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FACT SHEET

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE TREATED WASTEWATER INTO WATERS OF THE COMMONWEALTH

KPDES No.: KY0107735 **Permit Writer:** Heather Dodds **Date:** September 17, 2009
AI No.: 82937

1. SYNOPSIS OF APPLICATION

a. Name and Address of Applicant

The Elk Horn Coal Company LLC
544 South Lake Drive
Prestonsburg, KY 41653

b. Facility Location

DNR Permit No.: 836-5355
Frasure Creek Mine
KY 1929 & Neds Fork Road
East McDowell, Floyd County, Kentucky

c. Description of Applicant's Operation

Underground coal mine (SIC Codes 1222)

d. Production Capacity of Facility

Not Applicable

e. Description of Existing Pollution Abatement Facilities

Sedimentation

f. Permitting Action

First issuance of a minor individual KPDES permit to a “new source” coal mining operation.

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2. RECEIVING WATERS

a. Receiving Water Name

Facility discharges to Frasure Creek at latitude N37-25-29 and longitude W82-42-28, and at latitude N37-25-30 and longitude W82-42-30.

b. Stream Segment Use Classifications

Pursuant to 401 KAR 10:026, Section 5, Frasure Creek carries the following classifications: Warm Water Aquatic Habitat, Fish Consumption, Primary Contact Recreation, Secondary Contact Recreation

c. Stream Segment Antidegradation Categorization

Pursuant to 401 KAR 10:030, Section 1 Frasure Creek is categorized as an "Impaired Waters" for habitat assessment, sedimentation / siltation, sulfates, total dissolved solids, nutrient / eutrophication biological indicators, organic enrichment (sewage) biological indicators.

d. Stream Low Flow Condition

The 7-day, 10-year low flow and harmonic mean conditions of Frasure Creek are 0 and 7.6 cfs, respectively.

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3. REPORTED DISCHARGE AND PROPOSED LIMITS

Description of Discharge - Discharges of “acid or ferruginous mine drainage” from “new source” active mining areas excluding coal preparation plants and coal preparation plat associated areas

Effluent Characteristics	**Reported Discharge**		**Proposed Limits**		**Applicable Water Quality Criteria and/or Effluent Guidelines**
	Monthly Average	**Daily Maximum**	**Monthly Average**	**Daily Maximum**	
Flow (MGD)	Variable	Variable	Report	Report	401 KAR 5:065, Section 2(8)
Conductivity (µmho/cm)	Variable	Variable	Report	Report	401 KAR 5:065, Section 2(8)
Acidity (as mg/l $CaCO_3$)[1]	Variable	Variable	Report	Report	401 KAR 5:080, Section 1(2)(c)2
Alkalinity (as mg/l $CaCO_3$)[1]	Variable	Variable	Report	Report	401 KAR 5:080, Section 1(2)(c)2
Oil & Grease[1]	Variable	Variable	10.0 mg/l	15.0 mg/l	401 KAR 5:080, Section 1(2)(c)2
Total Recoverable Iron	Variable	Variable	3.0 mg/l	4.0 mg/l	401 KAR 10:031, Section 6 401 KAR 5:065, Sections 2, 4 and 5
Total Recoverable Manganese	Variable	Variable	2.0 mg/l	4.0 mg/l	401 KAR 5:065, Sections 2, 4 and 5
Total Suspended Solids	Variable	Variable	35.0 mg/l	70.0 mg/l	401 KAR 5:065, Sections 2, 4 and 5
pH (standard units)[2]	Variable	Variable	6.0 (min.)	9.0 (max.)	401 KAR 10:031, Section 4(1)(b) 401 KAR 5:065, Sections 4 and 5

[1]At all times acidity shall be less than alkalinity.

[2]The limits and monitoring for Oil & Grease do not apply if the permittee has developed and implemented a “Best Management Practices” (BMP) plan as required by this permit. The BMP plan shall include a specific section that addresses the handling, storage and disposal of petroleum products and the maintenance procedures for mining equipment.

[3]These types of discharges shall not cause the pH of the receiving stream to fluctuate more that 1.0 standard unit over a period of 24 hours.

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4. METHODOLOGY USED IN DETERMINING LIMITATIONS

a. Description of Discharge

Discharges of “acid or ferruginous mine drainage” from “new source” active mining areas, excluding coal preparation plants and coal preparation plant associated areas

b. Effluent Characteristics

Flow	Total Recoverable Iron	Total Recoverable Manganese
Acidity	Alkalinity	Total Suspended Solids
Oil & Grease	Conductivity	pH

c. Pertinent Factors

The term **"acid or ferruginous mine drainage"** means mine drainage which, before any treatment, has a pH of less than 6.0 or has a total recoverable iron concentration equal to or greater than 10.0 mg/l.

The terms **"coal mine”** means a coal mine on which construction is commenced after May 4, 1984 or which is determined by the Director of the KYDOW to constitute a "major alteration."

The term **“major alteration”** means a coal mine for which the KYDOW determines that a new, altered, or increased discharge of pollutants has occurred after May 4, 1984, in connection with the mine for which the KPDES permit is being considered. In making this determination, the KYDOW shall take into account one (1) or more of the following events: 1) Extraction of a coal seam not previously extracted by that mine; 2) Discharge into a drainage area not previously affected by wastewater discharges from the mine; 3) Extensive new surface disturbance at the mining operation; 4) Construction of a new shaft, slope, or drift; and 5) Such other factors as the Director of the KYDOW deems relevant.

The discharges associated with this facility occur in response to precipitation events.

d. Monitoring Requirements

Instantaneous flow measurements shall be collected twice per month.

pH, Total Recoverable Iron, Total Recoverable Manganese and Total Suspended Solids shall be monitored twice per month by grab sample.

Acidity, Alkalinity, Conductivity, Oil & Grease shall be monitored once per month by grab sample.

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4. METHODOLOGY USED IN DETERMINING LIMITATIONS

e. Justification of Limits

The Kentucky Administrative Regulations (KARs) cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes (KRSs).

Flow and Conductivity
The monitoring requirements for these parameters are consistent with the requirements of 401 KAR 5:065, Section 2(8).

Acidity, Alkalinity, and Oil & Grease
The limits and requirements for these parameters are consistent with the requirements of 401 KAR 5:080, Section 1(2)(c)2. These limits are representative of the Division of Water's "Best Professional Judgment" (BPJ) determination of the "Best Practicable Control Technology Currently Available" (BPT) and "Best Available Technology Economically Achievable" (BAT) requirements for these types of discharges.

Total Recoverable Manganese and Total Suspended Solids
The limits for these parameters are consistent with the requirements of 401 KAR 5:065, Sections 4 and 5. These limits are representative of the “New Source Performance” (NSPS) requirements for these types of discharges pursuant to 40 CFR Parts 434.35.

Total Recoverable Iron
The limits for this parameter are consistent with the requirements of 401 KAR 10:031, Section 6 and 401 KAR 5:065, Sections 2, 4 & 5. These limits are representative of the “New Source Performance” (NSPS) requirements for these types of discharges pursuant to 40 CFR Parts 434.35. Based on EPA memorandums from August 13, 1998 and May 21, 1996 the terms Total Iron and Total Recoverable Iron are synonymous therefore as Kentucky’s Water Quality Criteria are expressed terms of total recoverable the term Total Recoverable Iron shall be used. Pursuant to 401 KAR 5:065, Section 2(4) water quality standards are to be included in the KPDES permit when it is necessary to achieve water quality standards. Title 401 KAR 10:031, Section 6 Table 1 establishes an acute criterion of 4.0 mg/l and a chronic criterion of 1.0 mg/l for this parameter. Footnote 8 of that table states that the chronic criterion for iron shall not exceed 3.5 mg/l if aquatic life has not been shown to be adversely impacted. The Division of Water is therefore implementing only the acute criterion as a daily maximum in this permit. The implementation of the chronic criterion of 1.0 mg/l would indicate that the aquatic life of that segment of the receiving stream had been adversely impacted and therefore would render any discharge to that segment ineligible for general permit coverage and necessitate an individual permit.

pH
The limits for this parameter are consistent with the requirements of 401 KAR 10:031, Section 4(1)(b) and 5:065, Sections 4 and 5. These limits are representative of the “New Source Performance” (NSPS) requirements for these types of discharges pursuant to 40 CFR Parts 434.35.

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4. METHODOLOGY USED IN DETERMINING LIMITATIONS

e. Justification of Limits

Metals, Cyanide and Total Phenols

The following table represents the Division of Water's evaluation of the reasonable potential that the discharge of these pollutants would violate water quality standards. Due to the discharges from the activities being precipitation dependant and the receiving waters having a 7Q10 low flow condition of zero (0) cfs the Division of Water has determined that effluent data shall be compared to the acute criterions for these pollutants. In accordance with Division of Water's EPA approved Reasonable Potential Analysis if the reported value is 90% or greater for less than 5 samples then a monitoring requirement shall be included in the permit.

Pollutant	Reported Value (µg/l)	Acute Criteria (µg/l)	Percent	Reasonable Potential
Antimony	N/A	**NONE**	N/A	N/A
Arsenic	N/A	**340**	N/A	N/A
Beryllium	N/A	**NONE**	N/A	N/A
Cadmium	N/A	**2.13**	N/A	N/A
Chromium	N/A	**16**	N/A	N/A
Copper	N/A	**14**	N/A	N/A
Lead	N/A	**82**	N/A	N/A
Mercury	N/A	**1.4**	N/A	N/A
Nickel	N/A	**469**	N/A	N/A
Selenium	N/A	**20**	N/A	N/A
Silver	N/A	**3.78**	N/A	N/A
Thallium	N/A	**NONE**	N/A	N/A
Zinc	N/A	**120**	N/A	N/A
Cyanide	N/A	**22**	N/A	N/A
Phenol	N/A	**NONE**	N/A	N/A

Because the application is for a new activity which does not have any existing discharge points then the applicant shall within two years of issuance of the general permit coverage letter and within one year of the completion of construction of sediment treatment ponds provide the required analytical data to KDOW.

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5. REPORTED DISCHARGE AND PROPOSED LIMITS

Description of Discharge – Discharges of "acid or ferruginous mine drainage" from "new source" post mining areas (reclamation areas) excluding underground mine drainage

Effluent Characteristics	Reported Discharge Monthly Average	Reported Discharge Daily Maximum	Proposed Limits Monthly Average	Proposed Limits Daily Maximum	Applicable Water Quality Criteria and/or Effluent Guidelines
Flow (MGD)	Variable	Variable	Report	Report	401 KAR 5:065, Section 2(8)
Conductivity (µmho/cm)	Variable	Variable	Report	Report	401 KAR 5:065, Section 2(8)
Acidity (as mg/l $CaCO_3$)[1]	Variable	Variable	Report	Report	401 KAR 5:080, Section 1(2)(c)2
Alkalinity (as mg/l $CaCO_3$)[1]	Variable	Variable	Report	Report	401 KAR 5:080, Section 1(2)(c)2
Oil & Grease[2]	Variable	Variable	10.0 mg/l	15.0 mg/l	401 KAR 5:080, Section 1(2)(c)2
Settleable Solids[3]	Variable	Variable	N/A	0.5 ml/l	401 KAR 5:065, Sections 2, 4 and 5
pH (standard units[4]	Variable	Variable	6.0 (min.)	9.0 (max.)	401 KAR 10:031, Section 4(1)(b) 401 KAR 5:065, Sections 4 and 5

[1]At all times acidity shall be less than alkalinity.

[2]The limits and monitoring for Oil & Grease do not apply if the permittee has developed and implemented a "Best Management Practices" (BMP) plan as required by this permit. The BMP plan shall include a specific section that addresses the handling, storage and disposal of petroleum products and the maintenance procedures for mining equipment.

[3]The limitation for Settleable Solids is an instantaneous maximum

[4]These types of discharges shall not cause the pH of the receiving stream to fluctuate more that 1.0 standard unit over a period of 24 hours.

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6. METHODOLOGY USED IN DETERMINING LIMITATIONS

a. Description of Discharge

Discharges of "acid or ferruginous mine drainage" from "existing source" or "new discharger" post mining areas (reclamation areas) excluding underground mine drainage

b. Effluent Characteristics

Flow	Settleable Solids	Oil & Grease
Acidity	Alkalinity	pH
Conductivity		

c. Pertinent Factors

The term **"acid or ferruginous mine drainage"** means mine drainage which, before any treatment, has a pH of less than 6.0 or has a total recoverable iron concentration equal to or greater than 10.0 mg/l.

The term **"post mining area"** means: 1) A reclamation area; or 2) The underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release.

The term **"reclamation area"** means the surface area of a coal mine, which has been returned to required contour and on which revegetation (specifically, seeding or planting) work has commenced.

The term **"phase I reclamation bond release"** means release by the Department for Natural Resources of a portion of the performance bond after the following work has been completed: backfilling, re-grading, top soil replacement, drainage control work, including soil preparation, re-grading, seeding, planting, and mulching in accordance with the approved reclamation plan.

The term **"final bond release"** means the time at which the Department for Natural Resources returns any remaining reclamation or performance bond based upon its determination that reclamation work (including, in the case of underground mines, mine sealing, and abandonment procedures) and revegetation requirements have been satisfactorily completed.

The term **"instantaneous maximum"** means the maximum value not to be exceeded at any time.

The limits for post mining areas (reclamation areas) are applicable to discharges for which "phase I reclamation bond release" has been received and remains in effect until "final bond release" is received.

d. Monitoring Requirements

Instantaneous flow measurements shall be collected once per month for the first six (6) months after Phase I Bond Release, then once per quarter thereafter, unless otherwise notified by Cabinet personnel.

Acidity, Alkalinity, Conductivity, Oil & Grease, pH and Settleable Solids shall be monitored once per month for the first six (6) months after Phase I Bond Release, then once per quarter thereafter, unless otherwise notified by Cabinet personnel.

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6. METHODOLOGY USED IN DETERMINING LIMITATIONS

e. Justification of Limits

The Kentucky Administrative Regulations (KARs) cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes (KRSs).

Flow and Conductivity
The monitoring requirements for these parameters are consistent with the requirements of 401 KAR 5:065, Section 2(8).

Acidity, Alkalinity, and Oil & Grease
The limits and requirements for these parameters are consistent with the requirements of 401 KAR 5:080, Section 1(2)(c)2. These limits are representative of the Division of Water's "Best Professional Judgment" (BPJ) determination of the "Best Practicable Control Technology Currently Available" (BPT) and "Best Available Technology Economically Achievable" (BAT) requirements for these types of discharges.

Settleable Solids
The limits for this parameter are consistent with the requirements of 401 KAR 5:065, Sections 4 and 5. These limits are representative of the "Best Practicable Control Technology Currently Available" (BPT) and "Best Available Technology Economically Achievable" (BAT) requirements for these types of discharges pursuant to 40 CFR Parts 434.55(a).

pH
The limits for this parameter are consistent with the requirements of 401 KAR 10:031, Section 4(1)(b) and 5:065, Sections 4 and 5. These limits are representative of the "Best Practicable Control Technology Currently Available" (BPT) and "Best Available Technology Economically Achievable" (BAT) requirements for these types of discharges pursuant to 40 CFR Parts 434.55(a).

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7. REPORTED DISCHARGE AND PROPOSED LIMITS

Description of Discharge – Discharges of "acid or ferruginous mine drainage" from "new source" post mining areas (underground mine drainage)

Effluent Characteristics	**Reported Discharge**		**Proposed Limits**		**Applicable Water Quality Criteria and/or Effluent Guidelines**
	Monthly Average	**Daily Maximum**	**Monthly Average**	**Daily Maximum**	
Flow (MGD)	Variable	Variable	Report	Report	401 KAR 5:065, Section 2(8)
Conductivity (µS/cm)	Variable	Variable	Report	Report	401 KAR 5:065, Section 2(8)
Acidity[1] (as mg/l $CaCO_3$)	Variable	Variable	Report	Report	401 KAR 5:080, Section 1(2)(c)2
Alkalinity[1] (as mg/l $CaCO_3$)	Variable	Variable	Report	Report	401 KAR 5:080, Section 1(2)(c)2
Oil & Grease[2]	Variable	Variable	10.0 mg/l	15.0 mg/l	401 KAR 5:080, Section 1(2)(c)2
Total Recoverable Iron	Variable	Variable	3.0 mg/l	4.0 mg/l	401 KAR 10:031, Section 6 401 KAR 5:065, Sections 2, 4 and 5
Total Recoverable Manganese	Variable	Variable	2.0 mg/l	4.0 mg/l	401 KAR 5:065, Sections 4 and 5
Total Suspended Solids	Variable	Variable	35.0 mg/l	70.0 mg/l	401 KAR 5:065, Sections 4 and 5
pH[3] Standard units)	Variable	Variable	6.0 (min.)	9.0 (max.)	401 KAR 10:031, Section 4(1)(b) 401 KAR 5:065, Sections 4 and 5

[1]At all times acidity shall be less than alkalinity.

[2]The limits and monitoring for Oil & Grease do not apply if the permittee has developed and implemented a "Best Management Practices" (BMP) plan as required by this permit. The BMP plan shall include a specific section that addresses the handling, storage and disposal of petroleum products and the maintenance procedures for mining equipment.

[3]These types of discharges shall not cause the pH of the receiving stream to fluctuate more that 1.0 standard unit over a period of 24 hours.

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8. METHODOLOGY USED IN DETERMINING LIMITATIONS

a. Description of Discharge

Discharges of “acid or ferruginous mine drainage” from “existing source” or “new discharger” post mining areas (underground mine drainage)

b. Effluent Characteristics

Flow	Total Recoverable Iron	Total Recoverable Manganese
Acidity	Alkalinity	Total Suspended Solids
Oil & Grease	Conductivity	pH

c. Pertinent Factors

The term **"acid or ferruginous mine drainage"** means mine drainage which, before any treatment, has a pH of less than 6.0 or has a total recoverable iron concentration equal to or greater than 10.0 mg/l.

The terms **"coal mine”** means a coal mine on which construction is commenced after May 4, 1984 or which is determined by the Director of the KYDOW to constitute a "major alteration."

The term **“major alteration”** means a coal mine for which the KYDOW determines that a new, altered, or increased discharge of pollutants has occurred after May 4, 1984, in connection with the mine for which the KPDES permit is being considered. In making this determination, the KYDOW shall take into account one (1) or more of the following events: 1) Extraction of a coal seam not previously extracted by that mine; 2) Discharge into a drainage area not previously affected by wastewater discharges from the mine; 3) Extensive new surface disturbance at the mining operation; 4) Construction of a new shaft, slope, or drift; and 5) Such other factors as the Director of the KYDOW deems relevant.

The term **"post mining area"** means: 1) A reclamation area; or 2) The underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release.

The term **“underground workings of an underground mine”** means the underground workings including shafts, adits, support facilities, etc. of an underground mine, but excludes surface disturbances associated with the underground mine.

The limits for post mining areas (underground mine drainage) are applicable to discharges until “final bond release” is received.

d. Monitoring Requirements

Instantaneous flow measurements shall be collected twice per month.

pH, Total Recoverable Iron, Total Recoverable Manganese and Total Suspended Solids shall be monitored twice per month by grab sample.

Acidity, Alkalinity, Conductivity, Oil & Grease shall be monitored once per month by grab sample.

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8. METHODOLOGY USED IN DETERMINING LIMITATIONS

e. Justification of Limits

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Total Recoverable Manganese and Total Suspended Solids
The limits for these parameters are consistent with the requirements of 401 KAR 5:065, Sections 4 and 5. These limits are representative of the “New Source Performance” (NSPS) requirements for these types of discharges pursuant to 40 CFR Parts 434.55 (b)(1).

Total Recoverable Iron
The limits for this parameter are consistent with the requirements of 401 KAR 10:031, Section 6 and 401 KAR 5:065, Sections 2, 4 & 5. These limits are representative of the “New Source Performance” (NSPS) requirements for these types of discharges pursuant to 40 CFR Parts 434.55(b)(1). Based on EPA memorandums from August 13, 1998 and May 21, 1996 the terms Total Iron and Total Recoverable Iron are synonymous therefore as Kentucky’s Water Quality Criteria are expressed terms of total recoverable the term Total Recoverable Iron shall be used. Pursuant to 401 KAR 5:065, Section 2(4) water quality standards are to be included in the KPDES permit when it is necessary to achieve water quality standards. Title 401 KAR 10:031, Section 6 Table 1 establishes an acute criterion of 4.0 mg/l and a chronic criterion of 1.0 mg/l for this parameter. Footnote 8 of that table states that the chronic criterion for iron shall not exceed 3.5 mg/l if aquatic life has not been shown to be adversely impacted. The Division of Water is therefore implementing only the acute criterion as a daily maximum in this permit. The implementation of the chronic criterion of 1.0 mg/l would indicate that the aquatic life of that segment of the receiving stream had been adversely impacted and therefore would render any discharge to that segment ineligible for general permit coverage and necessitate an individual permit.

pH
The limits for this parameter are consistent with the requirements of 401 KAR 10:031, Section 4(1)(b) and 5:065, Sections 4 and 5. These limits are representative of the “New Source Performance” (NSPS) requirements for these types of discharges pursuant to 40 CFR Parts 434.55(b)(1).

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8. METHODOLOGY USED IN DETERMINING LIMITATIONS

e. Justification of Limits

Metals, Cyanide and Total Phenols

The following table represents the Division of Water's evaluation of the reasonable potential that the discharge of these pollutants would violate water quality standards. Due to the discharges from the activities being precipitation dependant and the receiving waters having a 7Q10 low flow condition of zero (0) cfs the Division of Water has determined that effluent data shall be compared to the acute criterions for these pollutants. In accordance with Division of Water's EPA approved Reasonable Potential Analysis if the reported value is 90% or greater for less than 5 samples then a monitoring requirement shall be included in the permit.

Pollutant	Reported Value (µg/l)	Acute Criteria (µg/l)	Percent	Reasonable Potential
Antimony	N/A	**NONE**	N/A	N/A
Arsenic	N/A	**340**	N/A	N/A
Beryllium	N/A	**NONE**	N/A	N/A
Cadmium	N/A	**2.13**	N/A	N/A
Chromium	N/A	**16**	N/A	N/A
Copper	N/A	**14**	N/A	N/A
Lead	N/A	**82**	N/A	N/A
Mercury	N/A	**1.4**	N/A	N/A
Nickel	N/A	**469**	N/A	N/A
Selenium	N/A	**20**	N/A	N/A
Silver	N/A	**3.78**	N/A	N/A
Thallium	N/A	**NONE**	N/A	N/A
Zinc	N/A	**120**	N/A	N/A
Cyanide	N/A	**22**	N/A	N/A
Phenol	N/A	**NONE**	N/A	N/A

Because the application is for a new activity which does not have any existing discharge points then the applicant shall within two years of issuance of the general permit coverage letter and within one year of the completion of construction of sediment treatment ponds provide the required analytical data to KDOW.

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9. ANTIDEGRADATION

The conditions of 401 KAR 10:029, Section 1 have been satisfied by this permit action. This permit action involves the first issuance of a new permit. This new discharge is to "impaired waters". Therefore, a review under 401 KAR 10:030 Section 1 is not applicable.

10. PROPOSED COMPLIANCE SCHEDULE FOR ATTAINING EFFLUENT LIMITATIONS

Permittee shall comply with the effluent limitations by the effective date of the permit with the following exception.

11. PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE

Alkaline Mine Reclassification

The procedures for reclassifying an operation from "acid or ferruginous" mine drainage to "alkaline" mine drainage are consistent with the requirements of 401 KAR 5:065, Section 2, 4 and 5. "Alkaline mine drainage" is defined in the Coal Mining Point Source Category Effluent Guidelines (General Definitions – 40 CFR 434.11) as mine drainage which prior to any treatment has a pH equal to or greater than 6.0 standard units and a Total Recoverable Iron concentration of less than 10 mg/l.

Alternate Effluent Limitations - pH

The procedures for requesting an alternate pH final effluent limit to allow for removal of total recoverable manganese are consistent with the requirements of 401 KAR 5:065, Section 2(1), 4 and 5. In accordance with the Coal Mining Point Source Category Effluent Guidelines (Alternate effluent limitation for pH – 40 CFR 434.61) the permit issuing authority may allow the pH level in the final effluent to exceed 9.0 standard units to a small extent in order that total recoverable manganese limitations may be achieved when the application of neutralization and sedimentation treatment technology results in the inability to comply.

Alternate Effluent Limitations - Precipitation

The procedures for requesting an alternate precipitation effluent limit are consistent with the requirements of 401 KAR 5:065, Section 2(1), 4 and 5. In accordance with the Coal Mining Point Source Category Effluent Guidelines (Alternate effluent limitation for precipitation events – 40 CFR 434.63) the permit issuing authority may grant on an event-by-event basis alternate effluent limitations based on type of discharge and preceding 24-hour precipitation.

Authorization to Discharge

The permittee is authorized to discharge under the terms of the general permit upon receipt of written notification by the KYDOW and upon the issuance of a fully effective permanent program permit by DNR.

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11. PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE - continued

Benthic Macroinvertebrate Assessment

As a result of recent studies demonstrating a correlation between coal mining activities and adverse biological impacts on receiving waters EPA has mandated that KDOW include a condition in the general permit requiring all operations covered by this reissued general permit to conduct a one-time benthic macroinvertebrate assessment immediately downstream of an outfall in each watershed impacted by the mining operation. Pursuant to 401 KAR 5:065, Section 1(8) the permittee has the duty to provide any information the Cabinet may request to determine whether cause exists to modify, revoke and reissue, or revoke a permit. To ensure the generation of viable data KDOW has mandated the assessments be performed in accordance with the guidance in KDOW Document DOWSOP03003 – Methods for Sampling Benthic Macroinvertebrate Communities in Wadeable Waters March, 2009 on each HUC 14 impacted by the mining operation. In the opinion of KDOW the HUC 14 is the optimum size for the performance of these assessments. These units are neither too large to collect sufficient data nor too small to require excessive data collection and potential negative impact on the biological community.

Best Management Practices (BMP) Plan

Pursuant to 401 KAR 5:065, Section 2(10), a BMP requirement shall be included: to control or abate the discharge of pollutants from ancillary areas containing toxic or hazardous substances or those substances which could result in an environmental emergency; where numeric effluent limitations are infeasible; or to carry out the purposes and intent of KRS 224. Ancillary activities associated with mining operations include the storage and distribution of petroleum based products, equipment repair and maintenance activities, haul roads, exploration sites and access areas. Such activities have the potential to discharge to waters of the commonwealth without being directed through existing treatment units.

Commingling of Wastestreams

Where wastestreams from any facility covered by this permit are combined for treatment or discharge with wastestreams from another facility, the concentration of each pollutant in the combined discharge may not exceed the most stringent limitations for that pollutant applicable to any component wastestream of the discharge. This requirement is consistent with the requirements of 401 KAR 5:065, Sections 2, 4 and 5 (40 CFR Part 434.61).

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11. PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE – continued

Department of the Army, Corps of Engineers Condition

Pursuant to the requirements of 40 CFR 124.59(a) and 401 KAR 5:075, Section 9 the following special condition is applicable to certain coal mining operations, which affect anchorage and navigation of any waters of the United States, which are under the jurisdiction of the Corps of Engineers. The applicability of this condition to specific dischargers will be included in the written notice from the DOW that authorizes discharge under this permit.

The permittee shall undertake erosion control practices which utilize proper sedimentation control measures in order to minimize resultant sedimentation in navigable waters which occur as a result of discharges from both point and non-point sources connected with the overall operations. The practices will apply to existing and future facilities and activities, and will, at a minimum, provide for the control of erosion and runoff from access and haul roads, coal handling structures, utility right-of-way easements, and excavations. The permittee will also provide adequate ditching, culverts, sediment traps and ponds, and other structures or procedures necessary to minimize sedimentation in navigable waters. The DOW shall have the right to inspect the sediment control measures being undertaken by the permittee and, in consultation with the U.S. Army Corps of Engineers, direct any additional measures which are necessary to comply with the requirements of this condition. Should this discharge result in sufficient deposition of solids material to create a hazard to anchorage or navigation on any navigable water, such deposits will be removed by the permittee without expense to the United States Government. Further, the time and manner of such removal, as well as the location and manner of its disposal, must receive the prior written approval by the District Engineer of the Corps of Engineers.

In-stream Treatment or Disposal Facilities

This permit does not authorize the construction or use of in-stream treatment or disposal facilities (sediment ponds, hollow fills, valley fills, slurry ponds, etc.). Such authorization is within the jurisdiction of the Corps of Engineers (COE) and is implemented through the Section 404 permitting program of the Clean Water Act. Since the COE is a federal agency, this permitting action requires the issuance of a Section 401 Water Quality Certification by the DNR. The requirements of the 401 Water Quality Certification issued for this operation are hereby incorporated by reference into the KPDES permit as enforceable requirements.

12. PERMIT DURATION

Five (5) years. This facility is in the Big and Little Sandy / Tygarts Basin Management Unit as per the Kentucky Watershed Management Framework.

13. PERMIT INFORMATION

The application, draft permit fact sheet, public notice, comments received and additional information is available by writing the Division of Water at 200 Fair Oaks Lane, Frankfort, Kentucky 40601.

14. REFERENCES AND CITED DOCUMENTS

All material and documents referenced or cited in this fact sheet are parts of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the person listed below.

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15. CONTACT

For further information contact the individual identified on the Public Notice or Heather Dodds at (502) 564-3410 extension 4892, or by e-mail at Heather.Dodds@ky.gov.

14. PUBLIC NOTICE INFORMATION

Please refer to the attached Public Notice for details regarding the procedures for a final permit decision, deadline for comments, and other information required by 401 KAR 5:075, Section 4(2)(e).

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KPDES

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT

PERMIT NO.: KY0107735
AI NO.: 82937

AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

The Elk Horn Coal Company
544 South Lake Drive
Prestonsburg, KY 41653

is authorized to discharge from a facility located at

DNR Permit No.: 836-5355
Frasure Creek Mine
KY 1929 & Neds Fork Road
East McDowell, Floyd County, Kentucky

to receiving waters named

Facility discharges to Frasure Creek at latitude N37-25-29 and longitude W82-42-28, and at latitude N37-25-30 and longitude W82-42-30.

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in PARTS I, II, and III, hereof. The permit consists of this cover sheet, and PART I 13 pages, PART II 1 page, and PART III 3 pages.

This permit shall become effective on Effective Date.

This permit and the authorization to discharge shall expire at midnight,

Date Signed

Sandra L. Gruzesky, Director
Division of Water

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A1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Description of Discharge - Discharges of "acid or ferruginous mine drainage" from "new source" active mining areas, excluding coal preparation plants and coal preparation plant associated areas

During the period beginning on the effective date of this permit and lasting through either Phase I bond release or the term of this permit, the permittee is authorized to discharge from all point source discharges as described in the SCMRA permit

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS (lbs/day)		DISCHARGE LIMITATIONS Other Units (Specify)		MONITORING REQUIREMENTS	
	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report	N/A	N/A	2/Month	Instantaneous
Total Suspended Solids (mg/l)	N/A	N/A	35	70	2/Month	Grab
Total Recoverable Iron (mg/l)	N/A	N/A	3.0	4.0	2/Month	Grab
Total Recoverable Manganese (mg/l)	N/A	N/A	2.0	4.0	2/Month	Grab
Oil & Grease (mg/l)[1]	N/A	N/A	10	15	1/Month	Grab
Acidity (as mg/l $CaCO_3$)[2]	N/A	N/A	Report	Report	1/Month	Grab
Alkalinity (as mg/l $CaCO_3$)[2]	N/A	N/A	Report	Report	1/Month	Grab
Conductivity (µmho/cm)	N/A	N/A	Report	Report	1/Month	Grab

[1]The limits and monitoring for Oil & Grease do not apply if the permittee has developed and implemented a "Best Management Practices" (BMP) plan as required by this permit. The BMP plan shall include a specific section that addresses the handling, storage and disposal of petroleum products and the maintenance procedures for mining equipment.

[2]At all times acidity shall be less than alkalinity.

The pH of the effluent shall not be less than 6.0 standard units or greater than 9.0 standard units and shall be monitored 2/Month by grab sample. These types of discharges shall not cause the pH of the receiving stream to fluctuate more that 1.0 standard unit over a period of 24 hours.

There shall be no discharge of floating solids or visible foam or sheen in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: nearest accessible point prior to discharge to or mixing with the receiving waters or wastestreams from other outfalls.

The abbreviation N/A means Not Applicable.

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A2. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Description of Discharge – Discharges of "acid or ferruginous mine drainage" from "new source" post mining areas (reclamation areas) excluding underground mine drainage

During the period beginning on the effective date of this permit and lasting through either Phase III bond release or the term of this permit, the permittee is authorized to discharge from all point source discharges as described in the SCMRA permit

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS (lbs/day)		Other Units (Specify)		MONITORING REQUIREMENTS	
	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report	N/A	N/A	1/Month	Instantaneous
Settleable Solids (mg/l)[1]	N/A	N/A	N/A	0.5	1/Month	Grab
Oil & Grease (mg/l)[2]	N/A	N/A	10	15	1/Month	Grab
Acidity (as mg/l $CaCO_3$)[3]	N/A	N/A	Report	Report	1/Month	Grab
Alkalinity (as mg/l $CaCO_3$)[3]	N/A	N/A	Report	Report	1/Month	Grab
Conductivity (µmho/cm)	N/A	N/A	Report	Report	1/Month	Grab

[1]The daily maximum limit for Settleable Solids is an "instantaneous maximum" not to be exceeded at any time.

[2]The limits and monitoring for Oil & Grease do not apply if the permittee has developed and implemented a "Best Management Practices" (BMP) plan as required by this permit. The BMP plan shall include a specific section that addresses the handling, storage and disposal of petroleum products and the maintenance procedures for mining equipment.

[3]At all times acidity shall be less than alkalinity.

The pH of the effluent shall not be less than 6.0 standard units or greater than 9.0 standard units and shall be monitored 2/Month by grab sample. These types of discharges shall not cause the pH of the receiving stream to fluctuate more that 1.0 standard unit over a period of 24 hours.

There shall be no discharge of floating solids or visible foam or sheen in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: nearest accessible point prior to discharge to or mixing with the receiving waters or wastestreams from other outfalls.

The abbreviation N/A means Not Applicable.

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A8. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Description of Discharge - Discharges of “acid or ferruginous mine drainage” from “new source” post mining areas (underground mine drainage).

During the period beginning on the effective date of this permit and lasting through either Phase III bond release or the term of this permit, the permittee is authorized to discharge from all point source discharges as described in the SCMRA permit

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS (lbs/day)		Other Units (Specify)		MONITORING REQUIREMENTS	
	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report	N/A	N/A	2/Month	Instantaneous
Total Suspended Solids (mg/l)	N/A	N/A	35	70	2/Month	Grab
Total Recoverable Iron (mg/l)	N/A	N/A	3.0	4.0	2/Month	Grab
Total Recoverable Manganese (mg/l)	N/A	N/A	2.0	4.0	2/Month	Grab
Oil & Grease[1] (mg/l)	N/A	N/A	10	15	1/Month	Grab
Conductivity (µS/cm)	N/A	N/A	Report	Report	1/Month	Grab
Acidity[2] (as mg/l $CaCO_3$)	N/A	N/A	Report	Report	1/Month	Grab
Alkalinity[2] (as mg/l $CaCO_3$)	N/A	N/A	Report	Report	1/Month	Grab

[1]The limits and monitoring for Oil & Grease do not apply if the permittee has developed and implemented a “Best Management Practices” (BMP) plan as required by this permit. The BMP plan shall include a specific section that addresses the handling, storage and disposal of petroleum products and the maintenance procedures for mining equipment.

[2]At all times acidity shall be less than alkalinity.

The pH of the effluent shall not be less than 6.0 standard units or greater than 9.0 standard units and shall be monitored 2/Month by grab sample. These types of discharges shall not cause the pH of the receiving stream to fluctuate more that 1.0 standard unit over a period of 24 hours.

There shall be no discharge of floating solids or visible foam or sheen in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: nearest accessible point prior to discharge to or mixing with the receiving waters or wastestreams from other outfalls.

The abbreviation N/A means Not Applicable.

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B. OTHER REQUIREMENTS

Alkaline Mine Reclassification

Title 40 Chapter I Subpart 434.11 "General Definitions" defines "alkaline mine drainage" as mine drainage, before any treatment, has a pH equal to or greater than 6.0 standard units and a Total Iron concentration of 10 mg/l. As information is unavailable at the time the applicant submits an NOI for coverage under the general permit the default classification for all mine drainage is "acid or ferruginous". Should the permittee have reason to believe the drainage from an operation would be more appropriately classified as "alkaline" the permittee must satisfactorily demonstrate to KDOW that the mine drainage , prior to treatment, has a pH greater than or equal to 6.0 standard units and a Total Recoverable Iron concentration less than 10 mg/l.

This demonstration shall consist of a mine map with the monitoring locations clearly labeled including the latitude and longitude in decimal degrees. There shall be a sufficient number of monitoring locations to adequately characterize any variations within the drainage from all parts of the mining activity. These monitoring locations **CAN NOT COINCIDE** with any sediment structure discharge point as untreated drainage must be collected for the demonstration. At least six (6) months of data to characterize the flow, pH and the Total Recoverable Iron concentration of the influent or untreated effluent shall be collected and submitted as part of this demonstration.

The effect of reclassifying the mine from "acid or ferruginous" to "alkaline" is to remove the effluent limitations and monitoring requirements for total recoverable manganese which constitutes a major modification and necessitates the reopening of the KPDES permit. As this is a general permit there are a number of administrative and logistical issues that preclude the reopening of the general permit to allow for this reclassification. Therefore if the permittee elects to continue the process for reclassification to an alkaline mine then the permittee shall seek an individual permit. To obtain an individual KPDES permit with an alkaline mine classification the permittee shall submit completed Form 1, completed Form C and a copy of the demonstration to KDOW.

Alternate Effluent Limitations - pH

Pursuant to 401 KAR 5:065, Sections 4 and 5 (40 CFR Part 434.62), the permit issuing authority may allow the pH level in the final effluent to exceed 9.0 standard units to a small extent in order that the Manganese limitations may be achieved when the application of neutralization and sedimentation treatment technology results in the inability to comply. This alternate pH limitation shall be granted upon request for a specific discharge, provided the operator submits sufficient documentation, with the Discharge Monitoring Report (DMR), that an effluent pH of greater than 9.0 standard units was required to achieve the Manganese limitation. However, under no circumstances shall the pH exceed 10.0 standard units.

This documentation shall include sample results utilized to determine that additional pH adjustment to between 9.0 and 10.0 standard units was required. This data shall include flows, pH, and total recoverable manganese concentrations. In the event the Cabinet determines this condition to be chronic the permittee shall submit plans for a permanent a solution.

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B. OTHER REQUIREMENTS - continued

Alternate Effluent Limitations - Precipitation

Pursuant to the requirements of 401 KAR 5:065, Section 4(2) (40 CFR Part 434.63), precipitation induced discharges are eligible for alternate effluent limits. The applicable alternate limits are a function of the size of the precipitation event and the type of operation and shall be granted on an event by event basis, provided the operator requests alternate precipitation limitations and provides sufficient proof that the discharge or increase in the discharge was caused by the applicable precipitation event described. This could be in the form of precipitation data, weir flow measurements, dated photographs, or equivalent proof of record. This information shall be submitted with the Discharge Monitoring Report (DMR). The following alternate limitations are available:

(a)(1) The alternate limitations specified in paragraph (a)(2) of this section apply with respect to:

(i) All discharges of alkaline mine drainage except discharges from underground workings of underground mines that are not commingled with other discharges eligible for these alternate limitations;

(ii) All discharges from steep slope areas, (as defined in section 515(d)(4) of the Surface Mining Control and Reclamation Act of 1977, as amended (SMCRA)), and from mountaintop removal operations (conducted pursuant to section 515(c) of SMCRA);

(iii) Discharges from coal preparation plants and preparation plant associated areas (excluding acid or ferruginous mine drainage from coal refuse disposal piles).

(2) 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 of equivalent volume) may comply with the following limitations instead of the otherwise applicable limitations

EFFLUENT LIMITATIONS DURING PRECIPITATION	
POLLUTANT OR POLLUTANT PROPERTY	**EFFLUENT LIMITATIONS**
Settleable Solids	0.5 ml/l maximum not to be exceeded
pH	6.0 to 9.0 at all times

(b) The following alternate limitations apply with respect to acid or ferruginous drainage from coal refuse disposal piles:

Any discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period greater than the 1-year, 24-hour precipitation event, but less than or equal to the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) may comply with the following limitations instead of the otherwise applicable limitations:

EFFLUENT LIMITATIONS DURING PRECIPITATION	
POLLUTANT OR POLLUTANT PROPERTY	**EFFLUENT LIMITATIONS**
Settleable Solids	0.5 ml/l maximum not to be exceeded
pH	6.0 to 9.0 at all times

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B. OTHER REQUIREMENTS - continued

Alternate Effluent Limitations – Precipitation – continued

(c) The following alternate limitations apply with respect to acid or ferruginous mine drainage, except for discharges addressed in paragraphs (a) (mountaintop removal and steep slope areas), (d) (controlled surface mine discharges) and (f) (discharges from underground workings of underground mines) of this section:

(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 of equivalent volume) may comply with the following limitations instead of the otherwise applicable limitations:

EFFLUENT LIMITATIONS DURING PRECIPITATION	
POLLUTANT OR POLLUTANT PROPERTY	**EFFLUENT LIMITATIONS**
Total Recoverable Iron	7.0 mg/l maximum for any 1 day
Settleable Solids	0.5 ml/l maximum not to be exceeded
pH	6.0 to 9.0 at all times

(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) may comply with the following limitations instead of the otherwise applicable limitations:

EFFLUENT LIMITATIONS DURING PRECIPITATION	
POLLUTANT OR POLLUTANT PROPERTY	**EFFLUENT LIMITATIONS**
Settleable Solids	0.5 ml/l maximum not to be exceeded
pH	6.0 to 9.0 at all times

(d)(1) The alternate limitations specified in paragraph (d)(2) of this section apply with respect to all discharges described in paragraphs (a), (b) and (c) of this section and to:

(i) Discharges of acid or ferruginous mine drainage from underground workings of underground mines which are commingled with other discharges eligible for these alternate limitations; and

(ii) Controlled acid or ferruginous surface mine discharges; and

(iii) Discharges from reclamation areas.

(2) 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) may comply with the following limitations instead of the otherwise applicable limitations:

EFFLUENT LIMITATIONS DURING PRECIPITATION	
POLLUTANT OR POLLUTANT PROPERTY	**EFFLUENT LIMITATIONS**
pH	6.0 to 9.0 at all times

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B. OTHER REQUIREMENTS - continued

Alternate Effluent Limitations – Precipitation – continued

(e) The operator shall have the burden of proof that the discharge or increase in the discharge was caused by the applicable precipitation event described in the previous paragraphs. Such proof shall take the form of a daily precipitation log maintained in accordance with the requirements of 401 KAR 5:065, Section 1(10) or local NOAA weather station records or equivalent. For alternate precipitation event limits related to self monitoring this information shall be submitted with the Discharge Monitoring Report at the end of the monthly monitoring period. For compliance samples collected by any representative of the EEC the permittee has 7 calendar days from the date of the mine inspection report to submit proof of a qualifying event has occurred. For all other events the precipitation logs shall be provided upon request to any representative of the EEC.

(f) Discharges of mine drainage from underground workings of underground mines, which are not commingled with discharges eligible for the alternate limitations, shall in no event be eligible for the alternate limitations.

(g) The applicable alternate limits are a function of the size of the precipitation event and the type of operation. These alternate limits shall be granted on an event by event basis, provided the operator requests them and submits sufficient documentation as specified above in paragraph (e) above. Alternate limits are not available for the parameters of Flow, Oil & Grease, Acidity, and Alkalinity.

The table on the following page summarizes these alternate precipitation effluent limitations.

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B. OTHER REQUIREMENTS – continued

TABLE 1 - ALTERNATE PRECIPITATION EVENT EFFLUENT REQUIREMENTS

TYPE OF DISCHARGE	PRECIPITATION EVENT			
	Discharge Caused by Precipitation	1-yr, 24-hr Event	2-yr, 24-hr Event	10-yr, 24-hr Event
Discharges from underground workings of underground mines not commingled including alkaline mines	**NO ALTERNATE LIMITATIONS**	**NO ALTERNATE LIMITATIONS**	**NO ALTERNATE LIMITATIONS**	**NO ALTERNATE LIMITATIONS**
Discharges of dredge return water	**NO ALTERNATE LIMITATIONS**	**NO ALTERNATE LIMITATIONS**	**NO ALTERNATE LIMITATIONS**	**NO ALTERNATE LIMITATIONS**
Discharges from underground workings of underground mines commingled	**NO ALTERNATE LIMITATIONS**	**NO ALTERNATE LIMITATIONS**	**NO ALTERNATE LIMITATIONS**	pH
Controlled surface mine drainage (except steep slope and mountaintop removal)	**NO ALTERNATE LIMITATIONS**	**NO ALTERNATE LIMITATIONS**	**NO ALTERNATE LIMITATIONS**	pH
Non-controlled surface mine drainage (except steep slope and mountaintop removal)	SS, pH, Fe	SS, pH, Fe	SS, pH	pH
Discharges from coal refuse disposal piles	**NO ALTERNATE LIMITATIONS**	SS, pH	SS, pH	pH
Discharges from steep slope and mountaintop removal areas	SS, pH	SS, pH	SS, pH	pH
Discharges from preparation plant associated areas (excluding coal refuse disposal piles)	SS, pH	SS, pH	SS, pH	pH
Alkaline Mine Drainage	SS, pH	SS, pH	SS, pH	pH
Reclamation Areas	SS, pH	SS, pH	SS, pH	pH
The abbreviations Fe and SS mean Total Recoverable Iron and Settleable Solids, respectively.				
The applicable alternate limits are a function of the size of the precipitation event and the type of operation and shall be granted on an event by event basis, provided the operator requests alternate precipitation limitations and provides sufficient proof that the discharge or increase in the discharge was caused by the applicable precipitation event described.				
These alternate limits do not affect the parameters of Flow, Oil & Grease, Acidity, and Alkalinity.				

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B. OTHER REQUIREMENTS - continued

Authorization to Discharge
The permittee is authorized to discharge under the terms of the general permit upon receipt of written notification by the DOW and upon the issuance of a fully effective permanent program permit by DNR.

Benthic Macroinvertebrate Assessment
Within the term of this permit each mining operation authorized by this general permit shall conduct and submit to KDOW a one-time benthic macroinvertebrate assessment immediately downstream of an outfall in each HUC 14 impacted by the mining operation. The assessments shall be performed in accordance with the guidance provided in KDOW Document DOWSOP03003 – Methods for Sampling Benthic Macroinvertebrate Communities in Wadeable Waters March, 2009 and during the appropriate index period. The index period for headwater streams (<5 miles^2 drainage area) is between February and May and for Wadeable streams (>5 miles^2 drainage area) the period is between May and September. Assessments shall not be conducted during periods of excessively high or low flows or within two weeks of scouring. In the case where two or more mining operations are active within the same HUC 14 the permittees may perform a joint assessment. In the case where an assessment had been performed within the last 12 months the permittee may utilize that information to comply with this requirement. Should KDOW determine that additional or follow up assessments are required the permittee shall be given written notification and justification.

Commingling of Wastestreams
Where wastestreams from any facility covered by this permit are combined for treatment or discharge with wastestreams from another facility, the concentration of each pollutant in the combined discharge may not exceed the most stringent limitations for that pollutant applicable to any component wastestream of the discharge. This requirement is consistent with the requirements of 401 KAR 5:065, Sections 4 and 5 (40 CFR Part 434.61).

Department of the Army, Corps of Engineers Condition
The following special condition is applicable to certain coal mining operations, which affect anchorage and navigation of any waters of the United States, which are under the jurisdiction of the Corps of Engineers. The applicability of this condition to specific dischargers will be included in the written notice from the DOW that authorizes discharge under this permit.

The permittee shall undertake erosion control practices which utilize proper sedimentation control measures in order to minimize resultant sedimentation in navigable waters which occur as a result of discharges from both point and non-point sources connected with the overall operations. The practices will apply to existing and future facilities and activities, and will, at a minimum, provide for the control of erosion and runoff from access and haul roads, coal handling structures, utility right-of-way easements, and excavations. The permittee will also provide adequate ditching, culverts, sediment traps and ponds, and other structures or procedures necessary to minimize sedimentation in navigable waters. The DOW shall have the right to inspect the sediment control measures being undertaken by the permittee and, in consultation with the U.S. Army Corps of Engineers, direct any additional measures which are necessary to comply with the requirements of this condition. Should this discharge result in sufficient deposition of solids material to create a hazard to anchorage or navigation on any navigable water, such deposits will be removed by the permittee without expense to the United States Government. Further, the time and manner of such removal, as well as the location and manner of its disposal, must receive the prior written approval by the District Engineer of the Corps of Engineers.

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B. OTHER REQUIREMENTS - continued

In-stream Treatment or Disposal Facilities

This permit does not authorize the construction or use of in-stream treatment or disposal facilities (sediment ponds, hollow fills, valley fills, slurry ponds, etc.) Such authorization is within the jurisdiction of the Corps of Engineers (COE) and is implemented through the Section 404 permitting program of the Clean Water Act. Since the COE is a federal agency, this permitting action requires the issuance of a Section 401 Water Quality Certification by the DNR. The requirements of the 401 Water Quality Certification issued for this operation are hereby incorporated by reference into the KPDES permit as enforceable requirements.

C. SCHEDULE OF COMPLIANCE

The permittees shall attain compliance with all requirements of this permit on the effective date of this permit unless otherwise stated.

See Part IV for implementation and submission requirements related to the Best Management Practices (BMP) Plan.

D. MONITORING AND REPORTING

Samples and measurements taken in accordance with the requirements of PART I pages I-1 through I-8 shall be representative of the volume and nature of the monitored discharge and shall be taken at the following location: at nearest accessible point after final treatment, but prior to actual discharge to or mixing with the receiving waters. For sediment control structures the spillway/discharge pipe of the structure shall be designated as the compliance point unless the permittee has constructed and bonded a discharge channel from the sediment control structure to the receiving water. For discharge channels the compliance point shall be that point along the discharge channel that the permittee and the Cabinet have agreed upon. **SAMPLES ARE NOT TO BE TAKEN FROM THE SEDIMENT STRUCTURE WHEN THERE IS NO DISCHARGE.**

All monitoring points (outfalls) authorized by this permit shall receive a unique identifier consistent with the naming convention utilized by EPA's Permit Compliance System. PCS requires the assignment of a three character name, i.e. 001, 002 thru 999, for each outfall designated on an individual permit. This outfall name is to be included on all Discharge Monitoring Reports (DMRs) and any other reports submitted by the permittee. The permittee shall be responsible for establishing the name for each outfall prior to its activation and maintaining an accurate record of the outfall name, receiving stream and latitude/longitude. The permittee shall provide upon the request of KDOW or the Department for Natural Resources (DNR) a list of outfalls for each currently held permit, both individual and general.

Discharge monitoring results obtained during the previous month shall be summarized for each outfall and reported using only KDOW approved Discharge Monitoring Report (DMR) forms and formats. DMRs for each calendar quarter shall be postmarked no later than the 28th day of the month and submitted to the appropriate Department for Natural Resources Regional Office for your operation.

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E. DEFINITIONS

The terms **"1-year, 2-year, and 10-year, 24-hour precipitation events"** mean the maximum 24-hour precipitation event with a probable recurrence interval of once in one (1), two (2), and ten (10) years, respectively, as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed there from.

The term **"abandoned mine"** means a mine where mining operations have occurred in the past and (1) the applicable reclamation bond or financial assurance has been released or forfeited, or (2) if no reclamation bond or other financial assurance has been posted, no mining operations have occurred for five (5) years or more.

The term **"acid or ferruginous mine drainage"** means mine drainage which, before any treatment, has a pH of less than 6.0 or has a total recoverable iron concentration equal to or greater than 10.0 mg/l.

The term **"active mining area"** means the area, on and beneath land, used or disturbed in activity related to the extraction, removal, or recovery of coal from its natural deposits. This term excludes coal preparation plants, coal preparation plant associated areas, and post-mining areas.

The term **"alkaline mine drainage"** means mine drainage, which before any treatment, has a pH equal to or greater than 6.0 and Total Recoverable Iron Concentration of less than 10.0 mg/l.

The term **“calendar day”** means, for the purpose of this permit, any 24-hour period.

The term **"coal preparation plant"** means a facility where coal is subjected to cleaning, concentrating, or other processing or preparation in order to separate coal from its impurities and then is loaded for transit to a consuming facility.

The term **"coal preparation plant associated areas"** means the coal preparation plant yards, immediate access roads, coal refuse piles, and coal storage piles and facilities.

The term **"coal preparation plant water circuit"** means all pipes, channels, basins, tanks, and all other structures and equipment that convey, contain, treat, or process any water that is used in coal preparation processes within a coal preparation plant.

The term **"coal refuse disposal pile"** means any coal refuse deposited on the earth and intended as permanent disposal or long-term storage (greater than 180 days) of such material, but does not include coal refuse deposited within the active mining area or coal refuse never removed from the active mining area.

The term “**coal remining operation”** means a coal mining operation at a site on which coal mining was previously conducted and where the site has been abandoned or the performance bond has been forfeited.

The term **"controlled surface mine drainage"** means any surface mine drainage that is pumped or siphoned from the active mining area.

The term **“daily maximum concentration”** means the daily determination of concentration as an instantaneous maximum that cannot be exceeded by any sample.

The term **“daily precipitation log”** means a daily record of precipitation levels maintained by the permittee to provide proof that a qualifying event has occurred within the preceding 24 hours. This may take the form of daily readings of local rain gages, National Oceanic and Atmospheric Administration data, etc.

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E. DEFINITIONS - continued

The term **"existing source coal mine"** means a coal mine, which the KYDOW determines is neither a "new source coal mine" nor a "new discharger coal mine."

The term **"expanded operation"** means any amendment or revision of a mining plan, which meets conditions 2, 3, or 5 of the term "major alteration".

The term **"final bond release"** means the time at which the Department for Surface Mining Reclamation and Enforcement returns any remaining reclamation or performance bond based upon its determination that reclamation work (including, in the case of underground mines, mine sealing, and abandonment procedures) and revegetation requirements have been satisfactorily completed.

The term **"grab sample"** means a single influent or effluent portion collected in less than fifteen (15) minutes at the period most representative of the total discharge.

The term **"instantaneous maximum"** means the maximum value not to be exceeded at any time.

The term **"major alteration"** means a coal mine for which the KYDOW determines that a new, altered, or increased discharge of pollutants has occurred after May 29, 1981, in connection with the mine for which the KPDES permit is being considered. In making this determination, the KYDOW shall take into account one (1) or more of the following events: 1) Extraction of a coal seam not previously extracted by that mine; 2) Discharge into a drainage area not previously affected by wastewater discharges from the mine; 3) Extensive new surface disturbance at the mining operation; 4) Construction of a new shaft, slope, or drift; and 5) Such other factors as the Director of the KYDOW deems relevant.

The term **"mine drainage"** means any drainage and any water pumped or siphoned from an active mining area or a post-mining area.

The abbreviation **"ml/l"** means milliliters per liter.

The term **"monthly average concentration"** means the arithmetic average of all sample concentrations collected during a calendar month.

The term **"new discharger coal mine"** means a coal mine: 1) from which there is or may be a new or additional discharge of pollutants at a site at which on August 13, 1979, it had never discharged pollutants; and 2) which has never received a finally effective KPDES or NPDES permit for discharge at that site; and 3) which is not a new source.

The term **"new source coal mine"** means a coal mine (excluding coal preparation plants and coal preparation plant associated areas), including an abandoned mine, which is being re-mined, on which construction is commenced after May 4, 1984; or which is determined by the Director of the KYDOW to constitute a "major alteration."

The term **"phase I reclamation bond release"** means release by the Department for Surface Mining Reclamation and Enforcement of a portion of the performance bond after the following work has been completed: backfilling, re-grading, top soil replacement, drainage control work, including soil preparation, re-grading, seeding, planting, and mulching in accordance with the approved reclamation plan.

The term **"point source"** means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, culvert, tunnel, conduit, well, discrete fissure, container, wet seals, mine adits, seeps, or sumps, from which pollutants are or may be discharged.

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E. DEFINITIONS - continued

The term **"post-mining area"** means: 1) A reclamation area; or 2) The underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release.

The term **"reclamation area"** means the surface area of a coal mine, which has been returned to required contour and on which revegetation (specifically, seeding or planting) work has commenced.

The term **"settleable solids"** is that matter measured by the volumetric method specified in PART I, F of the permit.

The terms **"treatment facility"** and **"treatment system"** mean all structures, which contain, convey, and as necessary, chemically or physically treat coal mine drainage, coal preparation plant process wastewater, or drainage from coal preparation plant associated areas, which remove pollutants regulated by this part from such waters. This includes all pipes, channels, ponds, basins, tanks, and all other equipment serving such structures.

The term **"underground workings of an underground mine"** means the underground workings including shafts, adits, support facilities, etc. of an underground mine, but excludes surface disturbances associated with the underground mine.

F. TEST PROCEDURES

Test procedures for the analysis of pollutants shall conform to all regulations published pursuant to KRS 224 (401 KAR 5:065, Section 1(10)).

Settleable Solids

Test procedures for the determination of settleable solids, as described in c., shall conform to 40 CFR 434.64 as adopted by 401 KAR 5:065, Section 4(2).

Fill an Imhoff cone to the one (1) liter mark with a thoroughly mixed sample. Allow to settle undisturbed for 45 minutes. Gently stir along the inside surface of the cone with a stirring rod. Allow to settle undisturbed for 15 minutes longer. Record the volume of settled material in the cone as milliliters per liter. Where a separation of settleable and floating materials occurs do not include the floating material.

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PART II

STANDARD CONDITIONS FOR KPDES PERMIT

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

It is the responsibility of the permittee to demonstrate compliance with permit parameter limitations by utilization of sufficiently sensitive analytical methods.

The permittee is also advised that all KPDES permit conditions in KPDES Regulation 401 KAR 5:065, Section 1 will apply to all discharges authorized by this permit.

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PART III

BEST MANAGEMENT PRACTICES

SECTION A. GENERAL CONDITIONS

1. Applicability

These conditions apply to all permittees who use, manufacture, store, handle, or discharge any pollutant listed as: (1) toxic under Section 307(a)(1) of the Clean Water Act; (2) oil, as defined in Section 311(a)(1) of the Act; (3) any pollutant listed as hazardous under Section 311 of the Act; or (4) is defined as a pollutant pursuant to KRS 224.01-010(35) and who have ancillary manufacturing operations which could result in (1) the release of a hazardous substance, pollutant, or contaminant, or (2) an environmental emergency, as defined in KRS 224.01-400, as amended, or any regulation promulgated pursuant thereto (hereinafter, the "BMP pollutants"). These operations include material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas.

2. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) plan consistent with 401 KAR 5:065, Section 2(10) pursuant to KRS 224.70-110, which prevents or minimizes the potential for the release of "BMP pollutants" from ancillary activities through plant site runoff; spillage or leaks, sludge or waste disposal; or drainage from raw material storage. A Best Management Practices (BMP) plan will be prepared by the permittee unless the permittee can demonstrate through the submission of a BMP outline that the elements and intent of the BMP have been fulfilled through the use of existing plans such as the Spill Prevention Control and Countermeasure (SPCC) plans, contingency plans, and other applicable documents.

3. Implementation

If this is the first time for the BMP requirement, then the plan shall be developed within 90 days of the effective date of the permit. Implementation shall be within 180 days of that submission. For permit renewals the plan in effect at the time of permit reissuance shall remain in effect. Modifications to the plan as a result of ineffectiveness or plan changes to the facility shall be submitted to the Division of Water and implemented as soon as possible.

4. General Requirements

The BMP plan shall:

a. Be documented in narrative form, and shall include any necessary plot plans, drawings, or maps.

b. Establish specific objectives for the control of toxic and hazardous pollutants.

(1) Each facility component or system shall be examined for its potential for causing a release of "BMP pollutants" due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.

(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances which could result in a release of "BMP pollutants," the plan should include a prediction of the direction, rate of flow, and total quantity of the pollutants which could be released from the facility as result of each condition or circumstance.

c. Establish specific Best Management Practices to meet the objectives identified under paragraph b of this section, addressing each component or system capable of causing a release of "BMP pollutants."

d. Include any special conditions established in part b of this section.

e. Be reviewed by plant engineering staff and the plant manager.

5. Specific Requirements

The plan shall be consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document," and shall include the following baseline BMPs as a minimum.

a. BMP Committee
b. Reporting of BMP Incidents
c. Risk Identification and Assessment
d. Employee Training
e. Inspections and Records
f. Preventive Maintenance
g. Good Housekeeping
h. Materials Compatibility
i. Security
j. Materials Inventory

6. SPCC Plans

The BMP plan may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR Part 151, and may incorporate any part of such plans into the BMP plan by reference.

7. Hazardous Waste Management

The permittee shall assure the proper management of solid and hazardous waste in accordance with the regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1978 (RCRA) (40 U.S.C. 6901 et seq.) Management practices required under RCRA regulations shall be referenced in the BMP plan.

8. Documentation

The permittee shall maintain a description of the BMP plan at the facility and shall make the plan available upon request to EEC personnel. Initial copies and modifications thereof shall be sent to the following addresses when required by Section 3:

Division of Water
Surface Water Permits Branch
Permit Support Section
200 Fair Oaks Lane
Frankfort, Kentucky 40601

9. BMP Plan Modification

The permittee shall amend the BMP plan whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in the release of "BMP pollutants."

10. Modification for Ineffectiveness

If the BMP plan proves to be ineffective in achieving the general objective of preventing the release of "BMP pollutants," then the specific objectives and requirements under paragraphs b and c of Section 4, the permit, and/or the BMP plan shall be subject to modification to incorporate revised BMP requirements. If at any time following the issuance of this permit the BMP plan is found to be inadequate pursuant to a state or federal site inspection or plan review, the plan shall be modified to incorporate such changes necessary to resolve the concerns.

SECTION B. SPECIFIC CONDITIONS

The following items may be incorporated into the BMP plan:

Development and implementation of Best Management Practices to control contaminated runoff from haul roads, exploration sites, access roads, etc. Implementation of such practices in lieu of monitoring and complying with effluent limits for these point sources must be approved by the KDOW`.

The Groundwater Protection Plan as required by 401 KAR 5:037

The conditions of any 401 Water Quality Certification granted to the operation.