface drainage control system developed with the construction of Slurry Cell No. 5 discussed below. Refer to Condition No. 15 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. 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. 12 of this NPDES Permit. This additional area is included in the total permit acreage cited above. This area was subsequently modified as discussed below to incorporate a sedimentation basin and Outfall 010 for treatment of underground pumpage.

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.

An additional 36.00 acres as depicted in IEPA Log No. 6172-12 and 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. This 36.00 acres area was subsequently over-permitted by OMM Permit No. 426 as described below.

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. 12 of this NPDES Permit. This additional area is included in the total permit acreage cited above.

As proposed in IEPA Log No. 7317-11 and previously approved under 2011-MA-7317, 1.0 acre is incorporated into this permit for installation of a rock dust borehole. This area is located in Section 14, Township 5 South, Range 5 West, Randolph County. Alternate drainage control will be provided by silt fence, straw bale dikes and vegetation. Runoff from this area shall be monitored in accordance with Special Condition No. 12. 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: December 3, 2014

As proposed in IEPA Log No. 4279-14 and 4279-14-C, 100.00 acres identified as OMM Permit No. 426 are incorporated into this permit for construction and development of Slurry Cell No. 5 which is located immediately west of Slurry Cell No. 4. Runoff from this additional area and the expanded slurry disposal operation will be tributary to Basins 011 (Cell A and Cell B) and 012 (Cell A and Cell B). Groundwater monitoring for the slurry Cell No. 5 area will include monitoring Well Nos. W3-08R, W3-11, W3-12, W3-13, W3-14, W3-15 and W3-16. Surface drainage control and groundwater protection for this area is discussed in more detail farther below. Refer to Condition No. 15 for groundwater monitoring requirements. This additional area is included in the total permit acreage cited above.

As proposed and described in IEPA Log No. 4555-14, 20.00 acres are incorporated in to this permit for soil stockpiling. Runoff from the northern portion of this additional area will be tributary to basin and Outfall 001, Cell B, located in the OMM Permit 426 area. The southern portion of the affected area will be tributary to NPDES Outfall 008. This additional area is included in the total permit acreage cited above.

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 ten (10) 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
008	38°	09'	39"	89°	38'	23"	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 Lick Branch
011	38°	10'	21"	89°	39'	06"	Unnamed tributary to Plum Creek
012	38°	10'	44"	89°	39'	06"	Unnamed tributary to Plum Creek

Surface drainage is controlled at this facility as follows:

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.

As previously approved under Subtitle D Permit No. 2014-MO-4344, and described and depicted in IEPA Log Nos. 6240-12 and 4344-14, two cells identified as East Basin and West Basin (Harp Pond) have been constructed to improve the discharge water quality from Outfall 008. At such time that proposed Outfall 009 is approved under this permit, the discharge structure from the West Basin will be modified to direct flow to Outfall 009. The receiving waters for Outfall 009 will be the Fresh Water Lake which discharges to unnamed tributary to Marys River. When Outfall 009 becomes active, the watershed to Outfall 008 will be reduced to an area of approximately 2.0 acres of stormwater runoff.

As proposed in IEPA Log No. 4344-14, however not previously approved under the Subtitle D Permit No. 2014-MO-4344 discussed above, under this NPDES Permit a drop inlet spillway may be installed in the Recirculation Lake to convey any overflow into the East Basin.

NPDES Permit No. IL0062189

Construction Authorization No. 8161-00

C.A. Date: December 3, 2014

As previously approved under Subtitle D Permit No. 2014-MO-4343, and described in IEPA Log No. 4343-14, an additional sediment cell identified as Basin 012 Cell B was approved to be constructed upstream of Basin and Outfall 006 to further improve the discharge water quality from this Outfall. The addition of Basin 012 Cell B approved under this permit proposed no additional loading or expansion of Outfall 006 as this area was tributary to the referenced Outfall. Under this NPDES Permit basin, Outfall 006 will be eliminated with the construction and development of Slurry Cell 5. At such time that Basin 006 is eliminated, the discharge from Basin 012 Cell B will be redirected to Basin 012 Cell A which will be constructed with the development of Slurry Cell 5 (OMM Permit No. 426).

As previously approved under Subtitle D Permit No. 2014-MO-4345, and described in IEPA Log No. 4345-14, a 12.5" I.D. (inside diameter) HDPE pipe will be installed to direct the low flows from the Cell 2 refuse disposal area which will result from coarse refuse being placed within this RDA as part of the reclamation of this area. The low flows will be directed through the bypass HDPE pipe to a downdrain structure which will convey this flow to the closed slurry circuit system (Recirculation Pond). High flows due to rainfall will overflow the bypass pipe and will continue to be conveyed through Drain D to Pond and Outfall 002. As this bypass pipe is proposed to facilitate reclamation activities, this pipe shall be removed or grouted throughout the entire length as part of final reclamation of the facility.

As proposed in IEPA Log No. 8455-10 and 8455-10-A, basin and Outfall 010 will be constructed at the south airshaft area previously approved under Subtitle D Permit No. 2010-MO-9362 as discussed above. This basin will treat underground pumpage from the airshaft.

As proposed and described in IEPA Log No. 4279-14 and 4279-14-C (OMM Permit No. 426 area), four (4) basin cells with two discharges identified as Outfalls 011 and 012 will be constructed to control the runoff from the outslopes of Refuse Disposal Area Cell 5. Outfall 011 will be the discharge from Basin 011 Cell A and Outfall 012 will be the discharge from Basin 012 Cell A. It is noted that as discussed above Basin 012 Cell B was previously approved to be constructed. At such a time that Basin 012 Cell A is constructed and the discharge from Basin 012 Cell B will be directed to Cell A, the construction of the RDA Cell 5 will eliminate Basin and Outfall 006.

Coarse and fine coal refuse was previously disposed in refuse disposal areas identified as Slurry Cell Nos. 1, 2, and 3. Additional Slurry Cell Nos. 4 and 5 are incorporated under this permit.

Foundation preparation for Slurry Cell No. 5 shall consist of the construction of a four (4) foot compacted clay liner. Compacted clay liners of four (4) foot thickness shall also be constructed for Sedimentation Basins 011 (Cell A and Cell B) and 012 (Cell A and Cell B). The liner geometry for Slurry Cell No. 5, the surrounding embankment and all sedimentation basin cells will consist of scarification and re-compaction of twelve (12) inches of in-situ material overlain by three (3) successive lifts of twelve (12) inches of material. The final compacted total thickness of these liners shall be a minimum of forty-eight (48) inches.

All drainage control structures (ditches) associated with or conveying runoff from Slurry Cell No. 5 shall also be constructed by scarification and re-compaction of eight (8) inches of in-situ material overlain by three (3) successive lifts of eight (8) inches of material. The final compacted total thickness of the liners constructed for these drainage control structures shall be a minimum of thirty-two (32) inches.

Construction of all four (4) foot compacted clay liners for the slurry cell, sedimentation basins and associated ditches shall also be subject to and in accordance with the specifications and testing requirements of Condition No. 12. With prior Agency approval as to thickness and installation procedures, an HDPE synthetic liner may be utilized in lieu of the compacted clay liners proposed for the sedimentation basin cells and drainage control structures.

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-7331, 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 Nos. 3456-05 and 2237-06, respectively. Lime sludge may be applied to Cell 1, Cell 2, Cell 3 Phase 1 and Cell 3 Phase 2. Utilization of lime sludge from these sources is subject to Condition No. 13.

As previously approved under Subtitle D Permit No. 2012-MD-6235, water treatment Plant Lime Sludge from Prairie State Generating Station (PSGS) may be used as an agricultural lime substitute on the coarse and fine refuse disposal areas as described in IEPA Log No. 6235-12. The PSGS material may be utilized to neutralize the coarse refuse and slurry Cells 1, 2, 3 and 4. Utilization of lime sludge from these sources is subject to Condition No. 13.

NPDES Permit No. IL0062189

Construction Authorization No. 8161-00

C.A. Date: December 3, 2014

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 Cell 1, Cell 2, Cell 3 Phase 1 and Cell 3 Phase 2. Utilization of water treatment lime sludge for coal refuse neutralization is subject to requirements of Condition No. 13.

Application rates for any combination of water treatment plant lime sludge approved herein 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 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 and shall be subject to requirements of Condition No. 13.

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

As described in IEPA Log No. 0146-08 and previously approved under Subtitle D Permit No. 2008-MW-0146, coal combustion waste from sources identified as Anheuser Busch, University of Illinois (gypsum/ash mixture) and SIU-Carbondale (fly/bottom ash mixture) is approved for disposal in areas depicted in IEPA Log No. 0146-08. Disposal of CCW in approved areas shall be in accordance with procedures outlined in IEPA Log No. 0080-98 which was originally approved under Subtitle D Permit No. 2002-MW-6440-1 and which is replaced by the above referenced Subtitle D Permit. Annual disposal of CCW from Anheuser Busch, University of Illinois and SIU-Carbondale shall be limited to 25,000, 37,000 and 12,000 tons, respectively. Disposal of CCW from the sources approved herein shall be subject to the requirements of Condition No. 14. Monitoring of groundwater Well Nos. W3-04, W3-08 and W3-09, associated with CCW disposal, shall be as outlined in Condition No. 15.

Groundwater monitoring at this facility includes Well Nos. W3-04, W3-05, W3-06, W3-07, W3-08, W3-08R, W3-09, W3-10, W3-11, W3-12, W3-13, W3-14, W3-15 and W3-16. It is noted that Well Nos. W3-04, W3-05, W3-06, W3-07, W3-08, W3-09, W3-10, are also identified as GWM-4, GWM-5, GWM-6, GWM-7, GWM-8, GWM-9 and GWM-10 respectively. Monitoring requirements for wells located at this facility are outlined in Condition No. 15.

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-6440-1, 2006-MD-7331, 2008-MW-0146 and 2010-MO-9362, 2012-MD-6235, 2012-MO-6240, 2014-MO-4343, 2014-MO-4344 and 2014-MO-4345 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 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.

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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.
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, for the parameters designated as 1M through 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 the standards of 35 Ill. Adm. Code 406.106, a Supplemental Permit must be obtained. Discharge from ponds is not allowed unless applicable effluent and water quality standards are met in 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 lime ( $\text{Ca}(\text{OH})_2$ ), 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.
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).



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- 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. Utilized 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).
12. The four (4) foot thick compacted clay liners to be constructed beneath Refuse Disposal Area Cell 5, Sedimentation Basins 011 Cell A and B and 012 Cell A and B as well as the thirty-two (32) inch compacted clay liners to be constructed in all associated and connecting drainage control structures shall be subject to the following specifications and procedures.

**Construction Specifications**

- a. All soils to be used for compacted clay liner shall be free of grass, vines, vegetation, and rock or stones greater than 4 inches in diameter.
- b. At the location of the compacted clay liners, approximately 18 inches of material shall be removed following topsoil removal. Approximately 6 inches of the resulting base material shall be scarified and re-compacted to achieve the minimum permeability requirements cited below.
- c. Each successive soil lift shall be placed to a loose thickness sufficient to result in a compacted lift of approximately 8 or 12 inches, as appropriate.
- d. Each soil lift shall be compacted to the minimum Standard Proctor (ASTM D698) density identified in Item No. 12(q) below, at moisture content 0% to 5% above the optimum moisture content of the soil.
- e. Inter-lift surfaces shall be adequately scarified to ensure inter-lift bonding.
- f. Liner construction shall be performed to ensure consistent achievement of density, moisture content, and hydraulic conductivity for each successive lift.
- g. The placement of frozen material or the placement of material on frozen ground shall be prohibited.
- h. Contemporaneous placement or protective covering shall be provided to prevent drying, desiccation and/or freezing where necessary.
- i. Liner construction shall be completed in a manner which reduces void spaces within the soil and liner.
- j. All construction stakes shall be removed during construction, and all test holes are to be backfilled with bentonite.
- k. The compacted clay liner shall be constructed in a manner to achieve a uniform barrier with a hydraulic conductivity of  $1 \times 10^{-7}$  cm/sec.
- l. In the event that acceptable compaction results are not achieved, the soil lift shall be re-processed or removed and replaced. If moisture content is less than optimum, or greater than 5% above optimum, the failing material shall be wetted or dried to moisture content within specification and re-compacted. If the dry density is below specification, the failing material shall be re-compacted until a passing test is achieved.
- m. In the event of a failing conductivity test, the soil may be removed or re-compacted and retested until a passing result is obtained; or the soil immediately above and below the test specimen from the same Shelby tube may be tested. If both tests pass, the original test shall be nullified. If either test fails, that portion of the liner shall be rejected and shall be reconstructed and retested until passing results are obtained. The limits of necessary reconstruction shall be determined by additional sampling and testing within the failed region, thereby isolating the failing area of work.

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**Testing Specifications**

- n. Prior to initiating soil liner construction, borrow soils shall be identified, qualified, and verified. At a minimum, a representative sample of each soil type identified within the borrow area is to be collected and analyzed for gradation, compaction, and hydraulic conductivity characteristics.
  - o. Samples collected from the borrow area shall be evaluated in accordance with ASTM D422, D4318 and D2487 to ensure classification criteria are met.
  - p. Samples collected from the borrow area shall be tested in accordance with ASTM D698 to determine maximum dry density and optimum moisture content of the soil.
  - q. Samples collected from the borrow area shall be compacted to 90% and 95% standard Proctor density at or near optimum moisture content. The hydraulic conductivity of the re-compacted samples shall be determined in accordance with ASTM D5084 procedures. The results of this testing shall be used to establish the minimum dry density for soil liner compaction necessary to achieve a hydraulic conductivity of  $1 \times 10^{-7}$  cm/sec or less.
  - r. Moisture and density testing by nuclear methods (ASTM D2922 and D3017) shall be conducted at a rate of at least one test per 1 acre per lift placed. Testing locations shall be random, and shall not be known to the earthwork contractor prior to lift placement.
  - s. Survey checks shall be conducted along established cross-sections to verify liner thickness. To verify liner thickness, the survey checks shall be taken before and after liner construction.
13. 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		

In addition quarterly notification of the volume (tonnage) of water treatment plant lime sludge and/or sewage treatment plant sludge utilized shall be submitted to this Agency. These quarterly reports shall be submitted on the schedule outlined in Special Condition No. 5 of this Permit.

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

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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 14 (a) above shall be submitted to the Agency in accordance with Special Condition Nos. 3 and 5 of this NPDES Permit.
  - 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 loaded 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. 14 (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.
15. Groundwater monitoring at this facility consists of Well Nos. W3-04, W3-05, W3-06, W3-07, W3-08, W3-08R, W3-09, W3-10, W3-11, W3-12, W3-13, W3-14, W3-15 and W3-16.
- a. Ambient background monitoring shall be performed for all referenced wells for which such background monitoring has not been previously completed. Such ambient monitoring shall consist of six (6) samples collected during the first year (approximately bi-monthly) following well installation but no later than during the first year of operation or disturbance to determine ambient background concentrations. Background monitoring shall include the following list of constituents:

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

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Monitoring Well No. W3-16 to be located within the OMM Permit No. 225 area shall be installed within 30 days following permit issuance with ambient background monitoring to be initiated immediately. In the event that Monitoring Well No. W3-16 is installed and background monitoring initiated as required, installation of Monitoring Well Nos. W3-08R, W3-14 and W3-15 may be delayed until such time the Sedimentation Basins 011 and 012 and Slurry Cell No. 5 disposal area construction has progressed to the point that risk has been minimized of these wells being destroyed by construction equipment working in the area

b. For all existing wells routine monitoring shall be performed on a quarterly basis as follows. In addition, following the ambient monitoring as required under Condition No. 15(a) above, routine monitoring shall continue on a quarterly basis as follows:

i. Monitoring Well Nos. W3-04, W3-08, W3-08R, W3-09, W3-11, W3-12, W3-13, W3-14, W3-15 and W3-16 shall continue to be monitored quarterly for the contaminants identified in Condition No. 15(a) above.

ii. Monitoring Well Nos. W3-05, W3-06, W3-07 and W3-10 shall be monitored quarterly as required by IDNR/OMM for the following list of constituents:

Chloride	Total Dissolved Solids
Iron (dissolved)	Hardness
Iron (total)	Acidity
Manganese (dissolved)	Alkalinity
Manganese (total)	pH
Sulfate	Static Water Elevation
Barium	

c. Following completion of active mining and reclamation, post-mining monitoring of the above referenced wells shall consist of six (6) samples collected during a 12-month period (approximately bi-monthly) to determine post-mining concentrations. Post-mining monitoring shall include the list of constituents identified in Condition No. 15(a) above.

d. Groundwater monitoring reports shall be submitted to the Agency in accordance with Special Condition Nos. 3 and 5 of this NPDES permit.

e. A statistically valid representation of background and/or post mining water quality required under Condition No. 15(a) and 15(c) above shall be submitted utilizing the following method. This method shall be used to determine the upper 95 percent confidence limit for each parameter listed above.

Should the Permittee determine that an alternate statistical method would be more appropriate based on the data being evaluated, the Permittee may request utilization of such alternate methodology. Upon approval from the Agency, the alternate methodology may be utilized to determine a statistically valid representation of background and/or post mining water quality.

This method should be used to predict the confidence limit when single groundwater samples are taken from each monitoring (test) well.

i. Determine the arithmetic mean  $(\bar{X}_b)$  of each indicator parameter for the sampling period. If more than one well is used, an equal number of samples must be taken from each well.

$$\bar{X}_b = \frac{X_1 + X_2 + \dots + X_n}{n}$$

Where:

$\bar{X}_b$  = Average value for a given chemical parameter

$X_n$  = Values for each sample

n = the number of samples taken

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- ii. Calculate the background and/or post mining variance ( $S_b^2$ ) and standard deviation ( $S_b$ ) for each parameter using the values ( $X_n$ ) from each sample of the well(s) as follows:

$$S_b^2 = \frac{(X_1 - \bar{X}_b)^2 + (X_2 - \bar{X}_b)^2 + \dots + (X_n - \bar{X}_b)^2}{n - 1}$$

$$S_b = \sqrt{S_b^2}$$

- iii. Calculate the upper confidence limit using the following formula:

$$CL = \bar{X}_b \pm t \sqrt{1 + 1/n} (S_b)$$

Where:

CL = upper confidence limit prediction  
 (upper and lower limits should be calculated for pH)  
 t = one-tailed t value at the required significance level and at n-1 degrees of freedom from Table 1  
 (a two-tailed t value should be used for pH)

- iv. If the values of any routine parameter for any monitoring well exceed the upper confidence limit for that parameter, the permittee shall conclude that a statistically significant change has occurred at that well.
- v. When some of the background and/or post mining values are less than the Method Detection Limit (MDL), a value of one-half (1/2) the MDL shall be substituted for each value that is reported as less than the MDL. All other computations shall be calculated as given above.

If all the background and/or post mining values are less than the MDL for a given parameter, the Practical Quantitation Limit (PQL), as given in 35 Ill. Adm. Code Part 724 Appendix I shall be used to evaluate data from monitoring wells. If the analytical results from any monitoring well exceed two (2) times the PQL for any single parameter, or if they exceed the PQLs for two or more parameters, the permittee shall conclude that a statistically significant change has occurred.

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Table 1  
Standard t-Tables Level of Significance

Degrees of freedom	t-values (one-tail)		t-values (two-tail)*	
	99%	95%	99%	95%
4	3.747	2.132	4.604	2.776
5	3.365	2.015	4.032	2.571
6	3.143	1.943	3.707	2.447
7	2.998	1.895	3.499	2.365
8	2.896	1.860	3.355	2.306
9	2.821	1.833	3.250	2.262
10	2.764	1.812	3.169	2.228
11	2.718	1.796	3.106	2.201
12	2.681	1.782	3.055	2.179
13	2.650	1.771	3.012	2.160
14	2.624	1.761	2.977	2.145
15	2.602	1.753	2.947	2.131
16	2.583	1.746	2.921	2.120
17	2.567	1.740	2.898	2.110
18	2.552	1.734	2.878	2.101
19	2.539	1.729	2.861	2.093
20	2.528	1.725	2.845	2.086
21	2.518	1.721	2.831	2.080
22	2.508	1.717	2.819	2.074
23	2.500	1.714	2.807	2.069
24	2.492	1.711	2.797	2.064
25	2.485	1.708	2.787	2.060
30	2.457	1.697	2.750	2.042
40	2.423	1.684	2.704	2.021

Adopted from Table III of "Statistical Tables for Biological Agricultural and Medical Research" (1947, R.A. Fisher and F. Yates).

\* For pH only when required.

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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 or 5 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, IL 62794-9276

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

Attn: Compliance Assurance Section

The Permittee may choose to submit electronic DMRs (NetDMR) instead of submitting paper DMRs. Information, including registration information for the NetDMR program can be obtained on the IEPA website, <http://www.epa.state.il.us/water/net-dmr/index.html>.

Should electronic filing (NetDMR) be elected for DMR monitoring and reporting requirements, a written notification shall be submitted to the Mine Pollution Control Program at the Marion, Illinois address indicated above that such electronic monitoring has been elected providing an indication of the date and/or quarter in which this electronic filing will be initiated.

**Special Condition No. 4:** Completed Discharge Monitoring Report (DMR) forms as well as upstream and downstream 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 (DMR) forms using one such form for each Outfall and Discharge Condition each month. In the event that an Outfall does not discharge during a monthly reporting period or under a given Discharge Condition, the DMR form shall be submitted with "No Discharge" indicated.

In the event that electronic filing is being utilized, any and all monitoring results, other than NPDES outfall discharge results reported through NetDMR, shall be submitted to the Agency at the addresses indicated in Special Condition No. 3 above.

**Special Condition No. 5:** Completed periodic monitoring and reporting not required under Special Condition No. 4 above; such as, groundwater monitoring, coal combustion waste analyses, water treatment plant lime sludge analyses, 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

**Special Condition No. 6:** The Agency may revise or modify the permit consistent with applicable laws, regulations or judicial orders.

**Special Condition No. 7:** 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 Conditions

**Special Condition No. 8:** 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. 9:** 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 Condition No. 10:** 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 to request the discharge be classified as a reclamation area discharge. The Agency will notify the permittee upon approval of the change.

**Special Condition No. 11:** The special stormwater effluent standards apply only on approval from the Agency. To obtain approval, a request with supporting documentation shall be submitted to request 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. 12:** 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. 13:** Sediment Pond Operation and Maintenance (Outfalls 001, 002, 006, 007, 008, 009, 010, 011 and 012):

- a. During all Discharge Conditions, in addition to the contaminants listed on the effluent page, discharges from Outfalls 001, 002, 006, 007, 008, 009, 010, 011 and 012 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 receives discharges from Outfalls 001, 002, 007, 008 and 009, unnamed tributary to Lick Branch which receives discharges from Outfall 010, and the unnamed tributary to Plum Creek which receives discharges from Outfalls 006, 011 and 012.
  - 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. Marys River, unnamed tributary to Lick Branch, 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, unnamed tributary to Lick Branch 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 13(a) and (b) shall be submitted to the Agency in accordance with Special Condition Nos. 3 and 4 above.



Special Conditions

**Special Condition No. 14:** Sediment Pond Operation and Maintenance (Outfall 003):

- a. No discharge is allowed from Outfall No. 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
003	15:1

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 No. 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 Outfall 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, 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.
- c. All results of sampling and monitoring performed in accordance with Special Condition 14(a) and (b) shall be submitted to the Agency in accordance with Special Condition Nos. 3 and 4 above.

**Special Condition No. 15:** Sediment Pond Operation and Maintenance (Outfall 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 Outfall 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 receives discharges from Outfall 003.

## NPDES Permit No. IL0062189

Special Conditions

- i. All sampling and monitoring required under 15(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.
- c. All results of sampling and monitoring performed in accordance with Special Condition 15(a) and (b) shall be submitted to the Agency in accordance with Special Condition Nos. 3 and 4 above.

**Special Condition No. 16:** Data collected in accordance with Special Condition Nos. 13, 14 and 15 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. 17:** Mercury shall be monitored quarterly until a minimum of ten (10) samples have been collected. This Mercury monitoring is required only under Discharge Condition Nos. I and/or IV and only during quarters in which there are discharges from the outfall which occur under Discharge Condition Nos. I and/or IV. 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 0.5 ng/l (nanograms/liter). The results of such testing must be reported in "ng/l" (nanograms/liter) and submitted with the quarterly Discharge Monitoring Reports (DMRs). 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.

**Special Condition No. 18:** Discharges from Outfall Nos. 002, 003, 006, 007, 008, 009, 010, 011 and 012 shall be monitored twice annually with such monitoring spaced at approximately 6-month intervals during the entire 5-year term of this NPDES Permit. Sampling of the discharges shall be performed utilizing the grab sampling method and analyzed for total (unfiltered) concentrations. The results of the sampling required under this Special Condition shall be submitted twice annually to the Agency in January and July of each calendar year to the addresses indicated in the Special Condition No. 2 above. The parameters to be sampled and the detection limits (minimum reported limits) are as follows:

<u>Parameter</u>	<u>Detection Limit</u>
Arsenic	0.05 mg/l
Barium	0.50 mg/l
Cadmium	0.001 mg/l
Chromium (hexavalent)	0.01 mg/l
Chromium	0.05 mg/l
Copper	0.005 mg/l
Lead	0.05 mg/l
Manganese	0.50 mg/l
Mercury*	1.00 ng/l**
Nickel	0.005 mg/l
Phenols	0.005 mg/l
Selenium	2.000 µg/l***
Silver	0.003 mg/l
Zinc	0.025 mg/l

\* Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E.

\*\* 1.00 ng/l (nanogram/liter) = 1 part per trillion.

\*\*\* µg/l = micrograms/liter