NPDES Permit No. IL0026913
Notice No. 5798c

Public Notice Beginning Date: **April 29, 2011**

Public Notice Ending Date: **May 30, 2011**

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:

RLF Pawnee Properties, L.L.C.
619 N. Cascade Avenue, Suite 200
Colorado Springs, CO 80903

Name and Address of Facility:

RLF Pawnee Properties, L.L.C.
Pawnee Mine
Hwy 104, Zenobia Road
Pawnee, IL 62558
4 miles east of Pawnee, Illinois
(Christian County)

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

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

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

The applicant operates an existing carbon recovery operation located on the site of a closed underground mine (SIC 1221). Mine operations result in the discharge of alkaline mine drainage, acid mine drainage and surface runoff from reclamation areas and stormwater discharges.

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

Permit is being transferred from USA Coal Gas LP to RLF Pawnee Properties, L.L.C.

Outfall 001 has been reclassified as acid mine drainage.

The total area of the facility has decreased to 525.19 acres located in the area previously referred to as the main processing area.

Ammonia limits have been added to Outfall 001 due to the use of anhydrous ammonia for pH neutralization and iron/manganese precipitation.

This facility has four (4) existing discharges which are located in Christian County, Illinois. The following information identifies the discharge points, receiving streams, and stream classifications:

Outfall	Receiving Stream	Latitude (North)	Longitude (West)	Stream Classification
001	Unnamed tributary of Sangchris Lake	39° 35' 00"	89° 31' 57"	General Use
016	Unnamed tributary of Sangchris Lake	39° 34' 38"	89° 31' 32"	General Use
017	Unnamed tributary of Sangchris Lake	39° 35' 10"	89° 30' 22"	General Use
018	Unnamed tributary of Sangchris Lake	39° 35' 25"	89° 31' 47"	General Use

The waterbody segment REB of Sangchris Lake receiving the flow from the unnamed tributaries into which Outfalls 001, 016, 017 and 018 discharges is on the draft 2010 303(d) list of impaired waters. The following parameters have been identified as the pollutants causing impairment:

Outfall	Potential Causes	Sources
001, 016, 017, 018	Mercury Total Suspended Solids, Aquatic Plants (Macrophytes) and Aquatic Algae	Atmospheric Deposition-Toxics, Source Unknown, Littoral/shore Area Modifications (non-riverine), Other Recreational Pollution Sources, Agriculture, Runoff from Forest/Grassland/Parkland

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

Outfall: 001

Discharge Condition	Parameters															
	Total Suspended Solids (mg/l) (3)		Iron (total) (mg/l) (3), (4)		Manganese (total) (mg/l)		pH (S.U.) (8)	Alkalinity/ Acidity	Sulfate (mg/l) (1)	Chloride (mg/l)	Hardness (5)	Mercury	Flow (MGD)	Settle-able Solids (2) (ml/l)	Ammonia (as N) (mgl) (6), (7) daily maximum		
	30 day average	daily maximum	30 day average	daily maximum	30 day average	daily maximum									Spring/ Fall	Summer	Winter
I	35	70	3.5	7.0	2.0	4.0	6.5-9.0	Alk.>Acid	1390	500	Monitor only	Monitor only	Measure When Sampling	-	2.5	2.6	2.1
II	-	-	3.5	7.0	-	-	6.0-9.0 ****	-	1390	500	Monitor only	-	Measure When Sampling	0.5	-	-	-
III	-	-	-	-	-	-	6.0-9.0 ****	-	1390	500	Monitor only	-	Measure When Sampling	0.5	-	-	-
IV	-	-	-	-	-	-	6.0-9.0 ****	-	1390	500	Monitor only	-	Measure When Sampling	-	-	-	-
V	35	70	3.5	7.0	2.0	4.0	6.5-9.0	Alk.>Acid	1390	500	Monitor only	Monitor only	Measure When Sampling	-	2.5	2.6	2.1

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

II In accordance with 35 Ill. Adm. Code 406.110(c)(1), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 2-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 2-year, 24-hour precipitation event for this area is considered to be 3.11 inches.

III In accordance with 35 Ill. Adm. Code 406.110(c)(2), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 2-year, 24-hour precipitation event, but less than or equal to 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 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-hour precipitation grant for this area is considered to be 4.65 inches.

V 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 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 001, being approved prior to July 27, 1987, are subject to a 30-day average effluent limitation for Iron of 3.5 mg/l. Daily maximum effluent concentrations are calculated as twice the 30-day average.
(5) Hardness monitoring is required to determine the appropriateness of the sulfate permit limitation.
(6) Ammonia water quality standards are determined in accordance with 35 Ill. Adm. Code 302.212(b) and 35 Ill. Adm. Code 355.
(7) Spring/Fall consists of March through May, and September through October, Summer consists of June through August, and Winter consists of November through February.
(8) The upper limit of pH shall be 10.0 S.U. for Discharge Conditions I and V for discharges from Outfall 001 that are unable to comply with the manganese limit at pH 9.0 S.U.

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

Outfall: 016, 018

Discharge Condition	Parameters												
	Total Suspended Solids (3) (mg/l)		Iron (total) (3) (4) (mg/l)		pH (3) (S.U.)	Alkalinity/ Acidity (3)	Sulfate (1) (mg/l)	Chloride (mg/l)	Mn (total) (mg/l)	Hardness (5)	Mercury	Flow (MGD)	Settleable Solids (2) (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1390	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1390	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1390	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1390	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(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-hours 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 2.59 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 4.65 inches.

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 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 Outfalls 016 and 018, being approved prior to July 27, 1987, are subject to a 30-day average effluent limitation for Iron of 3.5 mg/l. Daily maximum effluent concentrations are calculated as twice the 30-day average.
(5) Hardness monitoring is required to determine the appropriateness of the sulfate permit limitation.

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

Outfall: 017

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	3.5	7.0	6.5-9.0	Alk.>Acid	1390	500	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1390	500	Monitor only	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1390	500	Monitor only	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1390	500	Monitor only	Measure When Sampling	-

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

II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24 hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.65 inches.

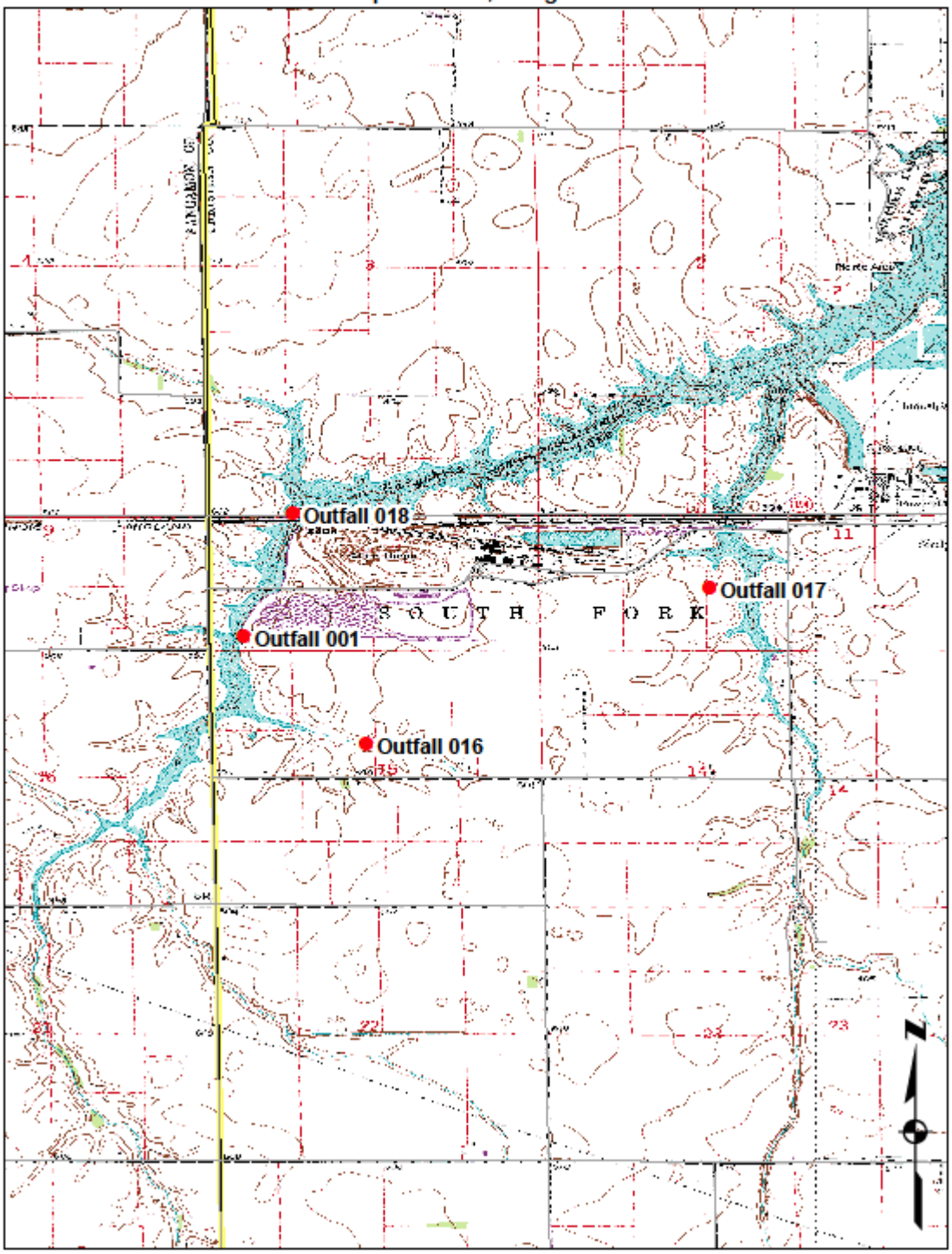
III In accordance with 35 Ill. Adm. Code 406.110(d), any discharge or increase in volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those 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 017, being approved prior to July 27, 1987, are subject to a 30-day average effluent limitation for Iron of 3.5 mg/l. Daily maximum effluent concentrations are calculated as twice the 30-day average.
(5) Hardness monitoring is required to determine the appropriateness of the sulfate permit limit.

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 10, 11, 14 and 15, Township 13 North, Range 4 West, 3rd P.M., Christian County, Illinois.

RLF Pawnee Properties, L.L.C. - Pawnee Mine
NPDES No. IL0026913
Christian County
Township 13 North, Range 4 West



NPDES Permit No. IL0026913

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:

RLF Pawnee Properties, L.L.C.
619 N. Cascade Avenue, Suite 200
Colorado Springs, CO 80903

Facility Name and Address:

RLF Pawnee Properties, L.L.C.
Pawnee Mine
4 miles east of Pawnee, Illinois
(Christian County)

Discharge Number and Classification:		Receiving waters
001, 016, 108	Acid Mine Drainage	Unnamed tributaries of Sangchris Lake
017	Alkaline Mine Drainage	Unnamed tributaries of Sangchris Lake

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:BWC:jkb/5798c/03-23-11

NPDES Coal Mine Permit

NPDES Permit No.IL0026913

Effluent Limitations and Monitoring

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

Outfall*: 001 (Acid Mine Drainage)

Discharge Condition	Parameters															
	Total Suspended Solids (mg/l) ***		Iron (total) (mg/l) ***		Manganese (total) (mg/l) ***		pH (S.U.) ***	Alkalinity/ Acidity ***	Sulfate (mg/l) ***	Chloride (mg/l) ***	Hardness ***	Mercury see Special Condition No.14	Flow (MGD)	Settle-able Solids (ml/l)	Ammonia (as N) (mg/l) *** daily maximum		
	30 day average	daily maximum	30 day average	daily maximum	30 day average	daily maximum									Spring/ Fall	Summer	Winter
I	35	70	3.5	7.0	2.0	4.0	6.5-9.0	Alk.>Acid	1390	500	Monitor only	Monitor only	Measure When Sampling	-	2.5	2.6	2.1
II	-	-	3.5	7.0	-	-	6.0-9.0 ****	-	1390	500	Monitor only	-	Measure When Sampling	0.5	-	-	-
III	-	-	-	-	-	-	6.0-9.0 ****	-	1390	500	Monitor only	-	Measure When Sampling	0.5	-	-	-
IV	-	-	-	-	-	-	6.0-9.0 ****	-	1390	500	Monitor only	-	Measure When Sampling	-	-	-	-
V	35	70	3.5	7.0	2.0	4.0	6.5-9.0	Alk.>Acid	1390	500	Monitor only	Monitor only	Measure When Sampling	-	2.5	2.6	2.1

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

II In accordance with 35 Ill. Adm. Code 406.110(c)(1), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 2-year, 24-hours 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 2-year, 24-hour precipitation event for this area is considered to be 3.11 inches.

III In accordance with 35 Ill. Adm. Code 406.110(c)(2), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 2-year, 24-hours 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).

IV 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 4.65 inches.

V Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For outfalls which have no allowed mixing, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

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

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

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

Spring/Fall consists of March through May, and September through October, Summer consists of June through August, and Winter consists of November through February.

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* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition 12 for the discharges from Outfall 001 and the unnamed tributary to Sangchris Lake 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.

**** The upper limit of pH shall be 10 S.U. for discharge conditions II, III and IV for discharges from Outfall 001 that are unable to comply with the manganese limit at pH 9 S.U

NPDES Coal Mine Permit

NPDES Permit No. IL0026913

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*: 016, 018 (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. 14	Flow (MGD)	Settleable Solids (ml/l)
	30 day average	daily maximum	30 day average	daily maximum									
I	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1390	500	1.0	Monitor only	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1390	500	-	Monitor only	-	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1390	500	-	Monitor only	-	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1390	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(c)(1), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 2-year, 24-hours 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 2-year, 24-hour precipitation event for this area is considered to be 2.59 inches.

III In accordance with 35 Ill. Adm. Code 406.110(c)(2), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 2-year, 24-hours 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).

IV 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 4.65 inches.

V 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 016 and 018 and the unnamed tributary to Sangchris Lake 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. IL0026913

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*: 017 (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	3.5	7.0	6.5-9.0	Alk.>Acid	1390	500	Monitor only	Measure When Sampling	-
II	-	-	-	-	6.0-9.0	-	1390	500	Monitor only	Measure When Sampling	0.5
III	-	-	-	-	6.0-9.0	-	1390	500	Monitor only	Measure When Sampling	-
IV	35	70	3.5	7.0	6.5-9.0	Alk.>Acid	1390	500	Monitor only	Measure When Sampling	-

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

II In accordance with 35 Ill. Adm. Code 406.110(a), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.106(b). The 10-year, 24-hour precipitation event for this area is considered to be 4.65 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 Outfall 017 and the unnamed tributary to Sangchris Lake 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. IL0026913

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*: 001, 016, 017, 018 (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	1390	500	Monitor only	Measure When Sampling	0.5
II	6.0-9.0	1390	500	Monitor only	Measure When Sampling	0.5
III	6.0-9.0	1390	500	Monitor only	Measure When Sampling	-
IV	6.5-9.0	1390	500	Monitor only	Measure When Sampling	0.5

I Dry weather discharge (base flow, if present) from the outfall.

II In accordance with 35 Ill. Adm. Code 406.109(b), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations. The 10-year, 24-hour precipitation event for this area is considered to be 4.65 inches.

III In accordance with 35 Ill. Adm. Code 406.109(c), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).

IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For reclamation area discharges, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

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

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

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

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* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 12 for the discharges from Outfalls 001, 016, 017 and 018 and the unnamed tributaries of Sangchris Lake 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. IL0026913

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, 016, 017, 108 (Stormwater Discharge)

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

Stormwater discharge monitoring is subject to the following reporting requirements:

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

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

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

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

** 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. IL0026913

Construction Authorization No. 4112-04

C.A. Date: March 24, 2011

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

The surface facilities of a closed underground mine which is now operating as a carbon recovery operation containing 525.19 acres (OMM Permit No. 405) as described and depicted in IEPA Log Nos. 4112-04, 2382-06 and 2519-06 located in Sections 10, 11, 14 and 15. Township 13 North, Range 4 West, 3rd P.M., Christian County. The total area cited herein includes modifications as discussed below.

In accordance with information provided in IEPA Log No. 0358-08, 0450-08, 9167-09 and 9169-09, OMM Permit No. 405 and a portion of OMM Permit No. 7 is transferred from USA Coal Gas, LP, Mine No. 10, to RLF Pawnee Properties, L.L.C., Pawnee Mine.

Facilities located at this site include a trommel, hopper, shredder hammer mill, screen and wash plant, a material yard containing a raw fine coal refuse stockpile and a processing waste stockpile, soil stockpiles, fine and coarse refuse disposal areas, access roads, buildings, drainage control and piping systems.

As described in IEPA Log Nos. 2382-06 and 2519-06 the surface facilities have been modified to install new processing equipment within an existing building and a new trommel to this building, as well as modifications to the access roads, earthen dam, berms and ditches, and a modification of the Slurry Area No. 2 embankment.

Surface drainage control at this facility consists of four (4) sedimentation ponds with discharges designated and located as indicated below:

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

Outfall Numbers	Latitude			Longitude			Receiving Waters
	DEG	MIN	SEC	DEG	MIN	SEC	
001	39°	35’	00”	89°	31’	57”	Unnamed tributary of Sangchris Lake
016	39°	34’	38”	89°	31’	32”	Unnamed tributary of Sangchris Lake
017	39°	35’	10”	89°	30’	22”	Unnamed tributary of Sangchris Lake
018	39°	35’	25”	89°	31’	47”	Unnamed tributary of Sangchris Lake

Outfalls 016 and 018 typically discharge to Basin and Outfall 001; however, these outfalls may discharge to the receiving streams indicated above during or as a result of significant precipitation events.

Water treatment plant lime sludge materials are approved for use as an amendment material on coarse refuse and fine refuse (slurry) as follows:

The following previous approvals are hereby incorporated into this NPDES Permit:

As previously approved under Subtitle D Permit No. 2010-MO-8278, water treatment plant lime sludge from the City of Springfield CWLP may be utilized for neutralization of potentially acidic coarse and fine (slurry) refuse areas as described in IEPA Log No. 8278-10. These materials may be staged or temporarily stockpiled on the concrete slabs of the old mine facilities adjacent to the Gob 1 area.

As proposed and described in IEPA Log No. 8021-10, water treatment plant lime sludge from the Village of Athens may be utilized as an amendment material on the coarse refuse and fine coal (slurry) disposal areas. Lime sludge may also be applied to the West Lake and the ditch connecting the north sump to the West Lake as identified in IEPA Log No. 8021-10.

As proposed and described in IEPA Log No. 8266-10, water treatment plant lime sludge from the City of Taylorville, the City of Gillespie, and the Curran Gardner municipal water treatment lagoons may be utilized as an amendment material on the coarse refuse and fine coal (slurry) disposal areas. Lime sludge from these municipal water treatment lagoons may be applied to other areas currently or previously permitted to receive municipal lime sludge.

Utilization of all water treatment lime sludge for coal refuse neutralization as described above is subject to requirements of Condition No. 12. Application rates for any combination of water treatment plant lime sludge shall not exceed 500 tons per acre on coarse refuse material or 150 tons per acre on fine coal refuse material.

The following previous approvals for coal combustion waste disposal and/or coal combustion by-product utilization are hereby incorporated into this NPDES Permit.

As previously proposed in IEPA Log Nos. 5539-03, 2364-06, 2382-06, 2519-06, and 9521-09, with notification being acknowledged by the Agency in correspondence dated July 29, 2010, coal combustion by-products (CCB) from a source identified as ADM – Decatur is being beneficially utilized in accordance with Section 3.135(a)(9)(c) of the Illinois Environmental Protection Act in coarse and fine (slurry) refuse disposal areas and in areas receiving acidic runoff from

unpermitted areas (i.e. Gob 1), as described in IEPA Log Nos. 5539-03, 2382-06, 2519-06, and 9521-09. Utilization of the ADM-Decatur (fly ash) CCB material was previously approved for coal waste (slurry) stabilization under Subtitle D Permit No. 2006-MW-2384.

As previously proposed in IEPA Log No. 8278-10 and approved under Subtitle D Permit No. 2010-MO-8278, coal combustion waste (gypsum) from the City of Springfield CWLP may be utilized for neutralization of potentially acidic coarse and fine (slurry) refuse areas as described in IEPA Log No. 8278-10.

In addition, processing waste from the carbon recovery operation will be disposed in coarse and fine (slurry) refuse disposal areas, Slurry 2 and Gob 2, as described in Log Nos. 2382-06 and 2519-06.

Coal combustion waste disposal is subject to the requirements of Condition 13.

As previously approved under Subtitle D Permit No. 2007-MD-4093, the use of anhydrous ammonia to neutralize pH and aid in the precipitation of iron and manganese in Basin 001 is also approved and hereby incorporated into this NPDES Permit. The addition of ammonia shall be minimized to meet the ammonia limitations of this NPDES Permit.

This Permit is being transferred from USA Coal Gas, LP, Mine No. 10, and issued in the name of RLF Pawnee Properties, L.L.C., Pawnee Mine pursuant information contained in IEPA Log Nos. 0358-08, 0450-08, 9167-09 and 9169-09.

In accordance with IEPA Log No. 2249-06 Monitoring Well MW-3 has been unintentionally destroyed and replaced by Well No. MW-3R. The current groundwater monitoring plan now consists of Well Nos. MW-2, MW-3R, MW-4, MW-5 and MW-6. Groundwater monitoring requirements are outlined in Condition No. 14.

This Construction Authorization supersedes and replaces Construction Authorization No. 9114-99 and State Permit Nos. 2004-MW-5576, 2006-MW-2384, 2007-MO-4093, and 2010-MO-8278 previously issued for the herein permitted facilities and activities.

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

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 by Log Nos. 5539-03, 4112-04, 2249-06, 2364-06, 2382-06, 2519-06, 0358-08, 0450-08, 9167-09, 9169-09, 9521-09, 8021-10, 8266-10 and 8278-10 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. 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. Annual analysis of the water treatment plant lime sludge and/or sewage treatment plant sludge shall be submitted to this Agency in accordance with Special Condition No. 3 of this NPDES Permit on or before December 31st of each year in which this material is utilized. Such annual analyses shall be performed utilizing test method ASTM D3987-85 and shall include the following constituents:

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

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

13. Coal combustion waste disposal requirements are as follows:

a. No coal combustion waste shall be disposed until approval is obtained from the Agency for each individual CCW source proposed for disposal. Application for disposal of individual CCW sources should be submitted at least 180 days before disposal is proposed to commence. It is noted that an NPDES permit modification may be required based on a review of the analysis which is required to be submitted with the application for disposal.

b. Quarterly analysis of a representative sample of each individual coal combustion waste disposed during that quarter will be required as follows:

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

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

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

Chloride	Fluoride	Sulfate
Cyanide		

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

Acidity	pH
Alkalilnity	Total Dissolved Solids
	Net Neutralization Potential

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

c. Quarterly CCW analyses shall be submitted to the Agency in accordance with Special Condition No. 3 of this NPDES permit.

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

e. The reporting schedule for CCW analyses shall coincide with the reporting schedule outlined in Special Condition No. 5 of this NPDES permit.

f. The quarterly analysis is required only for quarters during which CCW disposal occurs. For quarters during which no CCW disposal occurs, a written notification to the Agency indicating such is required.

g. Fugitive dust from the coal combustion waste material shall not leave the disposal area. Timely covering, incorporation and/or wetting shall be utilized as necessary to protect exposed surfaces from wind erosion. If during disposal operations, such procedures do not sufficiently control fugitive dust, disposal activities shall cease until such time that more favorable conditions exist of modified operation procedures are proposed and approved by this Agency.

h. Any proposed changes or modifications to the approved conditions, operating procedures waste source or source characteristics require notification and approval by the Agency prior to such changes or modifications being implemented.

14. Groundwater monitoring requirements for Well Nos. MW-2, MW-3R, MW-4, MW-5 and MW-6 are as follows:

a. Routine monitoring for the referenced wells shall be performed on an annual basis for the following list of constituents:

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

It is noted that Water Elevation for each well referenced above shall be monitored and reported on a quarterly basis.

b. 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 14(a) above.

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

d. A statistically valid representation of post mining water quality required under Condition No. 14(b) 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 $\overline{X}_b$ 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. IL0026913

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: If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

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

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

Special Conditions

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

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

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

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

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

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

Special Condition No. 12: Sediment Pond Operation and Maintenance (Outfalls 001, 016, 017 and 018):

a. For discharges resulting from precipitation events, in addition to the alternate effluent (Discharge Condition Nos. II, III and IV) monitoring requirements, as indicated on the applicable effluent pages of this Permit, discharges from Outfalls 001, 016, 017 and 018 shall be monitored and reported for Discharge Rate, Sulfate, Chloride and Hardness.

Special Condition No. 13: Data collected in accordance with Special Condition No. 12 above and data collected by the Agency from the sampling station referred to as AWQMN station EOD-01, Clear Creek, Sangchris Lake Dam, 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. 14: Mercury shall be monitored quarterly until a minimum of ten (10) samples have been collected. 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 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 if the sampling results show no reasonable potential to exceed the Mercury water quality standard.