

NPDES Permit No. IL0061727  
Notice No. 5867c

Public Notice Beginning Date: **January 11, 2012**

Public Notice Ending Date: **February 10, 2012**

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  
217/782-0610

Name and Address of Discharger:

The American Coal Company  
P.O. Box 727  
Harrisburg, IL 62946

Name and Address of Facility:

The American Coal Company  
Galatia Mine  
1 mile east of Galatia, Illinois  
(Saline and Hamilton Counties)

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

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

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

The applicant operates an existing underground coal mine (SIC 1222). Mine operations result in the discharge of alkaline mine drainage, acid mine drainage from refuse disposal area, surface runoff from reclamation areas, stormwater discharges, and sanitary wastewater.

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

Various operational plan changes to the previously existing facilities.

Addition of OMM Permit No. 352 (Millennium Portal) and No. 401 (Bunkhouse Refuse Disposal) Areas and miscellaneous acreage adjustments incorporates an additional 384.4 acres into the NPDES permit area.

Revised and modified groundwater monitoring plan.

This facility has six (6) existing discharges which are located in Saline 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 tributary to Middle Fork Saline River	37° 49' 59"	88° 35' 03"
002ES	Black's Creek	37° 49' 06"	88° 35' 45"
003	Middle Fork Saline River	37° 48' 45"	88° 35' 46"
005	Unnamed tributary to Long Branch Creek	37° 53' 11"	88° 33' 45"
A02	Pond 002	37° 49' 16"	88° 35' 14"
A05	Pond 005	37° 53' 10"	88° 33' 45"

The stream segment ATG-05 of Middle Fork Saline River receiving the flow from the unnamed tributary into which Outfall 001 discharges is not on the draft 2010 303(d) list of impaired waters.

The stream segment of Black's Creek receiving the discharge from Outfall 002ES is not on the draft 2010 303(d) list of impaired waters.

The stream segment ATG-04 of Middle Fork Saline River receiving the discharge from Outfall 003 is not on the draft 2010 303(d) list of impaired waters.

The stream segment ATFK of Long Branch Creek receiving the flow from the unnamed tributary into which Outfall 005 discharges is not on the draft 2010 303(d) list of impaired waters.

Application is made for two (2) new discharges which are located in Saline, 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>
004	Unnamed tributary to Middle Fork Saline River	37° 49' 39"	88° 38' 28"
A04	Pond 004	37° 50' 09"	88° 38' 17"

The stream segment ATG-05 of Middle Ford Saline River receiving the flow from the unnamed tributary into which Outfall 004 discharges is not on the draft 2010 303(d) list of impaired waters.

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

Outfalls: 001, 004

Discharge Condition	Parameters										
	Total Suspended Solids (3) (mg/l)		Iron (total) (3), (4) (mg/l)		pH (3) (S.U.)	Alkalinity/Acidity (3)	Sulfate (1) (mg/l)	Chloride (mg/l)	Hardness (5)	Flow (MGD)	Settleable Solids (2) (ml/l)
	30 day average	daily maximum	30 day average	daily maximum							
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1434	500	Monitor Only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1434	500	Monitor Only	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1434	500	Monitor Only	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1434	500	Monitor Only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
  - II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24 hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 5.21 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 001 and 004, 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 acid mine discharge from this facility shall be monitored and limited at all times as follows:

Outfall: 002ES

Discharge Condition	Parameters												
	Total Suspended Solids (3) (mg/l)		Iron (total) (3) (4) (mg/l)		pH (3) (S.U.)	Alkalinity/Acidity (3)	Sulfate (1) (mg/l)	Chloride (mg/l)	Mn (total) (mg/l)	Hardness (5)	Mercury	Flow (MGD)	Settleable Solids (2) (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	2000	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	3500	See Special Condition No. 13	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	3500	See Special Condition No. 13	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.0-9.0	Alk.>Acid	3500	See Special Condition No. 13	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 described in Special Condition No. 13.
- II In accordance with 35 Ill. Adm. Code 406.110(b), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 1-year, 24-hour precipitation event, but 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 1-year, 24-hour precipitation event for this area is considered to be 5.21 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). The 10-year, 24-hours precipitation grant for this area is considered to be 5.21 inches.
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. At such time that receiving stream flow subsides, 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 acid mine drainage discharges are contained in 35 Ill. Adm. Code 406.110(b), (c), and (d).
- (3) Effluent limitations for mine discharges are contained in 35 Ill. Adm. Code 406.106.
- (4) Discharges from Outfall 002, 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 limitation.

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									
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	3500	See Special Condition No. 13	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	3500	See Special Condition No. 13	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	3500	See Special Condition No. 13	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.0-9.0	Alk.>Acid	3500	See Special Condition No. 13	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 described in Special Condition No. 13.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24 hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 5.21 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, 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 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: 005

Discharge Condition	Parameters										
	Total Suspended Solids (3) (mg/l)		Iron (total) (3), (4) (mg/l)		pH (3) (S.U.)	Alkalinity/ Acidity (3)	Sulfate (1) (mg/l)	Chloride (mg/l)	Hardness (5)	Flow (MGD)	Settleable Solids (2) (ml/l)
	30 day average	daily maximum	30 day average	daily maximum							
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	833	500	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	833	500	Monitor only	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	833	500	Monitor only	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	833	500	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24 hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 5.21 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 005, 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 sanitary discharge from this facility shall be monitored and limited at all times as follows:

Outfall: A02

Parameters									
Total Suspended Solids				CBOD <sub>5</sub>				pH (3) (S.U.)	Flow (MGD)
Load Limits (1) (lbs/day)		Concentration Limits (2) (mg/l)		Load Limits (1) (lbs/day)		Concentration Limits (2) (mg/l)			
30 day average	daily maximum	30 day average	daily maximum	30 day average	daily maximum	30 day average	daily maximum		
4.5	9.0	30	60	3.8	7.6	25	50	6.0-9.0	Measure When Sampling

- (1) Load limits are calculated as follows:  
Average Flow (MGD) x Average or Maximum Concentration Limit (mg/l) X 8.34 = lbs/day
- (2) General effluent standards for deoxygenating wastes are contained in 35 Ill. Adm. Code 304.120.
- (3) pH shall not be less than 6.0 nor greater than 9.0 S.U. pursuant to 35 Ill. Adm. Code 304.125(a).

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

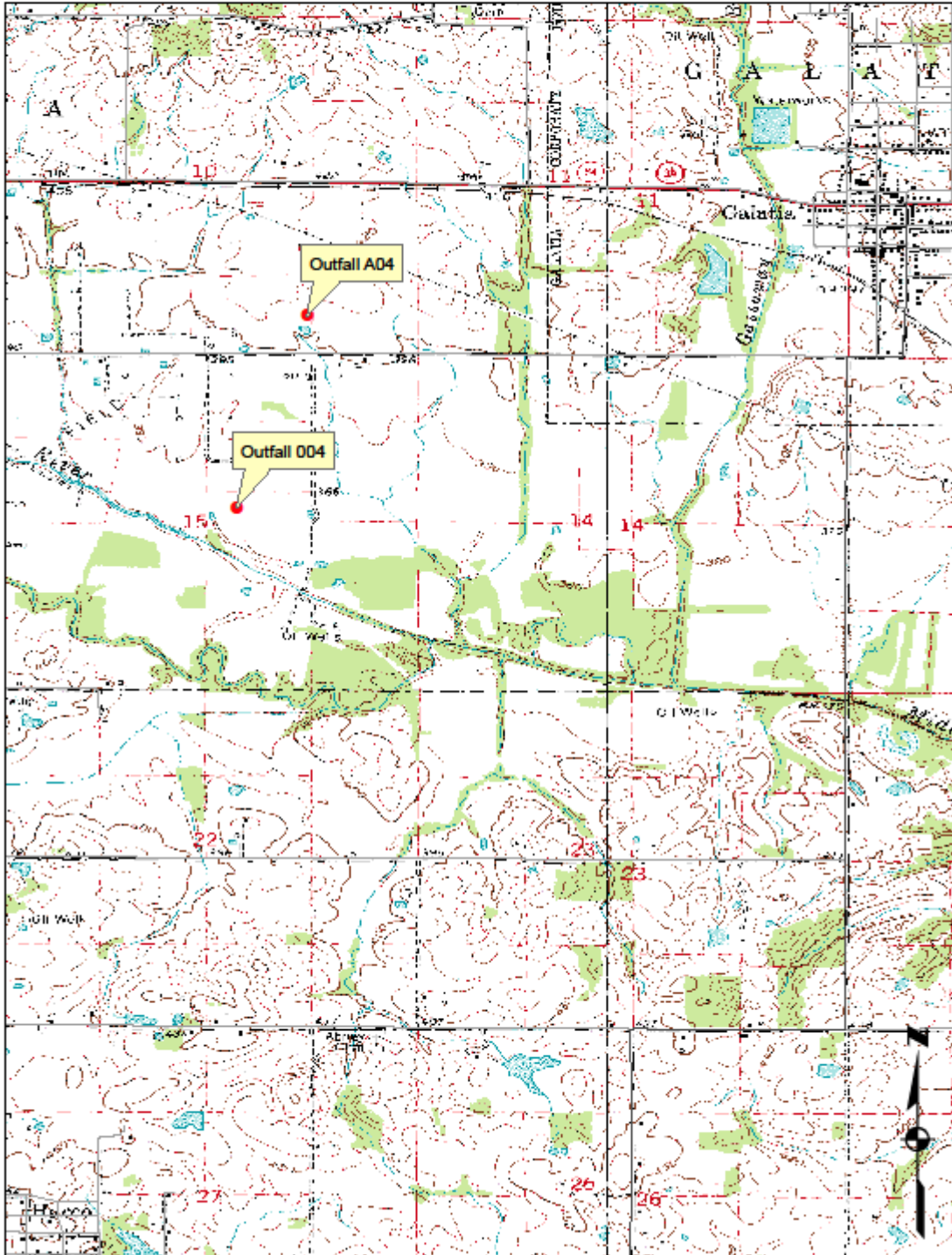
Outfall: A04, A05

Parameters									
Total Suspended Solids				CBOD <sub>5</sub>				pH (3) (S.U.)	Flow (MGD)
Load Limits (1) (lbs/day)		Concentration Limits (2) (mg/l)		Load Limits (1) (lbs/day)		Concentration Limits (2) (mg/l)			
30 day average	daily maximum	30 day average	daily maximum	30 day average	daily maximum	30 day average	daily maximum		
2.5	5.0	30	60	2.1	4.2	25	50	6.0-9.0	Measure When Sampling

- (1) Load limits are calculated as follows:  
Average Flow (MGD) x Average or Maximum Concentration Limit (mg/l) X 8.34 = lbs/day
- (2) General effluent standards for deoxygenating wastes are contained in 35 Ill. Adm. Code 304.120.
- (3) pH shall not be less than 6.0 nor greater than 9.0 S.U. pursuant to 35 Ill. Adm. Code 304.125(a).

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 4, 7, 11, 14, 15, 17, 18, 19, 26 and 27, Township 8 South, Range 6 East, and Section 24, Township 8 South, Range 5 East, and Sections 23 and 24, Township 7 South, Range 5 East, and Sections 18 and 29, Township 7 South, Range 6 East, 3rd P.M., Saline County, and Section 13, Township 7 South, Range 5 East, Hamilton County, Illinois.

**The American Coal Company - Galatia Mine**  
**NPDES No. IL0061727**  
Saline County  
Township 8 South, Range 5 East

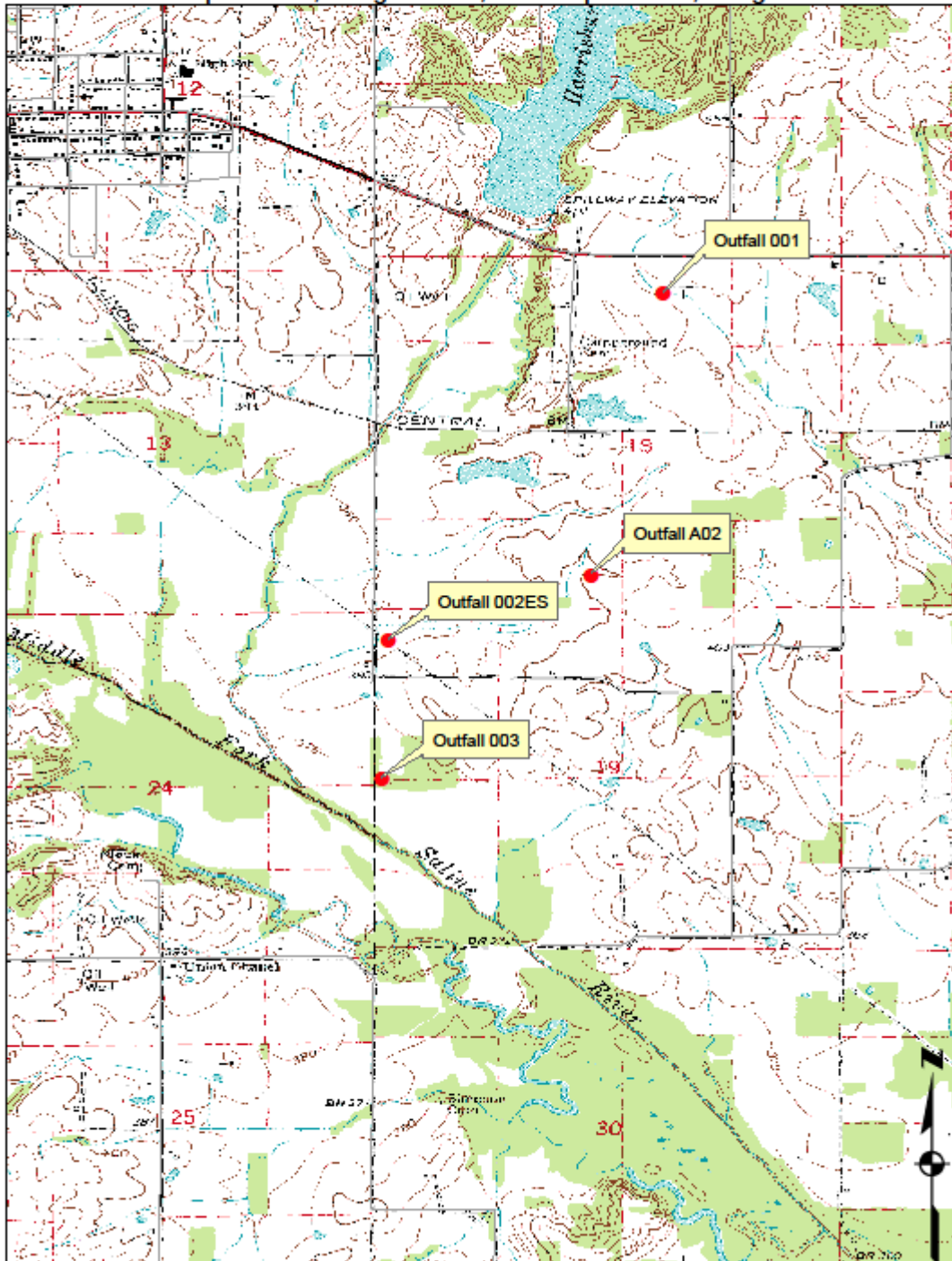




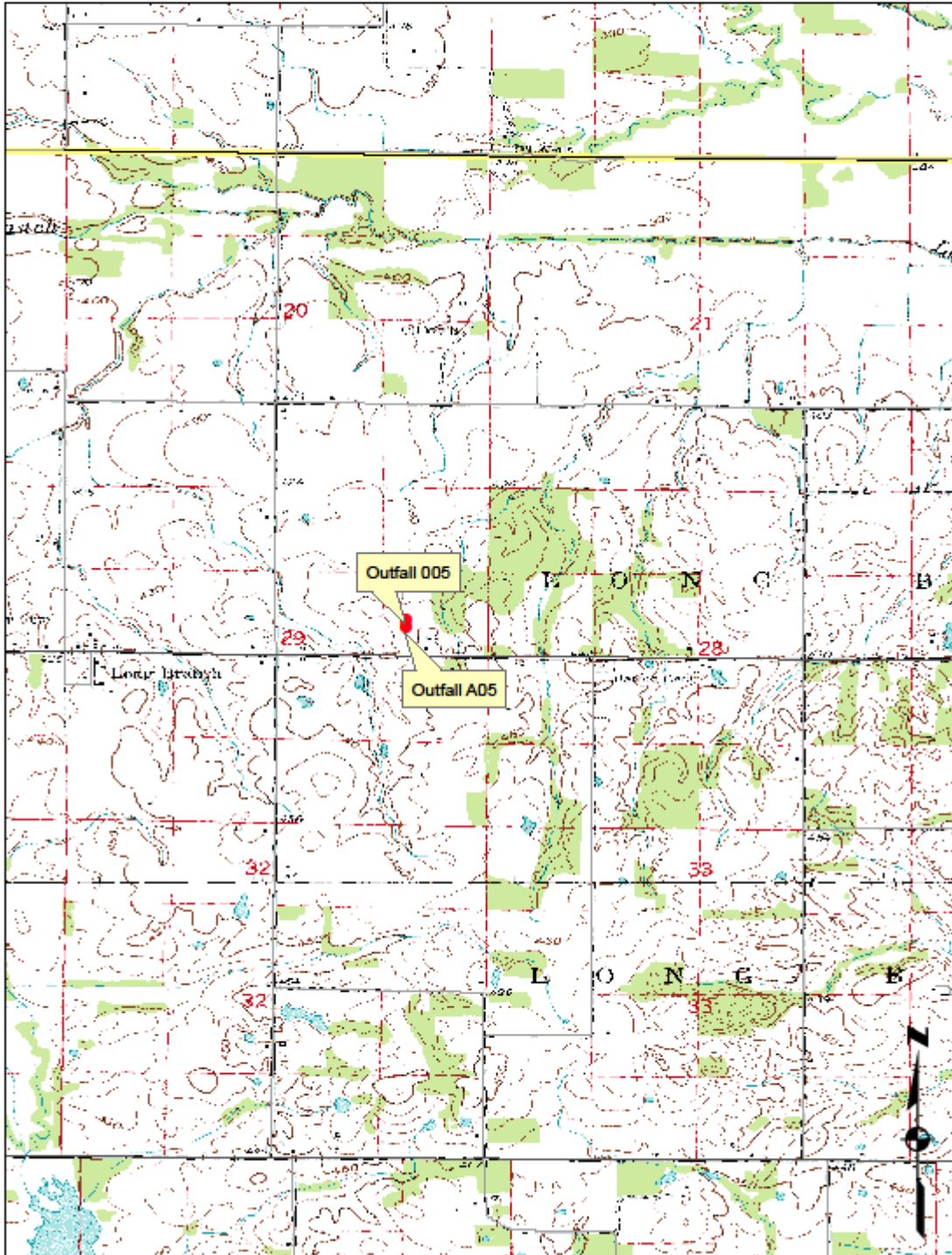
### The American Coal Company - Galatia Mine NPDES No. IL0061727

Saline County

Township 8 South, Range 5 East, Township 8 South, Range 6 East



**The American Coal Company - Galatia Mine**  
**NPDES No. IL0061727**  
Saline County  
Township 7 South, Range 6 East



**Antidegradation Assessment  
The American Coal Company  
Galatia Mine  
NPDES Permit No. IL0061727  
Saline and Hamilton Counties  
March 3, 2011**

The subject facility has applied for the renewal of the NPDES permit for the surface operations of an underground mine. The facility is proposing to change the location of the normal discharge of Outfall 002 from Black's Creek to the Middle Fork Saline River through the outfall pipe of Outfall 003. Outfall 002 currently discharges to Black's Creek and then to the Middle Fork Saline River. The combined flow through the outfall pipe to the Middle Fork Saline River will be called Outfall 003 and will consist of discharges of the existing Outfall 003 and Outfall 002. The NPDES permit will retain Outfall 002 for any discharge from the emergency spillway in the case of a large precipitation event, such as the 100-year storm. Outfall 003 discharges directly to the Middle Fork Saline River. The discharges from Outfall 002 and 003 will be controlled such that water quality standards will be met in the Middle Fork Saline River.

The American Coal Company is proposing to relocate its 002 discharge to better manage chlorides mixing. The discharge from Outfall 002 is above the chloride water quality standard of 500 mg/L and therefore needs to take advantage of mixing to meet water quality standards in the receiving water. Outfall 002 was permitted to discharge to Black's Creek when there is sufficient stream flow to meet water quality standards. However, during the summer months (especially late summer), Black's Creek is typically dry. Although Outfall 002 would discharge only after significant precipitation during dry periods, there is often no corresponding flow in the receiving stream for proper mixing. This is due to the 110-acre Harrisburg Lake Reservoir immediately upstream. Because it is typically below discharge elevation during the late summer, it collects and holds local storm event runoff that would otherwise flow to the downstream intersection with the 002 discharge.

The information in this antidegradation assessment came from the September 22, 2010 letter from The American Coal Company and the attachment titled, "Antidegradation Assessment, The American Coal Company, Proposed Modification for Relocating the 002 NPDES discharge" and the November 4, 2010 letter from the American Coal Company.

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

The subject facility discharges to the Middle Fork Saline River at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. The Middle Fork Saline River is classified as a General Use Water. The Middle Fork Saline River is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor is it given an integrity rating in that document. The Middle Fork Saline River, Waterbody Segment, ATG-04, is not listed on the draft Illinois Integrated Water Quality Report and Section 303(d) 2010 List. Aquatic life use is fully supported. The Middle Fork Saline River is not subject to enhanced dissolved oxygen standards.

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

Outfall 002 will be classified as acid mine drainage. Since this outfall is currently located approximately 3,500 feet upstream, the loading to the Middle Fork Saline River will not increase. The primary constituent of this discharge is chloride.

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

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

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

The purpose of relocating Outfall 002 is to discharge the effluent in a receiving stream that has sufficient flow to assure that water quality standards are met in the receiving stream.

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

Establishment of a separate 002 discharge site near the existing 003 discharge site on the Middle Fork Saline River could be permitted, but doing so would needlessly disturb the stream and the 100-foot stream buffer zone.

Desalination processes, such as reverse osmosis, and related processes, to separate the soluble chlorides from mine water are not cost effective. Equipment maintenance and residual waste disposal requirements would require an inordinate effort and expense associated with producing drinking water from sea water. Evaporative ponds do not work, as the evaporation rate is exceeded by precipitation. Large scale deep well injection is also too costly, especially considering probable plugging of the formation cracks near the release point.

Utilization of the high chlorides water for irrigation of crops and/or other purposes, such as golf course irrigation, would not be viable due to the adverse affect of the high chlorides on root medium.

Utilizing the high chlorides water for preparation plant processing is an option that is being used presently at the facility. However, the plant can use only a limited amount regulated by the processing rate. Under certain conditions, such as heavy precipitation (two + inches), a discharge from Outfall 002 may still occur.

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

On September 27, 2010, the IDNR EcoCAT web-based tool was used and indicated that there were endangered/threatened species (Loggerhead Shrike (*Lanius ludovicianus*)) present in the vicinity of the discharge. IDNR evaluated the submittal and determined that impacts to the protected resources are unlikely. IDNR terminated the consultation request on September 27, 2010.

**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 changing the discharge location to provide sufficient dilution to meet water quality standards in the receiving stream. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

**Antidegradation Assessment  
The American Coal Company  
Galatia Mine  
NPDES Permit No. IL0061727  
Saline and Hamilton Counties  
November 26, 2001 (Updated July 21, 2011)**

The subject facility proposes an addition to the Outfall 004 (sedimentation pond) effluent. A sanitary waste component is to be added from site showers and bathrooms. The volume of flow added due to this change is small (0.015 cfs) and this addition may not always result in a discharge of effluent from the sedimentation pond. An unnamed tributary of the Middle Fork Saline River is the receiving water.

The Middle Fork Saline River (Waterbody Segment ATF-05) is not listed on the draft 2010 Illinois Integrated Water Quality Report and Section 303(d) List as impaired. Aquatic life use is fully supported.

The unnamed tributary is not rated, but the Middle Fork Saline River is rated as a "C" stream under the Agency's Biological Stream Characterization (BSC) program.

The Illinois Natural History Survey does not list the Middle Fork Saline River as a biologically significant stream nor does it indicate that any threatened or endangered species of aquatic life are resident according to the 1992 publication *Biologically Significant Illinois Streams*.

The parameters for which nondegradation issues arise at this facility are BOD, ammonia and nutrients. The increased loading of BOD should not impact aquatic life in the unnamed tributary. The new discharge will be required to meet BOD and TSS effluent standards established by the IPCB. These standards are applied consistently on a state-wide basis and have been proven to be protective of dissolved oxygen water quality standards in receiving waters. The additional loading of BOD to the unnamed tributary is not expected to cause depletion of dissolved oxygen or cause any other environmental problem. BOD will degrade as the effluent mixes with the existing water in the sedimentation pond. Nutrients and ammonia will also be significantly diluted. The new plant should cause no discernable change to the quality of the unnamed tributary.

The need for the new outfall is based on continuation of mining at this site. An economic reason is therefore present justifying the new discharge.

The impaired status of the Middle Fork Saline River at this location is based on habitat problems. The thermal impairment noted is likely due to channel straightening and vegetation removal, making the stream subject to thermal fluctuations stemming from too much direct sunlight. Additionally, the altered habitat in the stream is not conducive to healthy aquatic life communities. The addition of a sanitary wastestream should not alter the status of the stream. This discharge will not affect the thermal characteristics of the stream since these are exhibited during low flows. Likewise, the new mine discharge will have nothing to do with altered habitat.

This evaluation was conducted to satisfy the Illinois Pollution Control Board regulation for Nondegradation found at 35 Ill. Adm. Code 302.105. Under policies in place at this time, waters will be allowed to receive new or increased discharges with the following provisions: the water quality standards are met, there is an economic or social need for the discharge, best degree of treatment is attained, and, no ecological alteration of the receiving stream is likely to occur. In the case of the proposed American Coal Company – Galatia Mine discharge, all these conditions are met. The proposed discharger is therefore not in violation of the Board's Nondegradation regulation.

These recommendations reflect a water quality standards perspective only and should not be construed as being indicative of all factors that have to be taken into consideration by the permit writer.

NPDES Permit No. IL0061727

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

Renewed and Modified NPDES Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

Facility Name and Address:

The American Coal Company  
P.O. Box 727  
Harrisburg, IL 62946

The American Coal Company  
Galatia Mine  
1 mile east of Galatia, Illinois  
(Saline and Hamilton Counties)

Discharge Number and Classification:

Receiving waters

001, 004 Alkaline Mine Drainage

Unnamed tributary to Middle Fork Saline River

002ES Acid Mine Drainage

Black's Creek

003 Alkaline Mine Drainage

Middle Fork Saline River

005 Alkaline Mine Drainage

Unnamed tributary to Long Branch Creek

A02 Sanitary Wastewater

Pond 002 (Outfall 002)

A04 Sanitary Wastewater

Pond 004 (Outfall 004)

A05 Sanitary Wastewater

Pond 005 (Outfall 005)

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

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

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

REM:LDC:jkb/5867c/06-21-11

NPDES Coal Mine Permit  
 NPDES Permit No. IL0061727  
 Effluent Limitations and Monitoring

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

Outfalls\*: 001, 004 (Alkaline Mine Drainage)

Discharge Condition	Parameters										
	Total Suspended Solids (mg/l) ***		Iron (total) (mg/l) ***		pH** (S.U.) ***	Alkalinity/ Acidity ***	Sulfate (mg/l) ***	Chloride (mg/l) ***	Hardness ***	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum							
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1434	500	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1434	500	Monitor only	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1434	500	Monitor only	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1434	500	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 5.21 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. 12 for the discharges from Outfalls 001 and 004 and unnamed tributary to Middle Fork Saline 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. IL0061727  
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\*: 002ES (Acid 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. 15	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	2000	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	3500	See Special Condition No. 13	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	3500	See Special Condition No. 13	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.0-9.0	Alk.>Acid	3500	See Special Condition No. 13	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(b), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 1-year, 24-hour precipitation event, but 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 1-year, 24-hour precipitation event for this area is considered to be 5.21 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). The 10-year, 24-hour precipitation event for this area is considered to be 5.21 inches.
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. At such time that receiving stream flow subsides, monitoring requirements and permit limitations shall revert to Discharge Condition No. 1

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

\*\*\* There shall be a minimum of nine (9) samples collected during the quarter when the pond is discharging. Of these 9 samples, a minimum of one sample each month shall be taken during either Discharge Condition I or IV 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 Outfall 002 and Black's 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. IL0061727  
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. 15	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	3500	See Special Condition No. 13	4.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	3500	See Special Condition No. 13	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	3500	See Special Condition No. 13	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.0-9.0	Alk.>Acid	3500	See Special Condition No. 13	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 5.21 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, 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 003 and Middle Fork Saline 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. IL0061727  
 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\*: 005 (Alkaline Mine Drainage)

Discharge Condition	Parameters										
	Total Suspended Solids (mg/l) ***		Iron (total) (mg/l) ***		pH** (S.U.) ***	Alkalinity/ Acidity ***	Sulfate (mg/l) ***	Chloride (mg/l) ***	Hardness ***	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum							
I	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	833	500	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	833	500	Monitor only	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	833	500	Monitor only	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	833	500	Monitor only	Measure When Sampling	-

- I Dry weather discharge (base flow or mine pumpage) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 5.21 inches.
- III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

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

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

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

\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 12 for the discharges from Outfall 005 and unnamed tributary to Long Branch 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. IL0061727  
 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\*: A02 (Sanitary Wastewater)

Parameters									
Total Suspended Solids **				CBOD <sub>5</sub> **				pH (S.U.) **	Flow (MGD)
Load Limits (lbs/day)		Concentration Limits (mg/l)		Load Limits (lbs/day)		Concentration Limits (mg/l)			
30 day average	daily maximum	30 day average	daily maximum	30 day average	daily maximum	30 day average	daily maximum		
4.5	9.0	30	60	3.8	7.6	25	50	6.0-9.0	Measure When Sampling

\* Sample only when Outfall A02 is discharging.

\*\* A minimum of three (3) samples per month 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 Outfall A02. No more than one (1) sample shall be collected during any individual monitoring event.

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\*: A04, A05 (Sanitary Wastewater)

Parameters									
Total Suspended Solids **				CBOD <sub>5</sub> **				pH (S.U.) **	Flow (MGD)
Load Limits (lbs/day)		Concentration Limits (mg/l)		Load Limits (lbs/day)		Concentration Limits (mg/l)			
30 day average	daily maximum	30 day average	daily maximum	30 day average	daily maximum	30 day average	daily maximum		
2.5	5.0	30	60	2.1	4.2	25	50	6.0-9.0	Measure When Sampling

\* Sample only when Outfalls A04 and A05 is discharging.

\*\* A minimum of three (3) samples per month 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 Outfall A04 and A05. No more than one (1) sample shall be collected during any individual monitoring event.

NPDES Coal Mine Permit  
 NPDES Permit No. IL0061727  
 Effluent Limitations and Monitoring

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

Outfalls\*: 001, 004 (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	1434	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	1434	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	1434	500	Monitor only	Measure When Sampling	-
IV	6.5-9.0	1434	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 5.21 inches.
- III In accordance with 35 Ill. Adm. Code 406.109(c), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For reclamation area discharges, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

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

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

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

\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. (COND. NO.) for the discharges from Outfalls 001 and 004 and unnamed tributary to Middle Fork Saline 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. IL0061727  
 Effluent Limitations and Monitoring

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

Outfall\*: 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	2000	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	2000	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	2000	500	Monitor only	Measure When Sampling	-
IV	6.5-9.0	2000	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 5.21 inches.
- III In accordance with 35 Ill. Adm. Code 406.109(c), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For reclamation area discharges, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

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

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

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

\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. (COND. NO.) for the discharges from Outfall 002 and Black's 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. IL0061727  
Effluent Limitations and Monitoring

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

Outfall\*: 005 (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	833	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	833	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	833	500	Monitor only	Measure When Sampling	-
IV	6.5-9.0	833	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 5.21 inches.
- III In accordance with 35 Ill. Adm. Code 406.109(c), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For reclamation area discharges, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

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

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

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

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\* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. (COND. NO.) for the discharges from Outfall 005 and unnamed tributary to Long Branch 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. IL0061727  
 Effluent Limitations and Monitoring

Upon completion of Special Condition No. 10 and approval from the Agency, the effluent of the following discharge shall be monitored and limited at all times as follows:

Outfalls: 001, 002, 004, 005 (Stormwater Discharge)

<b>Parameters</b>	
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. IL0061727

Construction Authorization No. 7070-01

C.A. Date: August 1, 2011

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

The surface facilities of an underground coal mine with support and satellite facilities consisting of an aggregate permitted area of 1330.8 acres. The mine and support facilities are located in Sections 4, 7, 11, 14, 15, 17, 18 and 19, Township 8 South, Range 6 East; Section 24, Township 8 South, Range 5 East; Sections 23 and 24, Township 7 South, Range 5 East; and Section 29, Township 7 South, Range 6 East, 3<sup>rd</sup> P.M., Saline County, and Section 13, Township 7 South, Range 5 East, 3<sup>rd</sup> P.M., Hamilton County, Illinois.

The main portal and office complex at this facility includes the coal preparation plant, shafts, slope, various support buildings, gasoline and diesel fuel storage tanks, refuse disposal areas, drainage ditches, water filter station, fresh water supply borehole to the underground mine workings, sedimentation ponds and washhouse facilities.

Surface drainage control at the main portal facility is provided by three sedimentation ponds with discharges designated as Outfalls 001, 002ES and 003. Pond 001, classified as alkaline mine drainage, collects runoff from the mine shaft, slope and storage areas. Pond 002, which is also used as the make-up water source for the preparation plant and classified as acid mine drainage, collects runoff from the coarse refuse disposal and preparation plant area. A 5,500-gallon sodium hydroxide tank may be located to treat potential acid water conditions at Pond 002 as described in IEPA Log No. 1067-97. Pond 003 identified as a chloride holding pond and classified as alkaline mine drainage, receives pumpage from the underground mining operation that has elevated chloride concentrations.

Discharges from Outfall 001 report to an unnamed tributary to Middle Fork Saline River while discharges from Outfall 003 report directly to Middle Fork Saline River. As discussed in IEPA Log No. 8481-10, discharges from Pond 002 will be conveyed via pipeline to a confluence with the Outfall 003 discharge pipeline to Middle Fork Saline River. The combined discharges will be monitored and reported as Outfall 003. In the event of a significant precipitation event of magnitude approximately equal to a 100-year storm, the Pond 002 emergency spillway may discharge through Outfall 002ES to Black's Creek.

The surface facilities have been revised as described in IEPA Log No. 8394-00 to include a covered overland conveyer and two waterlines.

As described and depicted in IEPA Log Nos. 7207-11 and 7247-11 refuse disposal area embankment will be raised from the current approved elevation of 535.0 feet to a crest elevation of approximately 600 feet msl. The side slopes of this vertical expansion will be developed at 2H:1V. This proposed modification will allow for the disposal of additional coarse and fine coal refuse material. Abandonment of this refuse disposal area will consist of treating the disposed refuse with agricultural lime and covering with four (4) feet of soil cover material and revegetating.

The sewage treatment facility, with discharge designated as Outfall A02 is an in-ground system consisting of a collection system, bar screens, surge chamber, aeration chamber and dual clarifiers as described in IEPA Log No. 2312-96. The design PE (Population Equivalent) for this treatment system, based on BOD<sub>5</sub> loading is 176 with a design average flow of 18,000 GPD. The sludge shall be hauled by a licensed sewage sludge hauler and disposed in an approved landfill. The discharge from Outfall A02 is tributary to Outfall 002 and is only required to be sampled at such times that Outfall 002 is discharging.

As described and depicted in IEPA Log Nos. 7094-01 and 7094-01-A (OMM Permit No. 352), an area consisting of 139.0 acres located in Sections 10, 13, 14 and 15, Township 8 South, Range 5 East, 3<sup>rd</sup> P.M., Saline County, Illinois. This area, also identified as the Millennium Portal includes drainage control structures (ditches) and sedimentation pond, topsoil and subsoil stockpiles, electrical substations, storage yards and buildings, access roads, slope portal, main shaft, intake and return shafts, and various other appurtenances as identified in the referenced submittal. Surface drainage control for the Millennium Portal is provided by a sedimentation pond with discharge designated as Outfall 004 as proposed in IEPA Log Nos. 8232-00-C and 8232-00-D. Discharges from Outfall 004, classified as alkaline mine drainage, report to an unnamed tributary to the Middle Fork Saline River. A portion of the area described herein was previously approved under State Construction and Operating Permit No. 2000-MC-8295 which is entirely replaced by this permit.

The mining operations plan at the Millennium Portal is being modified as described and depicted in IEPA Log No. 2121-06 (OMM Permit No. 352, IPR No. 6) for the construction of an access road and non-discharging fresh water holding pond. This non-discharging fresh water pond is proposed as a back-up supply for the main water supply to the underground operations. This proposed basin may be operated as a gravity flow system in the event of a pump failure or power outage at the main supply.

The surface facilities have been revised as described in IEPA Log No. 7302-01 to include a coal conveyer, sizer and stacker tube for coal handling purposes.



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The sewage treatment facility, with discharge designated as Outfall A04, consists of a bar screen, surge chamber, sludge holding tank, extended aeration tank, clarification chamber and clear well as described in IEPA Log No. 7094-01-A and is identical to the treatment plant described for Outfall A05. The design PE (Population Equivalent) for this treatment system, based on CBOD<sub>5</sub> loading is 120 with a design daily average flow (DAF) of 10,000 GPD. Sludge handling shall be as previously described for the treatment system with discharge designated as Outfall A02. The discharge from Outfall A04 is tributary to Outfall 004 and is only required to be sampled as such times that Outfall 004 is discharging.

Pursuant to information contained in IEPA Log No. 7512-01, a disinfection exemption (IEPA Log Nos. 7524-01 and 7524-01-A) has been granted for the discharges from Outfall A04.

An underground support facility area originally consisting of 80 acres (OMM Permit No. 255), which was later reduced to 36.5 acres due to unaffected area being released from SMCRA bond and subsequently released from the NPDES permit, located in Section 29, Township 7 South, Range 6 East, 3<sup>rd</sup> P.M., Saline County, Illinois. This area includes a portal for personnel and equipment transport, ventilation shaft, office, shop, warehouse, portable water tank, fuel and lube storage tanks, rock dust bin and soil stockpiles and boreholes to supply power, communication, rock dust and concrete to the underground workings. The referenced area and appurtenances are described in IEPA Log Nos. 7109-91, 7109-91-C and 5175-93.

The surface drainage control for this area consists of one (1) sedimentation pond with discharge designated as Outfall 005. Discharges from Outfall 005 are classified as alkaline mine drainage and report to an unnamed tributary to Long Branch Creek.

The sewage treatment facility, with discharge designated as Outfall A05, consists of a bar screen, surge chamber, sludge chamber, sludge holding tank, extended aeration tank, clarification chamber and clear well as described in IEPA Log Nos. 0347-98 and 0347-98-A. The design PE (Population Equivalent) for this treatment system, based on CBOD<sub>5</sub> loading is 120 with a design daily average flow (DAF) of 10,000 GPD. Sludge handling shall be as previously described for the treatment system with discharge designated as Outfall A02. The discharge from Outfall A05 is tributary to Outfall 005 and is only required to be sampled at such time that Outfall 005 is discharging.

Pursuant to information contained in IEPA Log No. 0428-98 a disinfection exemption has been granted for the discharges from Outfall A05.

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

Outfall Number	Latitude			Longitude			Receiving Waters
	DEG	MIN	SEC	DEG	MIN	SEC	
001	37°	49'	59"	88°	35'	03"	Unnamed tributary to Middle Fork Saline River
002ES	37°	49'	06"	88°	35'	45"	Black's Creek
003	37°	48'	45"	88°	35'	46"	Middle Fork Saline River
004	37°	49'	39"	88°	38'	28"	Unnamed tributary to Middle Fork Saline River
005	37°	53'	11"	88°	33'	45"	Unnamed tributary to Long Branch Creek
A02	37°	49'	16"	88°	35'	14"	Pond 002
A04	37°	50'	09"	88°	38'	17"	Pond 004
A05	37°	53'	10"	88°	33'	45"	Pond 005

A refuse disposal area as described in IEPA Log Nos. 1121-97, 1121-97-A and 1121-97-B consisting of 472 acres (OMM Permit No. 306) located in Sections 17, 19 and 20, Township 8 South, Range 6 East, 3<sup>rd</sup> P.M., Saline County, Illinois.

Approximately 166 acres, located in the southeast portion of this area is designated as a future borrow area as depicted on the Operations Map submitted under IEPA Log No. 1121-97-A. No construction or excavation is permitted in this proposed borrow area until such time that plans are submitted and approved by the Agency.

Surface drainage control for this area consists of a drainage ditch around the perimeter of the refuse pile that will report to Pond 002. Water collecting within the refuse impoundment will be recirculated to the preparation plant closed slurry circuit system.

The following projects previously approved under Supplemental Construction Authorization No. 4197-94-4 are hereby incorporated into this permit.

As described in IEPA Log No. 9158-99 (OMM Permit No. 2, IPR No. 50), a second coal stacking tube will be constructed and a coal stockpile developed. All drainage from the coal stockpile area will report to existing Sedimentation Pond No. 2

As described and depicted in IEPA Log No. 6241-02 (OMM Permit No. 352, IPR No. 1), the surface facilities are revised to enlarge the mine water holding pond, construct freshwater tank, install 6-inch freshwater borehole, 2-inch potable water borehole and 2-inch borehole to supply fuel and lubricant to the underground operations.

The addition of a non-contiguous area as described in IEPA Log Nos. 4185-04 and 4185-04-A (OMM Permit No. 2, IBR No. 40 and IPR No. 58) consisting of 19.6 acres located in Sections 7, 8, 16, 17 and 18, Township 8 South, Range 6 East, Saline County. This additional area consists of corridors which will be utilized for the placement of buried 10-inch pipelines for slurry conveyance to various boreholes for underground injection of slurry (fine coal refuse) into abandoned portions of the underground mine workings and the pumpage of recovered water from the injection operation.

Water will be withdrawn from recovery wells and pumped back to the preparation plant for recirculation through the coal processing circuit to prevent increased hydrostatic or hydraulic pressure head increases in the abandoned underground mine workings. No sedimentation basins are proposed to be constructed for the slurry pipeline corridor and injection borehole sites. Alternate drainage control will be provided by the use of silt fence, straw bale dikes and re-vegetation. Runoff from the corridor areas will be monitored in accordance with stormwater monitoring requirements.

The addition of a non-contiguous area as described in IEPA Log No. 2345-06 (OMM Permit No. 2, IBR No. 48) consisting of 18.8 acres located in Sections 4, 5 and 8, Township 8 South, Range 6 East, Saline County, to be used for a corridor within which will be located a buried slurry discharge pipeline to boreholes into the abandoned portions of the underground mine workings for the injections of slurry (fine coal refuse). Decant water from the slurry injection process will be withdrawn from recovery wells and pumped back to the preparation plant for recirculation through the coal processing circuit. Alternate drainage control will be provided along this pipeline corridor by silt fence, straw bale dikes, graveled areas and vegetation. Runoff from this area will be monitored in accordance with stormwater monitoring requirements.

As proposed and described in IEPA Log No. 8368-10 (OMM Permit No. 257, IPR No. 3), the surface facilities of this area are revised to include an underground slurry injection borehole. This additional injection borehole will supplement the underground slurry injection facilities described under IEPA Log Nos. 4185-04, 4185-04-A and 2345-06.

The mining operations plan is being modified as described and depicted in IEPA Log No. 3330-05 (OMM Permit No. 2, IPR No. 62) to add a clean coal stockpile located adjacent to the preparation plant facilities.

Reclamation of the West Refuse Disposal Area shall be modified as described and depicted in IEPA Log No. 2077-06 to include a compacted coarse refuse cover (cap) over the disposal area prior to final soil cover for establishment of vegetation.

The mining operations plan is being modified as described and depicted in IEPA Log No. 2120-06 (OMM Permit No. 2, IPR No. 65) to construct a clean coal reclaim system for the coal preparation plant process.

The groundwater monitoring plan is modified as described in IEPA Log No. 0159-08 (OMM Permit No. 306, IPR No. 6) to delete Monitoring Well Nos. MW-4A, MW-6, MW-7 and MW-8 due to these wells no longer being accessible as a result of refuse disposal in the East Refuse Disposal Area. These wells will be replaced with Monitoring Well Nos. MW-4B, MW-6A, MW-7A and MW-8A. These replacement wells will be located on natural undisturbed ground approximately 50 feet outside the alignment of the original wells.

An additional area consisting of 207 acres as described and depicted in IEPA Log No. 9333-09, 9333-09-B, 9333-09-D, 9333-09-F and 9333-09-I (IDNR/OMM Permit No. 401 area) identified as the Bunkhouse Refuse Disposal Facility and located in Sections 17 and 18, Township 8 South, Range 6 East, Saline County, Illinois.

Operations within this area will consist of refuse disposal, topsoil and subsoil stockpiles, offsite drainage diversion channel, drainage control structures (ditches) and basins designated as Sediment Pond A and Sediment Pond B. Runoff from disturbed areas will be directed to the sediment basins from which water will initially be pumped to the existing slurry impoundment and later to the new slurry impoundment proposed to be located within this OMM Permit No. 401 area. All water accumulated in the slurry impoundments will be returned to the coal preparation plant processing circuit.

A compacted clay liner will be constructed beneath the refuse disposal area as well and within Sediment Basins A and B and the ditches conveying runoff from the refuse area to the basins as described in IEPA Log Nos. 9333-09-B. Construction of the compacted clay liner is subject to the requirements of Condition No. 13.

Groundwater monitoring for the Bunkhouse Refuse Disposal Facility shall include Monitoring Well Nos. GW-9, GW-10, GW-11, GW-12, GW-13, GW-14, GW-15 and GW-16 located as depicted in IEPA Log No. 9333-09-I.

As proposed in IEPA Log No. 9367-09 (OMM Permit No. 2, IPR No. 78), the final reclamation cover shall consist of 36 inches of non-toxic, non-combustible material. Should this reduced cover result in inadequate vegetative cover and/or inadequate hydrologic balance protection, an additional 12 inches of cover material will be required.

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

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

1. If any statement or representation is found to be incorrect, this permit may be revoked and the permittee thereupon waives all rights thereunder.
2. The issuance of this permit (a) shall not be considered as in any manner affecting the title of the premises upon which the mine or mine refuse area is to be located; (b) does not release the permittee from any liability for damage to person or property caused by or resulting from the installation, maintenance or operation of the proposed facilities; (c) does not take into consideration the structural stability of any units or parts of the project; and (d) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or with applicable local laws, regulations or ordinances.
3. Final plans, specifications, application and supporting documents as submitted by the person indicated on Page 1 as approved shall constitute part of this permit and are identified in the records of the Illinois Environmental Protection Agency.
4. There shall be no deviations from the approved plans and specifications unless revised plans, specifications and application shall first have been submitted to the Illinois Environmental Protection Agency and a supplemental permit issued.
5. The permit holder shall notify the Environmental Protection Agency (217/782-3637) immediately of an emergency at the mine or mine refuse area which causes or threatens to cause a sudden discharge of contaminants into the waters of Illinois and shall immediately undertake necessary corrective measures as required by 35 Ill. Adm. Code 405.111. (217/782-3637 for calls between the hours of 5:00 p.m. to 8:30 a.m. and on weekends.)
6. The termination of an NPDES discharge monitoring point or cessation of monitoring of an NPDES discharge is not authorized by this Agency until the permittee submits adequate justification to show what alternate treatment is provided or that untreated drainage will meet applicable effluent and water quality standards.
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 permitted 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.

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10. A general plan for the nature and disposition of all liquids used to drill boreholes shall be filed with this Agency prior to any such operation. This plan should be filed at such time that the operator becomes aware of the need to drill unless the plan of operation was contained in a previously approved application. After settling, recirculation water which meets the requirements of 35 Ill. Adm. Code 406.106 and 406.202, may be discharged. The use of additives in the recirculation water which require treatment other than settling to comply with the Act will require a revised permit.
11. Any of the following shall be a violation of the provisions required under 35 Ill. Adm. Code 406.202:
- a. It is demonstrated that an adverse effect on the environment in and around the receiving stream has occurred or is likely to occur.
  - b. It is demonstrated that the discharge has adversely affected or is likely to adversely affect any public water supply.
  - c. The Agency determines that the permittee is not utilizing Good Mining Practices in accordance with 35 Ill. Adm. Code 406.204 which are fully described in detail in Sections 406.205, 406.206, 406.207 and 406.208 in order to minimize the discharge of total dissolved solids, chloride, sulfate, iron and manganese. To the extent practical, such Good Mining Practices shall be implemented to:
    - i. Stop or minimize water from coming into contact with disturbed areas through the use of diversions and/or runoff controls (Section 406.205).
    - ii. Retention and control within the site of waters exposed to disturbed materials utilizing erosion controls, sedimentation controls, water reuse or recirculation, minimization of exposure to disturbed materials, etc. (Section 406.206).
    - iii. Control and treatment of waters discharged from the site by regulation of flow of discharges and/or routing of discharges to more suitable discharge locations (Section 406.207).
    - iv. 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. Groundwater monitoring requirements for Well Nos. GW-1, GW-2, GW-3, GW-4B, GW-5, GW-6A, GW-7A, GW-8A, GW-9, GW-10, GW-11, GW-12, GW-13, GW-14, GW-15 and GW-16 are as follows:
- a. Unless previously completed, ambient background monitoring shall be performed for all referenced wells. 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	Water Elevation
Copper	Selenium	
Cyanide	Silver	
  - b. Following the ambient monitoring as required under 12(a) above, routine monitoring shall continue on a quarterly basis as follows:
    - i. Monitoring Well Nos. GW-4B, GW-5, GW-6A, GW-7A, GW-8A, GW-9, GW-10, GW-11, GW-12, GW-13, GW-14, GW-15 and GW-16 shall continue to be monitored quarterly for the contaminants identified in 12(a) above.

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- ii. Monitoring Well Nos. GW-1, GW-2 and GW-3 shall be monitored quarterly as required by IDNR/OMM for the following list of constituents:

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

- 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 12(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 Nos. 12(a) and 12(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

- 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:

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

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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.

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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13. The four (4) foot compacted clay liner to be constructed beneath the refuse disposal area as well as within Sedimentation Basins A and B shall be subject to the following specifications and procedures as detailed in IEPA Log No. 9333-09-B.
  - 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. Clay materials will be physically altered as necessary to obtain optimum moisture content for construction purposes. Materials exceeding optimum moisture content will be disked and allowed to air dry until moisture content is within effective moisture range. If necessary to achieve optimum moisture content, dry soils will be wetted by water spray from a water truck.
  - c. Soils used for liner construction shall be placed in lifts of 6 to 8 inch loose thickness. The lift thickness will be maintained using elevation staking with field checking with laser assistance. Aerial survey and/or GPS may also be utilized.
  - d. Compaction and permeability testing shall be performed throughout the construction process of the four (4) foot liner beneath the refuse disposal area, the two (2) foot compacted clay liner constructed as part of the final cover of the refuse disposal area and within both Sedimentation Basins A and B.
  - e. Compaction, permeability, moisture content and density testing shall be performed on a minimum frequency of two (2) tests per acre per soil lift.

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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

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

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

Period	Received by IEPA
January, February, March	April 15
April, May, June	July 15
July, August, September	October 15
October, November, December	January 15

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

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

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

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

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

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



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

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

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

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

**Special Condition No. 12:** Sediment Pond Operation and Maintenance (Outfalls 001, 004 and 005):

- a. For discharges resulting from precipitation events, in addition to the alternate effluent (Discharge Condition Nos. II and III) monitoring requirements, as indicated on the applicable effluent pages of this Permit, discharges from Outfalls 001, 004 and 005 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 Middle Fork Saline River which receives discharges from Outfalls 001 and 004, and the unnamed tributary to Long Branch Creek which receives discharges from Outfall 005..
  - i. All sampling and monitoring required under 12(b)(ii) and (iii) below shall be performed during a discharge and monitoring event from the associated outfall.
  - ii. The unnamed tributary to Middle Fork Saline River and the unnamed tributary to Long Branch 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 tributary to Middle Fork Saline River and the unnamed tributary to Long Branch Creek shall be monitored and reported annually for Discharge Rate, Chloride, Sulfate and Hardness upstream of the associated outfall.

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

- a. No discharge is allowed from Outfall Nos. 002ES and 003 during "low flow" or "no flow" conditions in the receiving stream, unless such discharge meets the water quality standards of 35 Ill. Adm. Code 302.

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.

The permittee shall determine the effluent limitation for chloride and/or the maximum effluent flow rate allowable to maintain water quality in the receiving stream. The following equations shall be used to make such determinations:

$$C_E = [C_{DS} (0.5 Q_{US} + Q_E) - (0.5 C_{US} Q_{US})] / Q_E \quad \text{When } Q_{US} / Q_E < 3$$

$$C_E = [C_{DS} (0.25 Q_{US} + Q_E) - (0.25 C_{US} Q_{US})] / Q_E \quad \text{When } Q_{US} / Q_E > 3$$

Where:

- $C_E$  = Allowable effluent concentration (mg./l.)  
 $Q_E$  = Effluent flow rate (cfs) for Outfalls 002ES and/or 003  
 $Q_{US}$  = Upstream flow rate (cfs)  
 $C_{US}$  = Upstream concentration (mg./l.)  
 $C_{DS}$  = Allowable downstream concentration = 500 mg./l. chloride

The permittee shall determine the maximum effluent flow rate and/or the maximum effluent concentration by measuring  $Q_{US}$  and analyzing the receiving waters upstream of the discharge. Neither the maximum calculated effluent flow rate nor the maximum effluent concentration of 2000 mg/l for Outfall 002ES and/or 13,000 mg/l for Outfall 003 shall be exceeded. On a separate DMR form, the permittee shall report  $Q_{US}$ ,  $C_{US}$ ,  $Q_E$  and  $C_E$  with supporting calculations for each parameter producing maximum and minimum values for  $Q_E$  and  $C_E$ .

At times of stormwater discharge and/or monitoring of Outfall 002ES and 003, in addition to the alternate effluent (Discharge Condition Nos. II and III) monitoring requirements, as indicated on the applicable effluent pages of this Permit, discharges from Outfall Nos. 002ES and 003 shall be monitored and reported for Discharge Rate, Sulfate, Chloride and Hardness.

- b. The following sampling and monitoring requirements are applicable to flow in Black's Creek and Middle Fork Saline River which receives the discharges from Outfalls 002ES and 003.
- i. All sampling and monitoring required under 13(b)(ii) and (iii) below shall be performed during a discharge and monitoring event from the associated outfall.
  - ii. Black's Creek and Middle Fork Saline 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. Black's Creek and Middle Fork Saline River shall be monitored and reported annually for Discharge Rate, Sulfate, Chloride and Hardness upstream of the associated outfall.

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**Special Condition No. 14:** Data collected in accordance with Special Condition Nos. 12 and 13 above will be utilized to evaluate the appropriateness of the effluent limits established in this Permit. Should the Agency's evaluation of this data indicate revised effluent limits are warranted; this permit may be reopened and modified to incorporate more appropriate effluent limitations. This data will also be used for determination of effluent limitations at the time of permit renewal.

**Special Condition No. 15:** Mercury shall be monitored quarterly until a minimum of ten (10) samples have been collected. Samples shall be collected and tested in accordance with USEPA 1631E using the option at Section 11.1.1.2 requiring the heating of samples at 50°C for 6 hours in a BrCl solution in closed vessels. This test method has a Method Detection Limit (MDL) of 0.001 ug/l. The results of such testing must be 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.