NPDES Permit No. IL0079626
Notice No. 5984c

Public Notice Beginning Date: **January 11, 2013**

Public Notice Ending Date: **February 11, 2013**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft New 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:

Southern Illinois Power Cooperative
11543 Lake of Egypt Road
Marion, Illinois 62959

Name and Address of Facility:

Southern Illinois Power Cooperative
Southern Delta Mine
Approx. 12 miles east of Marion, Illinois
(Williamson and Saline 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 proposes a new carbon (slurry) recovery operation (SIC 1221). Mine operations result in the discharge of alkaline mine drainage.

Application is made for one (1) new discharge which is located in Saline County, Illinois. The following information identifies the discharge points, receiving streams and stream classifications:

Outfall	Receiving Stream	Latitude (North)	Longitude (West)	Stream Classification
015	Delta Creek	37º45'16"	88º41'27"	General Use

The stream segment IL-ATGJ-01 of Delta Creek receiving the discharge from Outfall 015 is not on the draft 2010 303(d) list of impaired waters. This stream segment of Delta Creek has the same designation in the draft 2012 303(d) list; this is, it is fully supporting aquatic life uses.

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

Outfall: 015

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	1203	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1203	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1203	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1203	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

I Dry weather discharge (base flow or mine pumpage) from the outfall.

II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24 hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 5.21 inches.

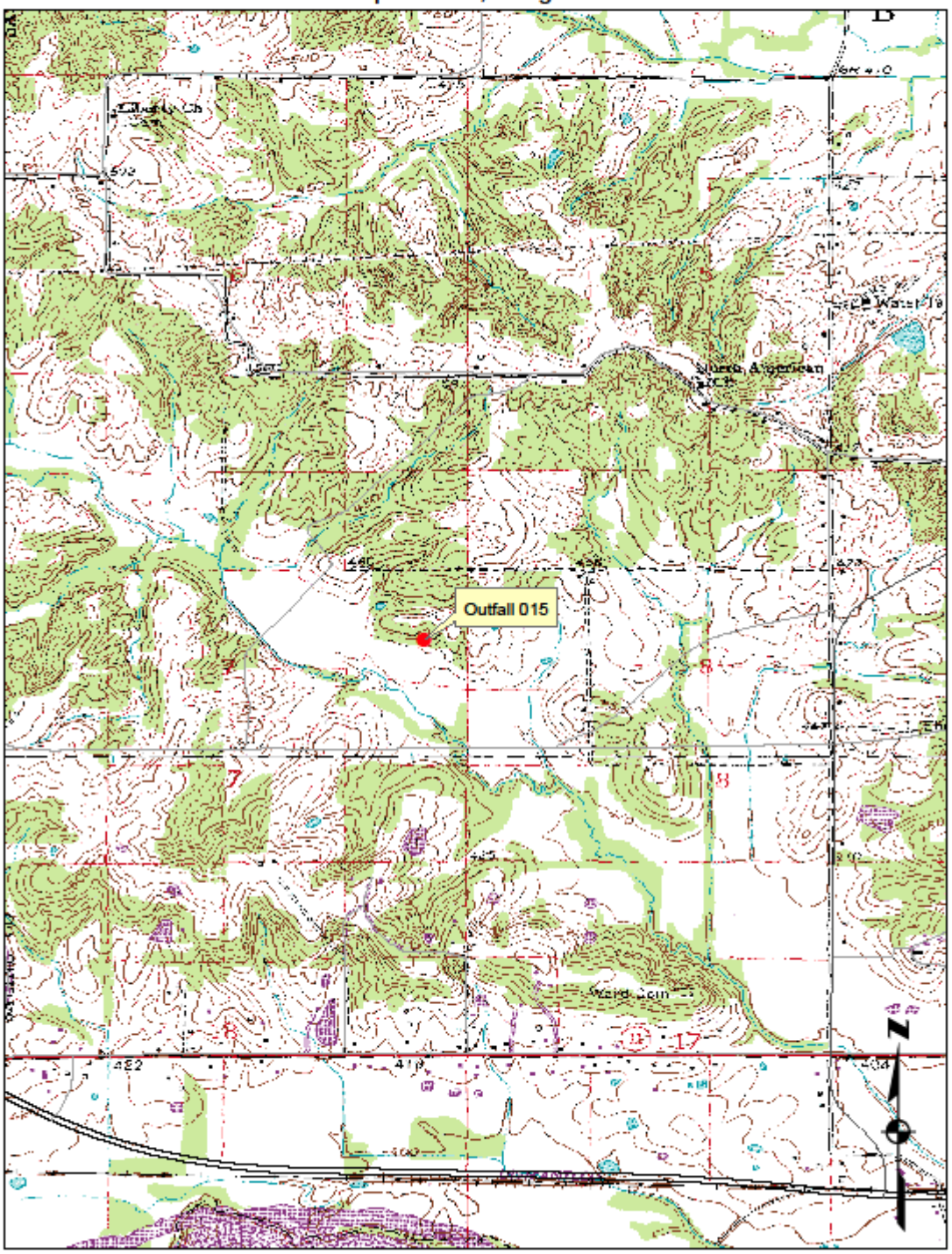
III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those 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 015, being approved after July 27, 1987, are subject to a 30-day average effluent limitation for Iron of 3.0 mg/l. Daily maximum effluent concentrations are calculated as twice the 30-day average.
(5) Hardness monitoring is required to determine the appropriateness of the sulfate permit limit.

To assist you in identifying the location of the discharges, please refer to the attached map. The permit area for this facility is located in Sections 1 and 2, Township 9 South, Range 4 East, 3rd P.M., Williamson County, Illinois and Sections 5, 6 and 7, Township 9 South, Range 5 East, 3rd P.M., Saline County, Illinois.

Southern Illinois Power Cooperative - Southern Delta Mine
NPDES No. IL0079626
Saline County
Township 9 South, Range 5 East



Antidegradation Assessment
Southern Illinois Power Cooperative – Southern Delta Mine
NPDES Permit No. IL0079626
Williamson and Saline Counties

SIPC has applied for an NPDES permit for a carbon recovery operation at the Southern Delta Mine. The Southern Delta Mine carbon recovery operation will reprocess coal refuse (slurry) generated by coal processing from a previous surface mining operation that was deposited into an approved slurry impoundment within the proposed permit areas. The re-processed slurry material is intended for use at the Southern Illinois Power Cooperative, Lake of Egypt electric generating facility.

The total area covered by the mining permit is 436 acres of which 161.1 will be affected.

The Southern Delta operation also intends to include beneficial use of coal combustion by-products (CCB) to enhance reclamation of the slurry impoundment. Approximately fifty-five (55) percent of the material currently stored in the slurry impoundment will be removed as marketable carbon material. This material will be replaced with an approximate equal amount of CCB. The replacement will help ensure against future acid production from the slurry impoundment by neutralizing any potentially acidic material released in the slurry and fill the void caused by removing slurry from the impoundment. This will allow the operator to restore elevations of the post-processed impounded refuse material similar to the elevations of the pre-processed material at currently exist within the impoundment. In addition, the fluidized bed boiler ash will set up similar to concrete after it is placed in the impoundment. This will help seal the impoundment and prohibit leaching of the material into the groundwater system. Final grade of the CCB will be maintained four feet below permanent pool elevation in the impoundment.

The current projected life of the mine is approximately 10 years with total production estimated at one million tons. The Southern Delta operation intends to utilize one existing sedimentation pond for treatment of storm water from disturbed and undisturbed areas and use existing surface drainage control structures and roads that remain from the previous mining operation at this site.

The existing Fresh Water Impoundment was designed to accept both the surface drainage from unaffected areas diverted through the North and South Diversion Ditches, as well as the discharge from the Slurry Pond. The total drainage area is 3.29 square miles.

The existing impoundment is located downstream of the mine operations area which allows the impoundment to collect all runoff from the mine operations for treatment before discharging. Water to operate the re-processing plant will be pumped from the sediment impoundment and slurry generated by the re-processing plant will be deposited back into the existing slurry impoundment. Water discharging from the slurry impoundment will drain to the existing sediment impoundment. The design of the sedimentation pond controls the release of storm water in a measured fashion, using drainage discharge structures designed to retain the flow sufficiently to allow settlement of the solids and not be a part of the discharged water.

After removal of the marketable carbon material, it will be replaced with an approximate equal amount of coal combustion by-products (CCB). Without the use of CCB as backfill material, the area would become a deep-water permanent impoundment and the opportunity to restore the wetlands and provide function of the wetlands would no longer exist.

The information in this antidegradation assessment came from the original application and all subsequent information, including the "Assessment of Alternatives for Minimal Environmental Degradation and Economic Benefit Analysis, Southern Delta Mine".

Identification and Characterization of the Affected Water Body.

The subject facility proposes to discharge to Delta Creek at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. Delta Creek is classified as a General Use Water. Delta Creek 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. Delta Creek, Waterbody Segment, ATGJ-01, is not listed on the draft 2010 Illinois Integrated Water Quality Report and Section 303(d) List since it has not been assessed. Delta Creek is not subject to enhanced dissolved oxygen standards.

The applicant indicated that the watershed size is 3.29 square miles for Outfall 015 at the discharge point on Delta Creek. According to the Illinois State Water Survey, Delta Creek in the area of the proposed mine discharges is likely to be a 7Q1.1 zero flow stream. In this region of Illinois, 7Q1.1 zero flow streams are streams with a watershed area of 5 square miles or less. These streams will exhibit no flow for at least a continuous seven day period nine out of ten years. Aquatic life communities in these headwater streams are tolerant of the effects of drying. Depending on the rainfall received before biological surveys, either a very limited aquatic life community, or no community at all would be found. Given this flow regime, no additional biological characterization is required.

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

The mine outfall will be classified as alkaline mine drainage. Suspended solids will be treated in the sedimentation ponds. Effluent discharged from these ponds will contain suspended solids loadings that are similar to those occurring from the land in its present use. Sulfates and chlorides may undergo an increase in loading to the receiving streams as a result of the mining activities. Based on estimated effluent concentrations for this mine, chloride and sulfate will meet water quality standards in the discharged effluent. Additionally, since the sedimentation ponds will only discharge as a result of a storm event, the receiving stream will have flow that will dilute the effluent whenever it is discharged. However, no allowed mixing was considered; limits for parameters regulated in the permit are set at the water quality standard.

Fate and Effect of Parameters Proposed for Increased Loading.

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

Purpose and Social & Economic Benefits of the Proposed Activity.

The proposed Southern Delta Mine will benefit the community through economic and employment opportunities by the operation of a carbon recovery operation. According to information given in a document dated January 4, 2012 by the applicant entitled Assessment of Alternatives for Minimal Environmental Degradation and Economic Benefit Analysis, Southern Delta Mine, operating the carbon recovery mine will provide jobs for 30 local residents with an annual payroll of approximately $2.0 million. In addition, other local businesses would also benefit from the wealth created by the mine. Local and state taxes will increase as a result of the mine. Saline County currently has an unemployment rate of 9.6%. In 2010, 16.6 % of Saline County residents were living below the poverty level.

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

Stormwater control at surface coal mines is a matter of applying established best management practices. The final step in these practices involves sedimentation ponds to catch all runoff from the mine, settle out solids, provide a venue for pH adjustment if necessary and allow a controlled discharge of the effluent to the receiving stream. Prior steps involve the minimization of exposed earth and coal refuse to the elements. Alternatives to this system of prevention and treatment of pollutants have been evaluated by the mine company in a document submitted on May 10, 2010 entitled Assessment of Alternatives for Minimal Environmental Degradation and Economic Benefit Analysis, Southern Delta Mine and are summarized as follows:

No discharge. Given the climate of Williamson and Saline Counties, the mine company concludes that evaporation is not a viable option for disposal of the stormwater runoff mine effluent. Some stormwater from the sedimentation ponds will be re-used at the mine for dust suppression and as a supplemental source for coal washing. Containing and re-using all of the effluent is not viable given that there are no users for this water available that would want water after storm events.

Underground Injection. An underground injection system would pump the storm water in to an underground cavity for permanent sequestering. Storm water runoff from a rain event would require a large cavity for deposition. Underground cavities from previous mining operations of sufficient size to accommodate the runoff potentially exist in this area; however these mines have been closed for approximately 20 years and in almost all cases are filled with water which would have to be managed in some manner so that additional water could be sequestered. This type of system is impractical and unacceptable for storm water treatment.

Discharge to POTW or Other Sources. The nearest POTW is Harrisburg, approximately 7 miles away and the only entity in the area that could possibly receive the stormwater. POTWs are not designed to treat wastewaters containing dissolved substances such as chloride or sulfate. Capacity at the Harrisburg POTW would be insufficient to handle stormwater flows from the mine. This option is not feasible.

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

Filtration. Filtration may take various forms and includes gravity settlement and filter membrane media, including filter medium barrier, vortex separation, and vortex treatment. Filtration will not remove dissolved substances, which are the primary potential pollutants present in sedimentation pond effluent.

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

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

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

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

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

Manganese Treatment. The treatment technology investigated was the addition of phosphate compounds, ion exchange water softeners, oxidizing filters, aeration (pressure type) followed by filtration, and chemical oxidation followed by filtration. Manganese treatment was not determined to be a reasonable alternative to storm water treatment due to a number of factors; including the management of chemicals, health and safety concerns of workers handling the materials, volume of waste sludge, lack of infrastructure for managing the volume of sludge, and technologically not feasible considering the variable concentration of manganese in the mine discharge.

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

On January 11, 2012, the IDNR EcoCAT web-based tool was used and indicated that there were no endangered/threatened species present in the vicinity of the discharge. The IDNR EcoCAT web-based tool terminated the consultation.

Agency Conclusion.

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

NPDES Permit No. IL0079626

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

New NPDES Permit

Expiration Date:

Issue Date:
Effective Date:

Name and Address of Permittee:

Southern Illinois Power Cooperative
11543 Lake of Egypt Road
Marion, Illinois 62959

Facility Name and Address:

Southern Illinois Power Cooperative
Southern Delta Mine
Approx. 12 miles east of Marion, Illinois
(Williamson and Saline Counties

Discharge Number and Classification:

015 Alkaline Mine Drainage

Receiving waters

Delta Creek

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

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

Larry D. Crislip, Permit Manager
Mine Pollution Control Program
Bureau of Water

LDC:IW:cs/5984c/1-2-13

NPDES Coal Mine Permit

NPDES Permit No. IL0079626

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*: 015 (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	1203	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1203	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1203	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.0	6.0	6.5-9.0	Alk.>Acid	1203	500	1.0	Monitor only	Monitor only	Measure When Sampling	-

I Dry weather discharge (base flow or mine pumpage) from the outfall.

II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 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. 13 for the discharges from Outfall 015 and Delta 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. IL0079626

Effluent Limitations and Monitoring

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

Outfall*: 015 (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	1203	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	1203	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	1203	500	Monitor only	Measure When Sampling	-
IV	6.5-9.0	1203	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. 13 for the discharges from Outfall 015 and Delta 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. IL0079626

Effluent Limitations and Monitoring

Upon completion of Special Condition No. 11 and approval from the Agency, the effluent of the following discharge shall be monitored and limited at all times as follows:

Outfalls: 015 (Stormwater Discharge)

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

Stormwater discharge monitoring is subject to the following reporting requirements:

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

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. IL0079626

Construction Authorization No. 7147-11

C.A. Date: January 3, 2013

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

Surface facilities in support of new carbon (slurry) recovery operation containing a total of 436.0 acres, as described and depicted in IEPA Log No 7147-11-L and located in Sections 1 and 12, Township 9 South, Range 4 East, Williamson County and Sections 5, 6 and 7, Township 9 South, Range 5 East, Saline County, 3rd P.M., Illinois. The permitted area at this facility contains fine coal (slurry) from a previous surface mining operation, topsoil and subsoil stockpiles, coal storage areas, drainage control structures, sedimentation ponds and haulage and access roads.

Surface drainage control is provided by one (1) sedimentation pond with discharge designated as Outfall 015, classified as alkaline mine drainage.

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

Outfall Number	Latitude			Longitude			Receiving Waters
	DEG	MIN	SEC	DEG	MIN	SEC	
015	37º	45'	16"	88º	41'	27"	Delta Creek

Fine coal refuse generated by processing refuse from two existing slurry impoundments at the mine is approved for disposal in Slurry Cells #1 and #2 as depicted in IEPA Log No. 7147-11-L. A low permeability liner or an alternative HDPE geomembrane liner will be constructed on the bottom, sides and top of the disposal cells. Preparation of the bottom, sides and top of these disposal areas shall consist of the construction of a four (4) foot compacted clay liner with a demonstrated permeability of $1X\ 10^{-7}$cm/sec or less, subject to and in accordance with the specifications and testing requirements of Condition No. 12. As an alternative a HDPE geomembrane may be installed on the bottom, sides and top of the disposal areas. The construction of a HDPE geomembrane liner shall be subject to and in accordance with the specifications and testing requirements of Condition No. 13.

Final reclamation of the refuse disposal cells will include the introduction of water above the rooting media which will be placed to cover the cap liner installed on the top of the disposal cells. The rooting media will be to support wetland plant growth for final reclamation of the area as a wetland as described in IEPA Log No. 7174-11-L.

Groundwater monitoring at this facility consists of monitoring well Nos. SDW-1 SDW-2, SDW-3, SDW-4 and C273AP as depicted in IEPA Log No. 7147-11-L. Monitoring of wells at this facility shall be performed in accordance with Condition 14.

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 ($Al_2(SO_4)_3$), hydrated lime ($Ca(OH)_2$), soda ash (Na_2CO_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.

10. A general plan for the nature and disposition of all liquids used to drill boreholes shall be filed with this Agency prior to any such operation. This plan should be filed at such time that the operator becomes aware of the need to drill unless the plan of operation was contained in a previously approved application.

11. Any of the following shall be a violation of the provisions required under 35 Ill. Adm. Code 406.202:

    a. It is demonstrated that an adverse effect on the environment in and around the receiving stream has occurred or is likely to occur.

    b. It is demonstrated that the discharge has adversely affected or is likely to adversely affect any public water supply.

    c. The Agency determines that the permittee is not utilizing Good Mining Practices in accordance with 35 Ill. Adm. Code 406.204 which are fully described in detail in Sections 406.205, 406.206, 406.207 and 406.208 in order to minimize the discharge of total dissolved solids, chloride, sulfate, iron and manganese. To the extent practical, such Good Mining Practices shall be implemented to:

        i. Stop or minimize water from coming into contact with disturbed areas through the use of diversions and/or runoff controls (Section 406.205).

        ii. Retention and control within the site of waters exposed to disturbed materials utilizing erosion controls, sedimentation controls, water reuse or recirculation, minimization of exposure to disturbed materials, etc. (Section 406.206).

        iii. Control and treatment of waters discharged from the site by regulation of flow of discharges and/or routing of discharges to more suitable discharge locations (Section 406.207).

iv. Utilized unconventional practices to prevent the production or discharge of waters containing elevated contaminant concentrations such as diversion of groundwater prior to entry into a surface or underground mine, dewatering practices to remove clean water prior to contacting disturbed materials and/or any additional practices demonstrated to be effective in reducing contaminant levels in discharges (Section 406.208).

12. The compacted clay liner to be constructed for the bottom, sides and top of the coal refuse disposal areas shall be subject to the following specifications and procedures as detailed in IEPA Log No. 7147-11-L.

Construction Specifications

a. Foundation preparation for the bottom, sides and top of the disposal cells shall consist of the construction of a four (4) foot compacted clay soil with a demonstrated permeability of 1X 10^{-7}cm/sec or less, subject to and in accordance with the specifications and testing requirements of Condition No. 12.

b. All clay soil to be used to construct the disposal area shall be free of grass, vines, vegetation, and rock or stones greater than 4 inches in diameter.

c. After scarifying, four (4) inches of clay soil shall be placed and compacted to 95% maximum standard laboratory dry density as determined by ASTM Test Method D-698. Moisture content of clay soils shall range within two (2) percent below and three (3) percent above optimum moisture content. Compaction shall be achieved using a sheepsfoot roller to compact each soil lift. Compaction shall be determined by ASTM Test Method D-5195 (Nuclear Density).

d. Each successive lift of clay soil shall be placed to a six (6) to eight (8) inch loose thickness.

e. Inter-lift surfaces shall be adequately scarified to ensure inter-lift bonding.

f. Construction shall be performed to ensure consistent achievement of density, moisture content, and hydraulic conductivity for each successive lift.

g. The placement of frozen material or the placement of material on frozen ground shall be prohibited.

h. Contemporaneous placement or protective covering shall be provided to prevent drying, desiccation and/or freezing where necessary.

i. Construction shall proceed only during favorable climatic conditions.

j. Liner construction shall be completed in a manner which reduces void spaces within the clay soil material.

k. All construction stakes shall be removed during construction, and all test holes (Shelby tube samples) are to be backfilled with bentonite.

l. The compacted clay liner shall be constructed in a manner to achieve a uniform barrier with the required permeability of 1 x 10^{-7} cm./sec., or less.

m. In the event that acceptable compaction results are not achieved, the compacted clay lift shall be re-processed or removed and replaced. If moisture content is more than 2 percent below or 3 percent above optimum, the failing material shall be wetted or dried to a moisture content within specification and re-compacted. If the dry density is below specification, the failing material shall be re-compacted until a passing test is achieved.

n. In the event of a failing conductivity test, the liner material shall be removed or re-compacted and retested until a passing result is obtained. The limits of necessary reconstruction shall be determined by additional sampling and testing within the failed region, thereby isolating the failing area of work.

Testing Specifications

o. Prior to initiating liner construction, borrow soils shall be identified, qualified, and verified. At a minimum, a representative sample of each soil type identified within the borrow area is to be collected and analyzed for gradation, compaction, and hydraulic conductivity characteristics.

p. Samples collected from the borrow area shall be evaluated in accordance with ASTM D422, D4318 and D2487 to ensure classification criteria are met.

q. Samples collected from the borrow areas shall be compacted to 95% standard Proctor density at or near optimum moisture content. The hydraulic conductivity of the re-compacted samples shall be determined in accordance with ASTM D5084 procedures. The results of this testing shall be used to establish the minimum dry density of the clay soil necessary to achieve a hydraulic conductivity of $1X10^{-7}$ cm/sec, or less, for the bottom, sides and top of the disposal cells.

r. Samples collected from borrow areas shall be tested in accordance with ASTM D698 to determine maximum dry density and optimum moisture content of the materials.

s. Moisture and density testing by nuclear methods (ASTM D9195) shall be conducted at a rate of at least one test per 7,500 cubic yards placed. Testing locations shall be random, and shall not be known to the earthwork contractor prior to lift placement.

t. To insure the accuracy and reproducibility of the nuclear testing, all nuclear density gauges shall be certified to calibration. Soil compaction tests shall be double-checked with independent test methods. A drive cylinder test and laboratory moisture content determination shall be conducted and compared to gauge readings. These independent checks shall be made at the outset of construction and on a bi-weekly basis (e.g., every ten working days) thereafter.

u. Samples for hydraulic conductivity verification shall be retrieved from the clay liner and tested in accordance with ASTM D5084 procedures. Samples shall be retrieved using three-inch Shelby tubes. Samples shall be conducted at a rate of at least one (1) sample per 7,500 cu. yds. placed. Sampling locations shall be random, and shall not be known to the earthwork contractor prior to when the sample is taken.

v. A construction report shall be completed and signed by a P.E. certifying that the constructed liners meet the specifications noted in items (a) through (u) above. The report shall include the results of each ASTM D422, D4318, D2487 and ASTM D698 test of the liner material and identify the location where each sample was taken.

w. Survey checks shall be conducted at a maximum spacing of 100 ft. centers, and at 100 ft. intervals along each line where a break in slope occurs, to verify liner thickness. To verify liner thickness, the survey checks shall be taken before and after liner construction.

13. As an alternative to installing the compacted clay liner in the disposal area, an HDPE geomembrane may be installed on the bottom, sides and top of the disposal area to the specifications and procedures detailed in IEPA Log No. 7147-11-L. The geomembrane shall be subject to the following specifications and procedures; and comply with the following ASTM Standards.

Construction Specifications

a. The subgrade surface on which the HDPE geomembrane is to be installed shall be firm, smooth without abrupt elevation changes, and free of voids cracks, ice, standing water, vegetation, sharp rocks, and any other foreign matter which could contact the geomembrane.

b. Immediately prior to installation, the subgrade shall be rolled to eliminate any wheel ruts, footprints, or other irregularities. Any protrusions extending more than one-half inch from the surface shall be removed, crushed or pushed into the surface with a smooth-drum roller.

c. The geomembrane shall be installed using equipment and techniques recommended by the manufacturer. This work shall include anchoring, seaming, cutting, sealing around penetrations or structures, field testing, and damage repairs, if applicable.

d. The geomembrane shall be covered with soil, sand, gravel or crushed stone which shall be free of large stones, sticks or any other materials which could cause puncture or tearing. The minimum cover thickness shall be one (1) foot.

e. The cover material shall be gently placed from as low a height as possible. The cover material shall be placed over the liner using construction equipment that minimizes stress on the geomembrane.

f. Backfill in the anchor trench shall be of the same quality as the cover material. The anchor trench backfill shall be compacted by hand tamping or by the use of a small walk behind compactor. The backfill shall be placed in 6 to 8 inch loose lifts, each lift being compacted as stated above.

g. To ensure the successful reclamation of the wetlands that will be restored post mining, the geomembrane placed on the top of the disposal area will be covered with a minimum of one foot of clay root medium.

HDPE Geomembrane Specifications

h. The bottom and sides of the disposal area shall have a liner with a nominal thickness of 60 mils. The top of the disposal area will be capped with a liner with a nominal thickness of 40 mils.

i. The HDPE geomembrane manufacturer shall provide QA/QC certifications for each shipment of HDPE geomembrane. The certifications shall be signed by a responsible party employed by the HDPE geomembrane manufacturer and shall include:

    1. Manufacturer's quality control program.

    2. Quality control certificates for the geomembranes.

    3. Quality control certificates issued by the resin supplier.

    4. HDPE geomembrane lot and roll numbers supplied for the project with corresponding shipping information.

j. The permittee shall utilize and comply with the following ASTM procedures for the HDPE geomembrane QA/QC:

    1. ASTM D5199, "Standard Test Methods for Measuring the Nominal Thickness of Geosynthetics"

    2. ASTM D1505/D792, "Standard Test Method for Density of Plastics by the Density gradient Method" and "Standard Test methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement"

    3. ASTM D1238, "Standard Test Method for melt Flow Rates of Thermoplastics by Extrusion Plastometer"

    4. ASTM D6693, "Standard Test Method for Determining Tensile Properties of Nonreinforced Polyethylene and Nonreinforced Polypropylene Geomembranes:

    5. ASTM D1004, "Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting"

    6. ASTM D1204, "Standard Test Method of Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature"

    7. ASTM D4833, "Standard Test Method for Index Puncture Resistance of Geomembranes and Related products"

    8. ASTM D5397, "Standard Test Method for Evalaution of Stress Crack Resistance of Polyolefin Geomembranes Using Notched Constant Tensile Load Test"

    9. ASTM D1603, "Standard Test Method for Carbon Black content of Olefin Plastics"

10. ASTM D5596, “Standard Test Method for Microscopic Evaluation of the Dispersion of Carbon Black Polyolefin Geosynthetics”

11. ASTM D6392, “Standard Test Method for Determining the Integrity of Nonreinforced Geomembrane Seams Produced Using Thermo Fusion Methods

14. Groundwater monitoring requirements for Well Nos. SDW-1, SDW-2, SDW-3, SDW-4 and C273AP are as follows:

a. 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 Condition No. 14(a) above, routine monitoring shall continue on a quarterly basis as follows:

i. Monitoring Well Nos. SDW-1, SDW-2, SDW-3, SDW-4 and C273AP shall continue to be monitored quarterly for the contaminants identified in Condition No. 14(a) above.

c. Following completion of active mining and reclamation, post-mining monitoring of the above referenced wells shall consist of six (6) samples collected during a 12-month period (approximately bi-monthly) to determine post-mining concentrations. Post-mining monitoring shall include the list of constituents identified in Condition No. 14(a) above.

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

e. A statistically valid representation of background and/or post mining water quality required under Condition No. 14(a) and 14(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.

The results of the statistical representation of background and/or post-mining groundwater quality required herein shall be submitted to the Agency at the addresses indicated in Special Condition No. 3 of this permit within 90 days following completion of the background and/or post-mining monitoring.

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 ($\overline{X}_b$) 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.

$$\overline{X}_b = \frac{X_1 + X_2 + \ldots X_n}{n}$$

Where:

$\overline{X}_b$ = 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:

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

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

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

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

Where:

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

iv. If the values of any routine parameter for any monitoring well exceed the upper confidence limit for that parameter, the permittee shall conclude that a statistically significant change has occurred at that well.

v. When some of the background and/or post mining values are less than the Method Detection Limit (MDL), a value of one-half (1/2) the MDL shall be substituted for each value that is reported as less than the MDL. All other computations shall be calculated as given above.

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

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.

NPDES Permit No. IL0079626

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

Attn: Compliance Assurance Section

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

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: The Agency may revise or modify the Permit consistent with applicable laws, regulations or judicial orders.

Special Condition No. 7: If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

Special Condition No. 8: The permittee shall notify the Agency in writing by certified mail within thirty days of abandonment, cessation, or suspension of active mining for thirty days or more unless caused by a labor dispute. During cessation or suspension of active mining, whether caused by a labor dispute or not, the permittee shall provide whatever interim impoundment, drainage diversion, and wastewater treatment is necessary to avoid violations of the Act or Subtitle D.

Special Conditions

Special Condition No. 9: Plans must be submitted to and approved by this Agency prior to construction of a sedimentation pond. At such time as runoff water is collected in the sedimentation pond, a sample shall be collected and analyzed for the parameters designated as 1M-15M under Part 5-C of Form 2C and the effluent parameters designated herein with the results sent to this Agency. Should additional treatment be necessary to meet these standards, a Supplemental Permit must also be obtained. Discharge from a pond is not allowed unless applicable effluent and water quality standards are met.

Special Condition No. 10: The special reclamation area effluent standards of 35 Ill. Adm. Code 406.109 apply only on approval from the Agency. To obtain approval, a request form and supporting documentation shall be submitted 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. 11: 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. 12: Annual stormwater monitoring is required for all discharges not reporting to a sediment basin until Final SMCRA Bond is released and approval to cease such monitoring is obtained from the Agency.

A. Each discharge must be monitored for pH and settleable solids annually.

B. Analysis of samples must be submitted with second quarter Discharge Monitoring Reports. A map with discharge locations must be included in this submittal.

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

Special Condition No. 13: Sediment Pond Operation and Maintenance (Outfall 015):

a. For discharges resulting from precipitation events, in addition to the alternate effluent (Discharge Condition Nos. II and III) monitoring requirements, as indicated on the applicable effluent pages of this Permit, discharges from Outfall 15 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 Delta Creek which receive discharges from Outfall 015.

   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. Delta 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. Delta Creek shall be monitored and reported annually for Discharge Rate, Chloride, Sulfate and Hardness upstream of the associated outfall.

Special Condition No. 14: Data collected in accordance with Special Condition No. 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.

NPDES Permit No. IL0079626

Special Conditions

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 1.0 ng/l (nanograms/liter). The results of such testing must be reported in "ng/l" (nanograms/liter) and submitted with the quarterly Discharge Monitoring Reports (DMRs). The Permittee may submit a written request to the Agency to discontinue quarterly Mercury monitoring if the sampling results show no reasonable potential to exceed the Mercury water quality standard.