

NPDES Permit No. IL0072656
Notice No. 6676c

Public Notice Beginning Date: **February 20, 2014**

Public Notice Ending Date: **March 24, 2014**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft Modified and Renewed 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:

Knight Hawk Coal, L.L.C.
500 Cutler-Trico Road
Percy, Illinois 62272

Name and Address of Facility:

Knight Hawk Coal, L.L.C.
Red Hawk Mine
4 miles north of Vergennes, Illinois
(Perry and Jackson Counties)

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

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

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

The applicant operates an existing surface coal mine (SIC 1221). Mine operations result in the discharge of alkaline mine drainage, surface runoff from reclamation areas and stormwater discharges.

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

Transfer monitoring and liability for discharges from Outfall 006 from Springfield Coal Company, LLC to Knight Hawk Coal, LLC

Addition of 60.0 acres to permit area for expansion of mining and mining related activities.

This facility has three (3) existing discharges which are located in Perry and Jackson Counties, Illinois. The following information identifies the discharge points, receiving streams, and stream classifications:

| <u>Outfall</u> | <u>Receiving Stream</u> | <u>Latitude (North)</u> | <u>Longitude (West)</u> |
|----------------|------------------------------------|-------------------------|-------------------------|
| 006 | Young's Creek | 37° 58' 01" | 89° 19' 28" |
| 007 | Walkers Creek | 37° 57' 1.3" | 89° 19' 09.1" |
| 008 | Unnamed tributary to Walkers Creek | 37° 56' 42.1" | 89° 18' 52.7" |

The stream segment NCE-02 of Young's Creek receiving the discharge from Outfall 006 is not on the 2012 303(d) list of impaired waters.

The stream segment NCC-01 of Walkers Creek receiving flow from Outfall 007 and the flow from the unnamed tributary into which Outfall 008 discharges is on the 2012 303(d) list of impaired waters. The following parameters have been identified as the pollutants causing impairment.

| <u>Outfall</u> | <u>Pollutant</u> |
|----------------|-----------------------------------------------------------------------|
| 007, 008 | Alteration in stream-side or littoral vegetative covers, Manganese |

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

Outfall: 006

| Discharge Condition | Parameters | | | | | | | | | | | | |
|---------------------|-----------------------------------|---------------|-----------------------------|---------------|---------------|------------------------|--------------------|-----------------|-------------------|--------------|--------------|-----------------------|------------------------------|
| | Total Suspended Solids (3) (mg/l) | | Iron (total) (3) (4) (mg/l) | | pH (3) (S.U.) | Alkalinity/Acidity (3) | Sulfate (1) (mg/l) | Chloride (mg/l) | Mn (total) (mg/l) | Hardness (5) | Mercury | Flow (MGD) | Settleable Solids (2) (ml/l) |
| | 30 day average | daily maximum | 30 day average | daily maximum | | | | | | | | | |
| I | 35 | 70 | 3.5 | 7.0 | 6.5-9.0 | Alk.>Acid | 2000 | 500 | 1.0 | Monitor only | Monitor only | Measure When Sampling | - |
| II | - | - | - | - | 6.0-9.0 | - | 2000 | 500 | - | Monitor only | - | Measure When Sampling | 0.5 |
| III | - | - | - | - | 6.0-9.0 | - | 2000 | 500 | - | Monitor only | - | Measure When Sampling | - |
| IV | 35 | 70 | 3.5 | 7.0 | 6.5-9.0 | Alk.>Acid | 2000 | 500 | 1.0 | Monitor only | Monitor only | Measure When Sampling | - |

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

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

Outfall: 007

| Discharge Condition | Parameters | | | | | | | | | | | | |
|---------------------|-----------------------------------|---------------|-----------------------------|---------------|---------------|------------------------|--------------------|-----------------|-------------------|--------------|--------------|-----------------------|------------------------------|
| | Total Suspended Solids (3) (mg/l) | | Iron (total) (3) (4) (mg/l) | | pH (3) (S.U.) | Alkalinity/Acidity (3) | Sulfate (1) (mg/l) | Chloride (mg/l) | Mn (total) (mg/l) | Hardness (5) | Mercury | Flow (MGD) | Settleable Solids (2) (ml/l) |
| | 30 day average | daily maximum | 30 day average | daily maximum | | | | | | | | | |
| I | 35 | 70 | 3.0 | 6.0 | 6.5-9.0 | Alk.>Acid | 2000 | 500 | 1.0 | Monitor only | Monitor only | Measure When Sampling | - |
| II | - | - | - | - | 6.0-9.0 | - | 2000 | 500 | - | Monitor only | - | Measure When Sampling | 0.5 |
| III | - | - | - | - | 6.0-9.0 | - | 2000 | 500 | - | Monitor only | - | Measure When Sampling | - |
| IV | 35 | 70 | 3.0 | 6.0 | 6.5-9.0 | Alk.>Acid | 2000 | 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 007, being approved after July 27, 1987, are subject to a 30-day average effluent limitation for Iron of 3.0 mg/l. Daily maximum effluent concentrations are calculated as twice the 30-day average.
 - (5) Hardness monitoring is required to determine the appropriateness of the sulfate permit limit.

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

Outfall: 008

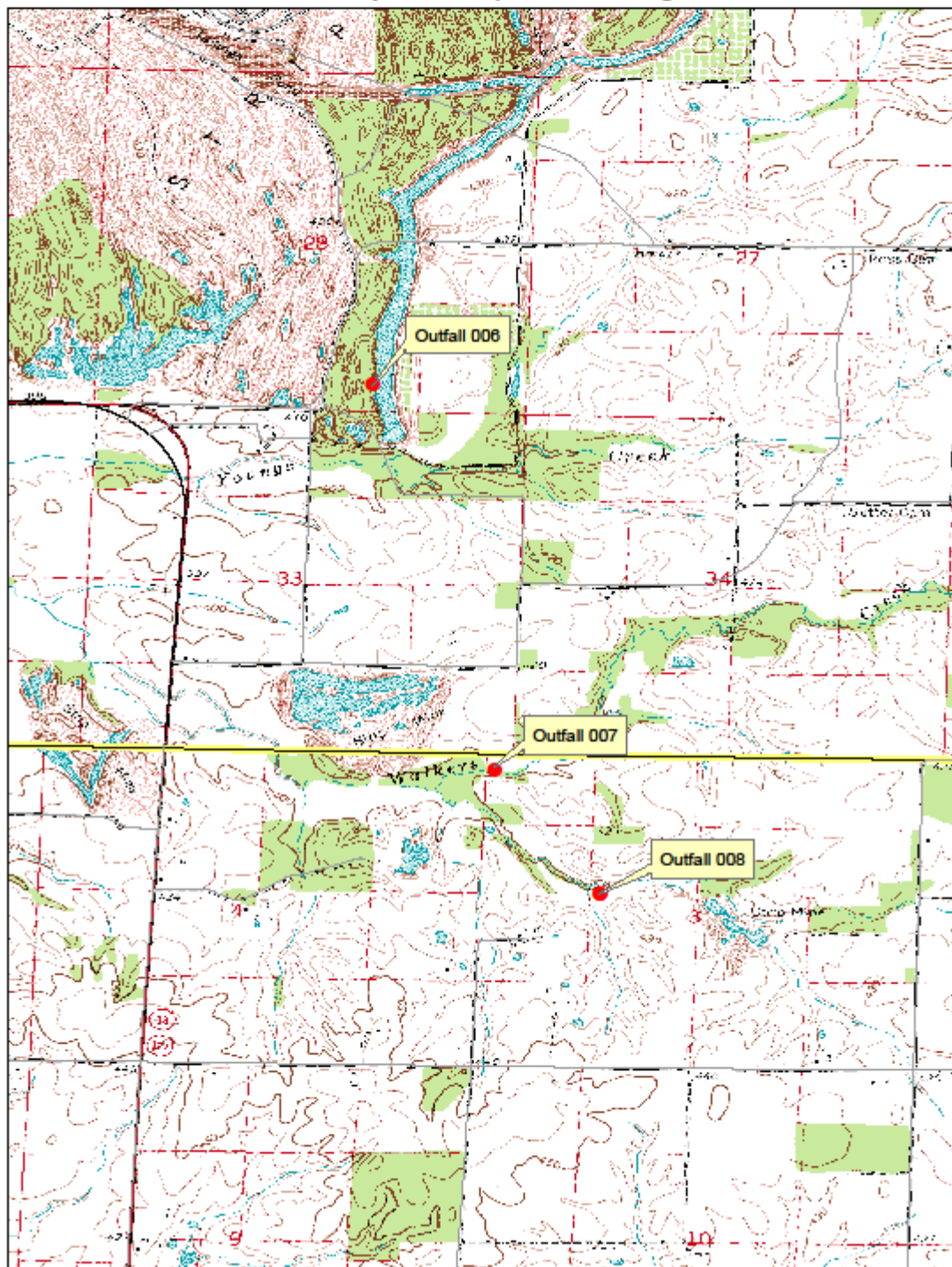
| Discharge Condition | Parameters | | | | | | | | | | | | |
|---------------------|-----------------------------------|---------------|-----------------------------|---------------|---------------|-------------------------|--------------------|-----------------|-------------------|--------------|--------------|-----------------------|------------------------------|
| | 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 | 1951 | 500 | 1.0 | Monitor only | Monitor only | Measure When Sampling | - |
| II | - | - | - | - | 6.0-9.0 | - | 1951 | 500 | - | Monitor only | - | Measure When Sampling | 0.5 |
| III | - | - | - | - | 6.0-9.0 | - | 1951 | 500 | - | Monitor only | - | Measure When Sampling | - |
| IV | 35 | 70 | 3.0 | 6.0 | 6.5-9.0 | Alk.>Acid | 1951 | 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 008, 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 27, 28, 33, 34 and 35, Township 6 South, Range 2 West, 3rd P.M., Perry County and Section 3, Township 7 South, Range 2 West, 3rd P.M., Jackson County.

**Knight Hawk Coal, LLC - Red Hawk Mine
NPDES No. IL0072656**

Perry County - Township 6 South, Range 2 West
Jackson County - Township 7 South, Range 2 West



**Antidegradation Assessment
Knight Hawk Coal, LLC – Red Hawk Mine
NPDES Permit No. IL0072656
Jackson County**

The NPDES permit for the subject facility is being modified to include three additional Incidental Boundary Revisions (IBRs) to OMM Permit 400, which would allow for 20 acres of additional surface mining at each IBR. Runoff from these additional areas would be routed to sediment basin 007 and subsequently discharged from Outfall 007. In addition to these modifications, a new NPDES outfall, Outfall 006, must be incorporated into the renewed permit. Several years ago, a portion of Fidelity Mine property and permit area was transferred into the Knight Hawk, Red Hawk Mine, NPDES permit. However, the monitoring and effluent quality liability for Outfall 006 was retained by Springfield Coal under the Fidelity NPDES permit. At this time, the monitoring requirements as well as the liability for the discharge quality are being transferred into the Knight Hawk, Red Hawk Mine, NPDES permit. The outfalls associated with these modifications are received by Walkers Creek (Outfall 007) and Young's Creek (Outfall 006).

Identification and Characterization of the Affected Water Body.

Walkers Creek (NCC-01) is a General Use stream with zero 7Q10 flow existing upstream of Outfall 007. It is listed on the draft 2012 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use (causes = alteration in streamside or littoral vegetative cover (non-pollutant) and manganese). Walkers Creek has not been given an integrity rating or been listed as biologically significant in the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*. It is not enhanced in regards to the dissolved oxygen water quality standard.

Young's Creek (no segment ID) is a General Use stream with 7Q10 flow existing upstream of Outfall 006. Based on the watershed size (3.28 miles²) of Young's Creek at the project location, this stream is also recognized as a zero 7Q1.1 flow stream. Given its small size, it has not been assessed under the Agency's 305(b)/303(d) program and a biological assessment by the Applicant is not required. Young's Creek has not been given an integrity rating or been listed as biologically significant in the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*. It is not enhanced in regards to the dissolved oxygen water quality standard.

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

No increased pollutant loading into Young's Creek is expected given that no modifications to Outfall 006 are occurring other than the change in ownership and monitoring liability. The additional IBR acreage that would be received by Outfall 007 would contain manganese and total suspended solids (TSS) loadings that are similar to those occurring from the land in its present use (cropland and wildlife habitat). Each outfall would have TSS limits set at the effluent standard and manganese limits set at or below the water quality standard. No additional loadings of TSS or manganese are anticipated. Chloride and sulfate would potentially increase in loading to the receiving streams at the onset of the new mining activities. However, given that previously mined portions of the permit area are now under reclamation, the additional 60 acres of mining are not expected to increase chloride or sulfate concentrations above that which is currently discharged. Based on current effluent concentrations for Outfall 007, chloride and sulfate water quality standards are expected to be met in the streams receiving discharges from these outfalls. No adverse impacts to the receiving streams are anticipated.

Fate and Effect of Parameters Proposed for Increased Loading.

Sulfate and chloride would remain dissolved in the water and would move through the downstream continuum. Small amounts would be removed by organisms as these substances are necessary for life. No adverse impacts to streams would occur as all water quality standards are expected to be met in the receiving waters.

Purpose and Social & Economic Benefits of the Proposed Activity.

The proposed activity would allow the surface mine to continue extraction of coal resources at the site. Mining of the additional areas would preserve jobs and allow for continued ancillary benefits provided to the local and regional economy.

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

The use of the existing sedimentation basin and permitted NPDES outfall for treatment of runoff from the proposed IBR areas is the most practical method of minimizing pollutant loading from the stormwater discharges that would occur. An assessment of alternatives or options to minimize the potential increases in pollutant loading from sediment basins was conducted by the Applicant for their previous expansion of Outfall 007 in September, 2010. This assessment included consideration of the following alternatives, each of which was considered infeasible or impractical: no mining; no discharge of stormwater from the site, discharge of stormwater to publicly-owned treatment works or other sources; and alternative onsite treatment technologies. It is impractical to further evaluate these alternatives given that an existing sedimentation basin and outfall would be used for the small increase in mining acreage, and all water quality standards are expected to be met in Outfall 007 effluent.

**Antidegradation Assessment
Knight Hawk Coal, LLC – Red Hawk Mine
NPDES Permit No. IL0072656
Jackson County**

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

The IDNR EcoCAT system was consulted on December 6, 2013 in regards to the proposed activities. It was determined that no threatened or endangered species or protected natural areas are in the vicinity of the areas. Consultation was immediately terminated in the December 6, 2013 automated reply from IDNR.

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 would result in the attainment of water quality standards; that all existing uses of the receiving streams would 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 would benefit the community at large by preserving existing mining jobs and the ancillary economic benefits of these jobs to the local economy. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

NPDES Permit No. IL0072656

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

Modified and Renewed NPDES Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

Facility Name and Address:

Knight Hawk Coal, L.L.C.
500 Cutler-Trico Road
Percy, Illinois 62272

Knight Hawk Coal, L.L.C.
Red Hawk Mine
4 miles north of Vergennes, Illinois
(Perry and Jackson Counties)

Discharge Number and Classification:

Receiving waters

006 Alkaline Mine Drainage
007 Alkaline Mine Drainage
008 Alkaline Mine Drainage

Young's Creek
Walkers Creek
Unnamed tributary to Walkers 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, P.E., Permit Manager
Mine Pollution Control Program
Bureau of Water

LDC:DM:cs/6676c/12-30-13

NPDES Coal Mine Permit
 NPDES Permit No. IL0072656
 Effluent Limitations and Monitoring

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

Outfall*: 006 (Alkaline Mine Drainage)

| Discharge Condition | Parameters | | | | | | | | | | | | |
|---------------------|-----------------------------------|---------------|-------------------------|---------------|-----------------|-------------------------|--------------------|---------------------|-----------------------|--------------|--------------------------------------|-----------------------|--------------------------|
| | Total Suspended Solids (mg/l) *** | | Iron (total) (mg/l) *** | | pH** (S.U.) *** | Alkalinity/ Acidity *** | Sulfate (mg/l) *** | Chloride (mg/l) *** | Mn (total) (mg/l) *** | Hardness *** | Mercury see Special Condition No. 15 | 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 | 2000 | 500 | 1.0 | Monitor only | Monitor only | Measure When Sampling | - |
| II | - | - | - | - | 6.0-9.0 | - | 2000 | 500 | - | Monitor only | - | Measure When Sampling | 0.5 |
| III | - | - | - | - | 6.0-9.0 | - | 2000 | 500 | - | Monitor only | - | Measure When Sampling | - |
| IV | 35 | 70 | 3.5 | 7.0 | 6.5-9.0 | Alk.>Acid | 2000 | 500 | 1.0 | Monitor only | Monitor only | Measure When Sampling | - |

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

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

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

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

* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 13 for the discharges from Outfall 006 and Young's Creek receiving such discharges.

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

NPDES Coal Mine Permit
NPDES Permit No. IL0072656
Effluent Limitations and Monitoring

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

Outfall*: 007 (Alkaline Mine Drainage)

| Discharge Condition | Parameters | | | | | | | | | | | | |
|---------------------|-----------------------------------|---------------|-------------------------|---------------|-----------------|-------------------------|--------------------|---------------------|-----------------------|--------------|--------------------------------------|-----------------------|--------------------------|
| | Total Suspended Solids (mg/l) *** | | Iron (total) (mg/l) *** | | pH** (S.U.) *** | Alkalinity/ Acidity *** | Sulfate (mg/l) *** | Chloride (mg/l) *** | Mn (total) (mg/l) *** | Hardness *** | Mercury see Special Condition No. 15 | Flow (MGD) | Settleable Solids (ml/l) |
| | 30 day average | daily maximum | 30 day average | daily maximum | | | | | | | | | |
| I | 35 | 70 | 3.0 | 6.0 | 6.5-9.0 | Alk.>Acid | 2000 | 500 | 1.0 | Monitor only | Monitor only | Measure When Sampling | - |
| II | - | - | - | - | 6.0-9.0 | - | 2000 | 500 | - | Monitor only | - | Measure When Sampling | 0.5 |
| III | - | - | - | - | 6.0-9.0 | - | 2000 | 500 | - | Monitor only | - | Measure When Sampling | - |
| IV | 35 | 70 | 3.0 | 6.0 | 6.5-9.0 | Alk.>Acid | 2000 | 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 007 and Walkers 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. IL0072656
 Effluent Limitations and Monitoring

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

Outfall*: 008 (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 | 1951 | 500 | 1.0 | Monitor only | Monitor only | Measure When Sampling | - |
| II | - | - | - | - | 6.0-9.0 | - | 1951 | 500 | - | Monitor only | - | Measure When Sampling | 0.5 |
| III | - | - | - | - | 6.0-9.0 | - | 1951 | 500 | - | Monitor only | - | Measure When Sampling | - |
| IV | 35 | 70 | 3.0 | 6.0 | 6.5-9.0 | Alk.>Acid | 1951 | 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 008 and the unnamed tributary to Walkers 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. IL0072656
Effluent Limitations and Monitoring

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

Outfall*: 006 (Reclamation Area Drainage)

| Discharge Condition | Parameters | | | | | |
|---------------------|-----------------------|--------------------------|---------------------------|-----------------|-----------------------------|---------------------------------------|
| | pH** (S.U.) *** | Sulfate (mg/l) *** | Chloride (mg/l) *** | Hardness *** | Flow (MGD) | Settleable Solids (ml/l) *** |
| I | 6.5-9.0 | 2000 | 500 | Monitor only | Measure When Sampling | 0.5 |
| II | 6.0-9.0 | 2000 | 500 | Monitor only | Measure When Sampling | 0.5 |
| III | 6.0-9.0 | 2000 | 500 | Monitor only | Measure When Sampling | - |
| IV | 6.5-9.0 | 2000 | 500 | Monitor only | Measure When Sampling | 0.5 |

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

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

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

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

* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 13 for the discharges from Outfall 006 and Young's Creek receiving such discharges.

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

NPDES Coal Mine Permit
NPDES Permit No. IL0072656
Effluent Limitations and Monitoring

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

Outfall*: 007 (Reclamation Area Drainage)

| Discharge Condition | Parameters | | | | | |
|---------------------|-----------------------|--------------------------|---------------------------|-----------------|-----------------------------|---------------------------------------|
| | pH** (S.U.) *** | Sulfate (mg/l) *** | Chloride (mg/l) *** | Hardness *** | Flow (MGD) | Settleable Solids (ml/l) *** |
| I | 6.5-9.0 | 2000 | 500 | Monitor only | Measure When Sampling | 0.5 |
| II | 6.0-9.0 | 2000 | 500 | Monitor only | Measure When Sampling | 0.5 |
| III | 6.0-9.0 | 2000 | 500 | Monitor only | Measure When Sampling | - |
| IV | 6.5-9.0 | 2000 | 500 | Monitor only | Measure When Sampling | 0.5 |

- I Dry weather discharge (base flow, if present) from the outfall.
- II In accordance with 35 Ill. Adm. Code 406.109(b), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations. The 10-year, 24-hour precipitation event for this area is considered to be 5.21 inches.
- III In accordance with 35 Ill. Adm. Code 406.109(c), any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For reclamation area discharges, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

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

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

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

* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 13 for the discharges from Outfall 007 and Walkers 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. IL0072656
Effluent Limitations and Monitoring

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

Outfall*: 008 (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 | 1951 | 500 | Monitor only | Measure When Sampling | 0.5 |
| II | 6.0-9.0 | 1951 | 500 | Monitor only | Measure When Sampling | 0.5 |
| III | 6.0-9.0 | 1951 | 500 | Monitor only | Measure When Sampling | - |
| IV | 6.5-9.0 | 1951 | 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 or equivalent volume) shall comply with the indicated limitations instead of those in 35 Ill. Adm. Code 406.109(b).
- IV Discharges continuing 24 hours after cessation of precipitation event that resulted in discharge. For reclamation area discharges, monitoring requirements and permit limitations of Discharge Condition IV are identical to Discharge Condition I to which the outfall discharge has reverted.

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

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

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

* The Permittee is subject to the limitations, and monitoring and reporting requirements of Special Condition No. 13 for the discharges from Outfall 008 and the unnamed tributary to Walkers 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. IL0072656
 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: 006, 007, 008 (Stormwater Discharge)

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

Stormwater discharge monitoring is subject to the following reporting requirements:

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

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

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

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

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

NPDES Permit No. IL0072656

Construction Authorization No. 6407-12

C.A. Date: December 24, 2013

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

Surface mine containing 1242.6 acres located in Section 27, 28, 33, 34 and 35, Township 6 South, Range 2 West, Perry County, Illinois and Section 2 and 3, Township 7 South, Range 2 West, Jackson County, Illinois.

The facilities at this mine site include breaker and hopper, wash and screen plant, parking area, mine office, fuel and lube maintenance area, haul roads, coal storage piles, soil stockpiles, refuse area, ditches and three (3) sediment ponds, and a stream diversion.

This permit renewal and modification includes the following additions to the permit area:

As described and depicted in IEPA Log No. 6216-12 and identified as IBR No. 1 to OMM Permit No. 400, an additional area consisting of 20.0 acres located in Sections 3, Township 7 South, Range 2 West, Jackson County, which is contiguous with OMM Permit No. 400 has been incorporated into the permit area. This area will be utilized for the relocation of an unnamed stream to maximize the recovery of coal. This additional area is included in the total permit acreage cited above.

An area consisting of 20 acres and identified as IBR No. 2 to OMM Permit No. 400 was originally submitted and approved under IEPA Log No. 8273-10. This IBR area was redesigned and resubmitted under IEPA Log No. 6218-12. This IBR No. 2 area is depicted in IEPA Log No. 6218-12 and described as consisting of 20.0 acres located in Sections 3, Township 7 South, Range 2 West, Jackson County, which is contiguous with OMM Permit No. 400. The existing final cut lake partially located within this area will be dewatered to provide for re-mining of this area to remove the remaining #5 coal seam as well as #6 coal seam in areas not mined by the previous operation.

As described and depicted in IEPA Log No. 6223-12 and identified as IBR No. 3 to OMM Permit 400, an additional area consisting of 20.0 acres located in Sections 3, Township 7 South, Range 2 West, Jackson County, which is contiguous with OMM Permit No. 400 has been incorporated into the permit area. The existing final cut lake partially located within this area will be dewatered to provide for re-mining of this area to remove the remaining #5 coal seam as well as #6 coal seam in areas not mined by the previous operation. This additional area is included in the total permit acreage cited above.

As described and depicted in IEPA Log No. 5308-13, an additional area consisting of 20.0 acres located in Section 2, Township 7 South, Range 2 West, Jackson County, which is contiguous with OMM Permit No. 400 has been incorporated into the permit area. This additional area will be utilized for development of a box cut to initiate mining activities and maximize coal recovery. This additional area is included in the total permit acreage cited above.

Surface drainage is controlled by three (3) sedimentation ponds. The existing basins have discharges designated as Outfall Nos. 006, 007 and 008 classified as Alkaline Mine Drainage. Discharges from Outfall 006 report to Young's Creek, Outfall 007 reports to Walkers Creek, and Outfall 008 reports to an unnamed tributary to Walkers Creek.

Pursuant to information provided in IEPA Log No. 5135-13, the monitoring, responsibility and discharge quality liability for Outfall 006 is hereby transferred from Springfield Coal Company, LLC, Fidelity Mine under NPDES Permit IL0000302, to Knight Hawk Coal, LLC, Red Hawk Mine. It is noted that the permit area containing Basin and Outfall 006 was previously transferred to Knight Hawk Coal, LLC, Red Hawk Mine; however, at that time liability for the discharges from Outfall 006 remained with Springfield Coal Company, LLC, Fidelity Mine. All future monitoring and reporting of discharges from Outfall 006 shall be performed by Knight Hawk Coal, LLC under this NPDES Permit.

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

| Outfall Number | Latitude | | | Longitude | | | Receiving Water |
|----------------|----------|-----|-------|-----------|-----|-------|------------------------------------|
| | DEG | MIN | SEC | DEG | MIN | SEC | |
| 006 | 37° | 58' | 01" | 89° | 19' | 28" | Young's Creek |
| 007 | 37° | 57' | 1.3" | 89° | 19' | 09.1" | Walkers Creek |
| 008 | 37° | 56' | 42.1" | 89° | 18' | 52.7" | Unnamed tributary to Walkers Creek |

As proposed and depicted in IEPA Log No. 6298-12, Monitoring Well No. SPW-2 has been installed to replace Monitoring Well MW-11 which has been mined through. Groundwater monitoring is required in accordance with Condition No. 12.

This Construction Authorization supersedes and replaces Construction Authorization No. 4373-04 and S.C.A. 4373-04-1 previously issued for the herein permitted facilities and activities.

NPDES Permit No. IL0072656

Construction Authorization No. 6407-12

C.A. Date: December 24, 2013

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 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 permittee must demonstrate in writing to the Agency that such use will not cause a violation of the toxic substances standard of 35 Ill. Adm. Code 302.210 or of the appropriate effluent and water quality standards of 35 Ill. Adm. Code parts 302, 304, and 406.

NPDES Permit No. IL0072656

Construction Authorization No. 6407-12

C.A. Date: December 24, 2013

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. Groundwater monitoring requirements for Well Nos. MW-8W, MW-1W, MW-2E, SPW-1 and SPW-2 are as follows:

- a. Ambient background monitoring shall be performed for Well Nos. MW-1W, MW-2E, SPW-1 and SPW-2. Such ambient monitoring shall consist of six (6) samples collected during the first year (approximately bi-monthly) following well installation but no later than during the first year of operation or disturbance to determine ambient background concentrations. Background monitoring shall include the following list of constituents:

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

NPDES Permit No. IL0072656

Construction Authorization No. 6407-12

C.A. Date: December 24, 2013

b. Following the ambient monitoring as required under Condition No. 12(a) above, routine monitoring shall continue on a quarterly basis as follows:

i. Monitoring Well Nos. MW-1W, MW-2E, SPW-1 and SPW-2 shall continue to be monitored quarterly for the contaminants identified in Condition No. 12(a) above.

ii. Monitoring Well Nos. MW-8W shall be monitored quarterly as required by IDNR/OMM for the following list of constituents:

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

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. 12(a) above.

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

NPDES Permit No. IL0072656

Special Conditions

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

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

Special Condition No. 3: All periodic monitoring and reporting forms, including Discharge Monitoring Report (DMR) forms, shall be submitted to the Agency according to the schedule outlined in Special Condition No. 4 or 5 below with one (1) copy forwarded to each of the following addresses:

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

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

Attn: Compliance Assurance Section

Should electronic filing be available and elected for any periodic monitoring and reporting requirements, written notification shall be provided to the Agency that such electronic filing has been elected and the date on which this filing will be initiated.

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 to request the discharge be classified as a reclamation area discharge. The Agency will notify the permittee upon approval of the change.

Special Condition No. 11: The special stormwater effluent standards apply only on approval from the Agency. To obtain approval, a request with supporting documentation shall be submitted to request the discharge to be classified as a stormwater discharge. The documentation supporting the request shall include analysis results indicating the discharge will consistently comply with reclamation area discharge effluent standards. The Agency will notify the permittee upon approval of the change.

Special Condition No. 12: Annual stormwater monitoring is required for all discharges not reporting to a sediment basin until Final SMCRA Bond is released and approval to cease such monitoring is obtained from the Agency.

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

Special Condition No. 13: Sediment Pond Operation and Maintenance (Outfalls 006, 007 and 008):

- a. For discharges resulting from precipitation events, in addition to the alternate effluent (Discharge Condition Nos. II and III) monitoring requirements, as indicated on the applicable effluent pages of this Permit, discharges from Outfalls 006, 007 and 008 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 Young's Creek which receive discharges from Outfall 006, Walkers Creek which receives discharges from Outfall 007 and the unnamed tributary to Walkers Creek which receives discharges from Outfall 008.
 - 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. Young's Creek, Walkers Creek and the unnamed tributary to Walkers 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. Young's Creek, Walkers Creek and the unnamed tributary to Walkers 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.

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Special Conditions

Special Condition No. 15: Mercury shall be monitored quarterly until a minimum of ten (10) samples have been collected. This Mercury monitoring is required only under Discharge Condition Nos. I and/or IV and only during quarters in which there are discharges from the outfall which occur under Discharge Condition Nos. I and/or IV. Samples shall be collected and tested in accordance with USEPA 1631E using the option at Section 11.1.1.2 requiring the heating of samples at 50°C for 6 hours in a BrCl solution in closed vessels. This test method has a Method Detection Limit (MDL) of 0.5 ng/l (nanograms/liter). The results of such testing must be reported in "ng/l" (nanograms/liter) and submitted with the quarterly Discharge Monitoring Reports (DMRs). The Permittee may submit a written request to the Agency to discontinue quarterly Mercury monitoring if the sampling results show no reasonable potential to exceed the Mercury water quality standard.