

SECTION 3

REPORTING OF BMP INCIDENTS

East Bend Station takes a proactive approach to prevention of spills. The station follows its “Spill Prevention Control and Countermeasure Plan”. This procedure was written specifically to cover potential spills to the Ohio River. However, it is utilized to cover all spills at the station. It also includes information to make any required outside notification (ex. Coast Guard for spills to Ohio River).

The “Spill Prevention Control and Countermeasure Plan” is kept at the station. The plan includes a list of resources available to the plant to deal with a spill. These include resources available on site and leased services that can be called upon when required. The procedure includes a monthly inspection of the plant’s main storm water outfall (014), by the station’s operating group. Other locations checked are the Fuel Oil Tanks, the Dike around Fuel Oil Tank, the Fuel Oil Tank dike drain discharge manhole, the Turbine Oil Tanks, the Turbine Oil Room Sump, the Boiler Room Oil Separator, and the Ammonia Storage area, Vaporizers, and associated piping.

This regular inspection facilitates addressing concerns before they result in discharges to our storm water drains. Problems are handled while they are still contained prior to discharge. Table 3-1 lists some spill scenarios and response procedures for these.

TABLE 3-1 EXAMPLE SPILL RESPONSE PROCEDURES

Materials	Example Spill	Response
<u>Liquids</u> Examples: Di-ethylene glycol, Sodium Hydroxide, Sulfuric Acid, Betz Correshield MD 4100, Betz Spectrus CT1300, CT 1103 or NX114, Hydrazine, Emulsified Sulfur, Scrubber Slurry mixture, Dubois Confidence 10, sodium sulfate	Leak, Ruptured Tanker Truck, Ruptured Pipe, Overfill Tank, ruptured drum	1) Observer shall immediately begin notification procedures as described in the "Notification Procedures" section of the SPCC plan. 2) Trained personnel wearing appropriate safety equipment shall contain spill using sorbent materials and proper containment procedures. 3) Trained personnel wearing appropriate safety equipment shall begin clean-up and disposal procedures. 4) If there is an off-site discharge, notify ES immediately so that EPA can be contacted.
<u>Fibers</u> Asbestos	Piping insulation damaged by moving equipment	1) Notify Safety Officer immediately. 2) Safety Officer will ensure that caution tape is installed in the area. 3) Outside contractor notified to patch or remove asbestos. 4) If there is an off-site discharge, notify ES immediately so that EPA can be contacted.
<u>Gases</u> Nitrogen, Hydrogen, Carbon dioxide,	Ruptured tank	1) Observer shall immediately evacuate area and begin notification procedures as described in the "Notification Procedures" section of the SPCC plan. 2) Trained personnel wearing appropriate safety equipment shall immediately begin testing the area using an analyzer until the area is safe to resume working. 3) If there is an off-site discharge, notify ES immediately so that EPA can be contacted.
<u>Solid</u> Coal Fly ash	Ruptured silo	1) Observer shall immediately evacuate area and begin notification procedures as described in the "Notification Procedures" section of the SPCC plan. 2) Trained personnel wearing appropriate safety equipment shall immediately begin testing the area using an analyzer until the area is safe to resume working. 3) Contained fly ash will be disposed of through normal landfill procedures. 4) If there is an off-site discharge, notify ES immediately so that EPA can be contacted.
<u>Liquid</u> #2 Fuel Oil, Transformer Oil, used oil	Leak, Ruptured Tanker Truck, Ruptured Pipe, Overfilled Tank, leaking or ruptured drum	1) Observer shall shut off oil pumping equipment to the tank and begin checking dike drains to verify that they are closed and providing containment. 2) Observer shall begin notification procedures as described in the "Notification Procedures" section of the SPCC plan. 3) All areas where the oil has reached the electric motors should be de-energized. 4) Facility personnel or an Oil Response Contractor will be required to remove standing oil into a suitable oil drum or container. 5) If there is an off-site discharge, notify ES immediately so that EPA can be contacted.
<u>Solids</u> Tri-sodium phosphate, Di-sodium Phosphate, soda ash, HTH powder	Dumped Bags, Dumped Buckets, Ruptured Tank	1) Observer shall immediately begin notification procedures as described in the "Notification Procedures" section of this section of the SPCC plan. 2) Trained personnel wearing appropriate safety equipment shall immediately begin containment. 3) Trained personnel wearing appropriate safety equipment shall begin clean-up and disposal procedures. 4) If there is an off-site discharge, notify ES immediately so that EPA can be contacted.
<u>Liquids</u> Ash pond water	Break in temporary discharge line	1) Observer shall immediately notify the Control Room. 2) Immediately discontinue pumping into the discharge line 3) If there is a water release to the river, notify ES immediately so that KDEP can be contacted.

SECTION 4
MATERIALS COMPATIBILITY

Good engineering practices are used on the storage of materials at East Bend. The plant consults relevant and applicable industry standards when designing and operating containers, piping, and pumps. Small containers of flammable liquids, caustics and acids are stored in appropriate protective cabinets. Lab personnel work with storeroom and other plant personnel to make every effort to ensure materials are stored safely away from incompatible materials. Safe storage of materials will be one of the areas looked at during each yearly comprehensive site compliance evaluation.

SECTION 5 GOOD HOUSEKEEPING

5.1 General Housekeeping

East Bend Station staff ensures that good housekeeping practices are promoted and utilized on site. Housekeeping is the responsibility of all station employees to keep their area clean and dispose of waste in a proper manner. The station Facilities Services department which currently consists of four contract employees, maintain both the inside and outside areas of the site. Weed eating and trimming on the riverbank and around the discharges is done as needed. Garbage cans inside of the buildings are emptied daily while outside garbage is picked up and cans are emptied on an as needed basis. Contractors empty the dumpsters on site as they are filled. The station Production Department is responsible for cleaning the unit weekly and ensuring all walkways and passages are easily accessible. Coal spills are swept by the Material Services (coal yard) personnel as needed. This includes an annual PM to clean the riverbank and under the conveyors to take care of any spilled coal from them. Laboratory personnel monitor hazardous waste quantities so that the materials can be analyzed and properly removed from the property. These drums are stored in the Hazardous Waste area until the material is removed. It is the responsibility of each area that changes oil out of equipment to collect the oil in a properly labeled drum and transfer the used oil to the storeroom used oil area for disposal. When a sufficient amount of used oil collects in the area the storeroom personnel contact a used oil recycling vendor to pump out the drums. The storeroom personnel maintain a file of all used oil shipments.

Member of Station Management tour the plant regularly to ensure orderly conditions on site. When an unclean and unsafe situation is observed the appropriate section is notified and cleanup is completed within a reasonable amount of time. The current schedule calls for monthly Environmental/Safety walk downs of different areas of the plant. These walk downs are done at the main plant, FGD system, coal yard, WSP area, warehouses, cooling towers, and unloading areas. The Environmental Coordinator and the Safety Coordinator, and one manager (this rotates through the 5 managers), attend the monthly inspections.

5.2 Station Construction Activities

Periodically, as business and operating needs change, construction activities are necessary. This may create a need for disturbance of vegetated areas of the plant property. The department, which is responsible for the construction activity is also responsible for maintenance of the site. House-

keeping and soil maintenance activities (such as silt fence) are required to maintain storm water that is free of contaminants. When large construction projects take place on the site, such as construction of the new landfill, an independent SWPPP including drawings, will be developed and attached as an appendix to this document.

SECTION 6 PREVENTATIVE MAINTENANCE

The preventative maintenance (PM) program involves inspection and testing of plant equipment and systems to uncover conditions which could cause breakdown or failures with resultant discharge of chemicals to receiving waters. The PM plan for storm water pollution prevention will consist of inspections of all equipment that could potentially pollute the storm water drains and inspection of the outfalls.

The Production Team walks down the site daily; personnel are required to inspect for spots or puddles of chemicals, deterioration or corrosion of equipment and tanks, and leaks in the equipment areas. Production personnel will also be instructed to visually examine the pipes, tanks, and containment areas for malfunctions.

The main plant storm water outfall at East Bend Station is inspected weekly as part of the SPCC inspections. At the time of the visual inspection, production personnel document all work needed to be completed to comply with preventative maintenance requirements.

The station laboratory inspects the outfalls during sampling events. The lab also inspects the outfalls monthly, in addition to the sampling events. During these informal inspections, the station lab documents any of the following: any garbage requiring removal from the area, bushes and weeds around the drains that need trimming, and any obstructions removed from discharge pipes.

Any issues observed during the previously stated inspections will be immediately reported to a Supervisor, who is responsible for writing a work order to ensure the problem is corrected.

Periodic inspections of the landfill are performed by Environmental Services to identify potential sources of leakage to storm water. Any problems detected in the inspection, are reported to the CCP System Owner to be corrected.

Immediately prior to the annual BMP3 committee meeting an inspection of the entire plant site is performed and areas of concern are documented for discussion/action plan development at the meeting (see Section 7.2 for more information on this inspection). Responsibility for follow up on each action is also assigned at that time. Additional meetings are scheduled as necessary until completion of any action items developed at the annual meeting.

SECTION 7 INSPECTIONS AND RECORDS

7.1 Inspections

Quarterly: There will be a quarterly inspection of the station's main storm water outfall (014) as part of the sampling process, by the station laboratory.

Semi-annual: Station laboratory employees in conjunction with semi-annual sampling events will perform inspections of the remaining storm water outfalls (including Outfall 017). Each inspection will consist of a thorough examination of all tank piping and discharges.

Annual: In addition to these inspections, the station will conduct annual comprehensive site compliance evaluations. All outfalls are examined at this inspection (see section 7.2).

Additional inspections for the Ash basin Dewatering, Ash Removal and Repurposing will occur.

Daily Inspections (by pump operator): The dewatering process will be inspected as outlined below. A record of the inspection will be documented in the operator logs.

- (1) The pump operator will record the flow rate, fuel level, and basin height.
- (2) Operators will also observe the following:
 - (a) pump, intake and discharge hoses;
 - (b) Pump hoses and connections;
 - (c) Pump operation ;
 - (d) Intake hose and floating weir;
 - (e) Secondary containment and erosion controls, if installed.

The site CCP Environmental Field Coordinator (or designee) will also visually observe the discharge at the outfall, periodically during the dewatering operation. This will be done in coordination with the station lab supervisor/lab technicians.

7.2 Comprehensive Site Compliance Evaluation

The purpose of the comprehensive site compliance evaluation is to evaluate the overall effectiveness of the Best Management Practices Plan. Specifically, the site compliance evaluation will allow the inspector to: 1) verify the accuracy of the potential pollutant sources listed in the plan, 2) determine if the drainage map is accurate or needs to be updated to reflect current conditions, 3) verify that the BMPs listed in the plan are properly identified, in place and working,

and 4) identify areas where new controls (i.e. BMPs) are needed so they may be incorporated into the plan.

The Environmental Coordinator, the CCP Permitting and Compliance Specialist, and/or one or more lab technicians will conduct the annual comprehensive site compliance evaluations. These individuals are knowledgeable of all facility industrial operations and BMP3 goals and requirements. The results of this inspection will be reported to plant management, who has the authority to implement recommendations made by the Inspection Team.

The activities planned for the annual comprehensive site compliance evaluation include the following:

1. Inspect storm water drainage areas for evidence of pollutants entering the drainage system.
2. Evaluate the effectiveness of measures to reduce pollutant loading and whether additional measures are needed. This includes a review of all monitoring data from outfalls 014 & 017 for the previous year.
3. Observe structural measures, sediment controls, and other storm water BMPs to ensure proper operation.
4. Inspect any equipment needed to implement the plan, such as spill response equipment.
5. Update the plan as needed.
6. Implement any necessary changes in a timely manner.
7. Prepare a report summarizing inspection results and follow up action, the date of inspection and personnel who conducted the inspection.
8. Identify any incidents of noncompliance or state that the facility is in compliance with the plan.
9. All incidents of noncompliance must be documented in the inspection report. Where there are no incidents of noncompliance, the inspection report must contain a statement that the facility is in compliance with the plan.

Annual Compliance inspection reports will be retained in Appendix C.

7.3 Record Keeping

Any issues found in conjunction with the Preventative Maintenance (PM), including the weekly SPCC inspections, plan can be found through the station computerized maintenance scheduling system (MAXIMO). Records from the Quarterly and Semi-Annual inspections will be kept in the

station laboratory. Records from the Annual inspection are kept in Appendix C of this plan. Records of the Weekly E&SC inspections are kept by the CCP System Owner with the *East Bend Station Landfill Cell 1 Construction Storm water Pollution Prevention Plan*.

The Environmental Coordinator and Environmental Services keep a file of all records of reported spills at East Bend Station. Reporting Procedures are located in the station's SPCC plan under "Notification Procedures". This procedure specifies spill-reporting measures that are to be taken as emergency response to a spill at East Bend Station.

Records are kept for a minimum of three years.

SECTION 8
SECURITY

Security is maintained at the station to ensure that only authorized personnel have access to the plant. The perimeter of the plant is fenced or posted. A security guard on all three shifts staffs the main plant entrance. Station personnel are required to enter the plant through a pass-activated gate for security purposes and for emergency accountability. Anyone who wants access to the plant must first stop at the guard house and inform the guard who their station liaison is. At that point the guard calls the liaison to approve/deny access, this includes all outside visitors and contractors.

SECTION 9 EMPLOYEE TRAINING

9.1 Employee Training

With the development of this Best Management Practices plan, Duke Energy will continue training programs designed to train all non-administrative employees on the contents and goal of the plan. Topics, such as, spill response, good housekeeping, and material management practices will be included in the training program. Completed records for training will be kept in “My Training” on the Duke Portal for a minimum of three years.

All personnel will receive a minimum of introductory training on spill prevention and handling. The emphasis of all of these training classes will be on the prevention of spills. Station personnel must also annually take computer based training entitled “Storm water Pollution Plan.” This training contains the following topics:

- SWPPP
 - Pollutants
 - Regulations
 - Water Quality
 - Prevention
- What you can do
 - Basic Steps
- Site Information
 - Overview
 - Completion

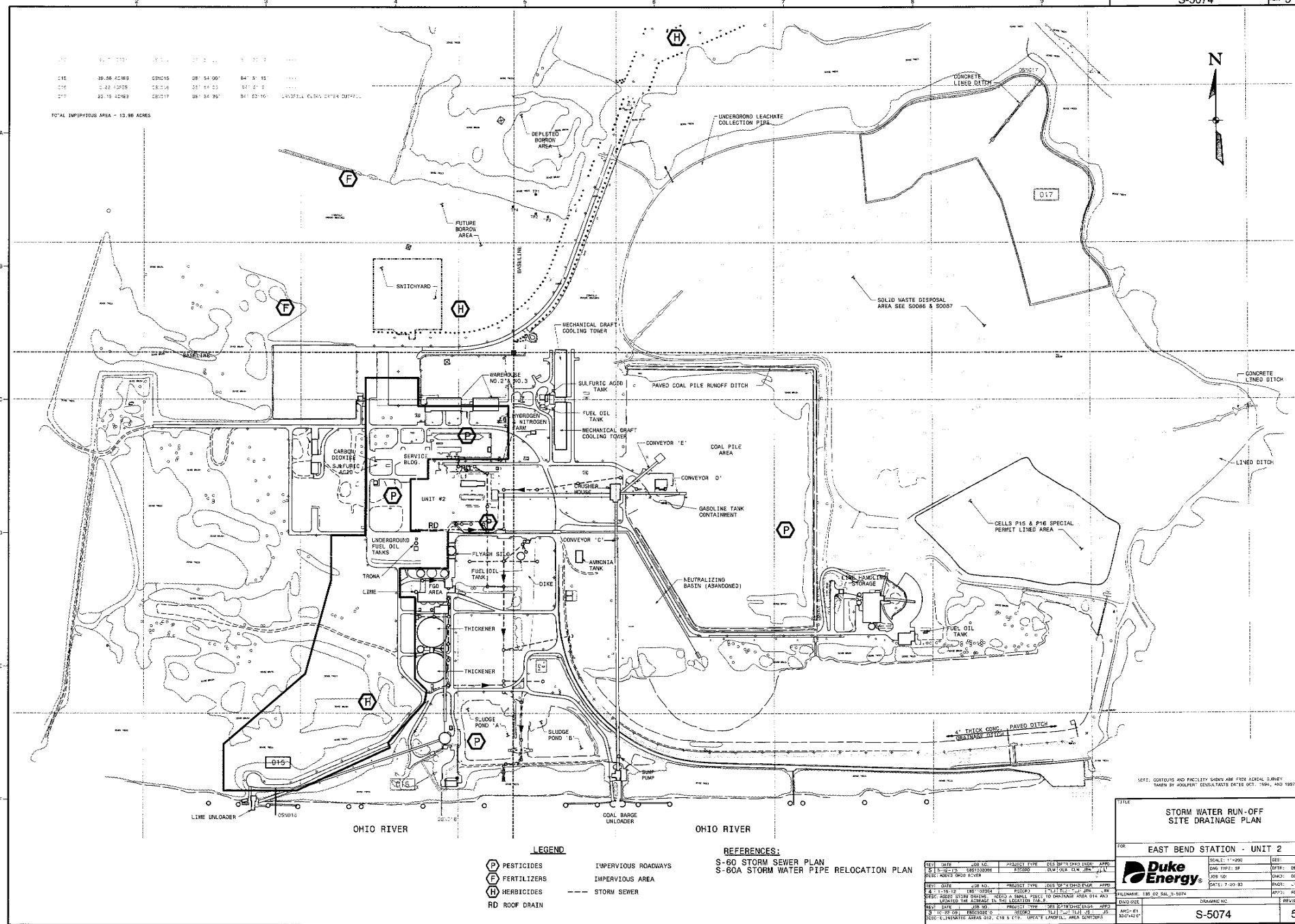
9.2 Contract Employee Training

The station hires contract employees for various jobs at the station, especially during times of unit outages and new construction projects. When contract employees are brought to work on the plant property, for the first time, they are required to attend an orientation training that includes discussions of safety and environmental policies at the station.

**EAST BEND BEST MANAGEMENT PRACTICES/POLLUTION PREVENTION PLAN
APPENDIX**

- A East Bend Storm water Map
- B BMP3 Contact List Not applicable to Cell 2, not included herein
- ~~C Annual Compliance Inspection Forms/ Annual BMP3 committee meeting minutes~~
- D Plant water balance diagram Not applicable to Cell 2, not included herein
- ~~E East Bend Station Landfill Cell 1 Construction Storm water Pollution Prevention Plan~~
- ~~F East Bend Ash basin Dewatering, Ash Removal and Repurposing Plan~~ Not applicable to Cell 2, not included herein

APPENDIX A: EAST BEND STORMWATER MAP



112	64.7111	38° 54' 00"	84° 3' 13"
116	39.86 ACRES	38° 54' 00"	84° 3' 13"
117	22.19 ACRES	38° 54' 00"	84° 3' 13"

TOTAL IMPERVIOUS AREA = 13.96 ACRES

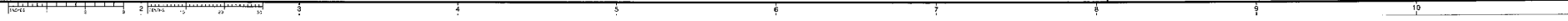
- LEGEND**
- (P) PESTICIDES
 - (F) FERTILIZERS
 - (H) HERBICIDES
 - RD ROOF DRAIN
 - IMPERVIOUS ROADWAYS
 - IMPERVIOUS AREA
 - STORM SEWER

- REFERENCES:**
- S-80 STORM SEWER PLAN
 - S-60A STORM WATER PIPE RELOCATION PLAN

NOTE: CONTIGUOUS AND FACILITY SHOW ARE FROM AERIAL SURVEY TAKEN BY JOSEPH P. CENSA/TACTICS ENTER. OCT. 1994, AND 1997.

TITLE		STORM WATER RUN-OFF SITE DRAINAGE PLAN	
FOR		EAST BEND STATION - UNIT 2	
DATE	JOB NO.	PROJECT TYPE	DESIGN/CONTRACT/ISSUE
12/1/97	1000000000	STORM	DESIGN/CONTRACT/ISSUE
DATE	JOB NO.	PROJECT TYPE	DESIGN/CONTRACT/ISSUE
12/1/97	1000000000	STORM	DESIGN/CONTRACT/ISSUE
NOTE: STORM SEWER PLAN, SEE S-80A STORM WATER PIPE RELOCATION PLAN AND S-60A STORM WATER PIPE RELOCATION PLAN FOR ADDITIONAL INFORMATION.			
DATE	JOB NO.	PROJECT TYPE	DESIGN/CONTRACT/ISSUE
12/1/97	1000000000	STORM	DESIGN/CONTRACT/ISSUE
NOTE: CONTIGUOUS AREAS 012, 018 & 019, UREA E LAMP/LAL, AREA 010/011/012			
FILE NAME		S-5074	
DRAWING NO.		5	

Duke Energy



S-5074 Rev. 5

APPENDIX B: BMP3 CONTACT LIST

Job Title	Name	Phone (Work / Cell)
Site Environmental Field Professional	Craig Daniels	513 467-4833 / 704 467-7111
CCP Environmental Field Professional	Jonnie Braswell	513 467-4672/ 704 998-8253
Station Manager	Gary Cook	513 467-4840 / 513 218-3017
Production Manager	Mike Boots	513 467-4646/ 513 490-5760
CCP Environmental Permitting and Compliance Specialist	Rhonda Herzog	513 287-3424 / 513 543-0249
Laboratory Technicians	Julie Gripshover	513 467-4849
	Tony Holtgreffe	513 467-4848
	Edgar J. Haynes	513 467-4820
	Kim Peddenpohl (Lab Supervisor)	513 467-4635/513 375-9052

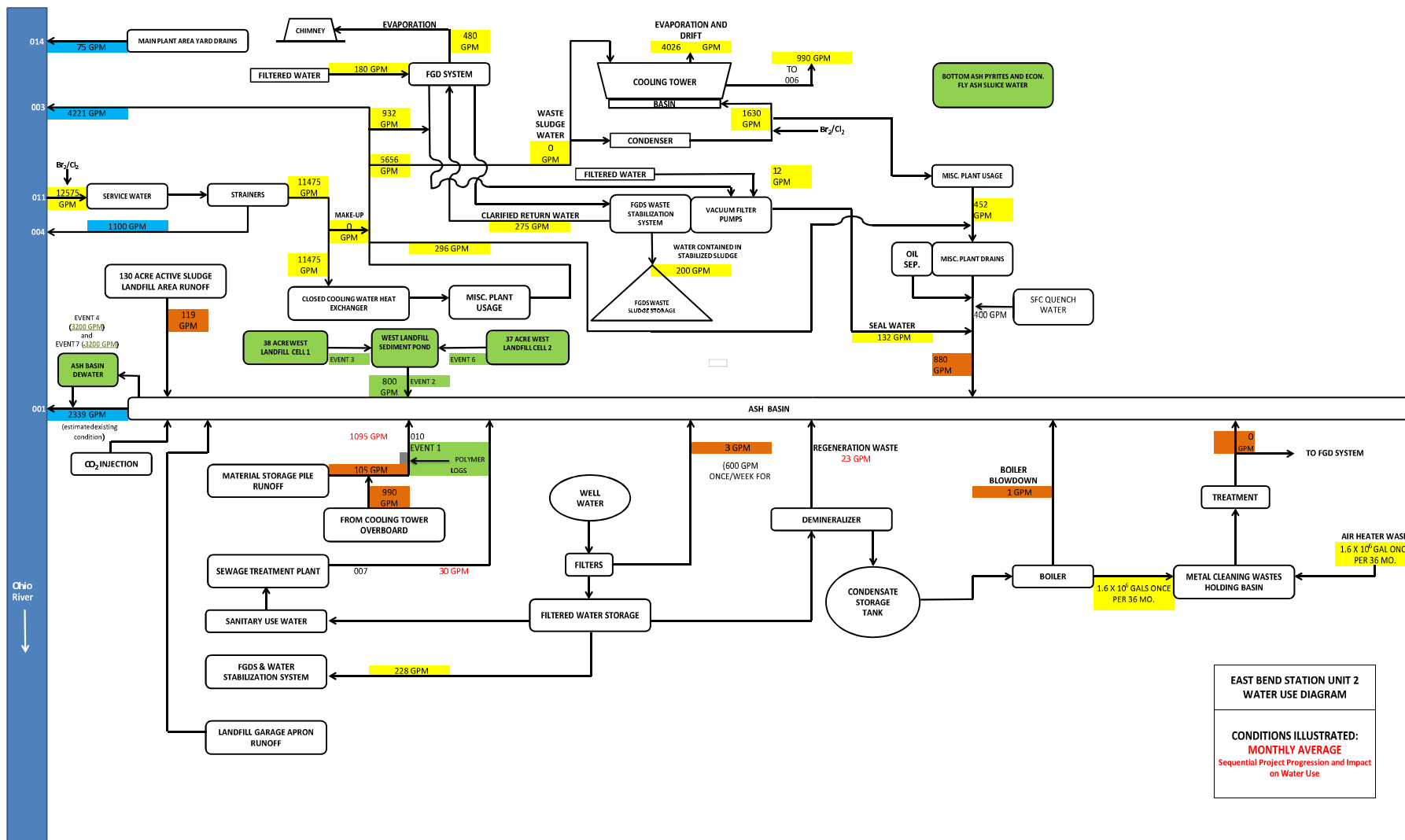
APPENDIX D: PLANT WATER BALANCE DIAGRAM

AI 176
KY0040444
Duke Energy East Bend Generating Station
Outfall 001 Modifications
(Sequential Project Progression and Impact on Water Use Diagram)

Event	Timeframe (estimated)	System Change	Monthly Average			Monthly Maximum		
			Effective Change (in discharge flows)	Resulting Discharge		Effective Change (in discharge flows)	Resulting Discharge	Discharge
				GPM	MGD			
	November 1, 2014	Existing Conditions (from current permit)	0	2339	3.37	0	5492	7.91
1	January 27, 2017	Approved to use Applied Polymer Systems, 706B Floc Logs at Outfall 010 discharge to Ash Basin.	0	2339	3.37	0	5492	7.91
2	April 2017	West Landfill Sediment Pond Discharge to Ash Basin (approval letter received 2-28-2017)	484	2823	4.07	800	6292	9.06
3	July 2017	Start placing waste in West Landfill (38 Acre) Cell 1	0	2823	4.07	800	7092	10.21
4	April 2017 - March 2019	Temporary dewatering of Ash Basin (conditional approval received from KDEP 10-17-2016)	3200	6023	8.67	3200	9492	13.67
5	March 2018	Permanently cease Bottom Ash Sluice to Ash Basin	-188	5835	8.40	-396	9096	13.10
6	2018 - 2019	Construct new (acre) West Landfill Cell 2 and place in service	0	5835	8.40	800	9896	14.25
7	March 2019 - October 2019	Dewatering Complete. Process water through West Retention Basin, pumped to Outfall 001	-3200	2635	3.79	-3200	5896	8.49

*Attachments contain more information about the System Changes (events)

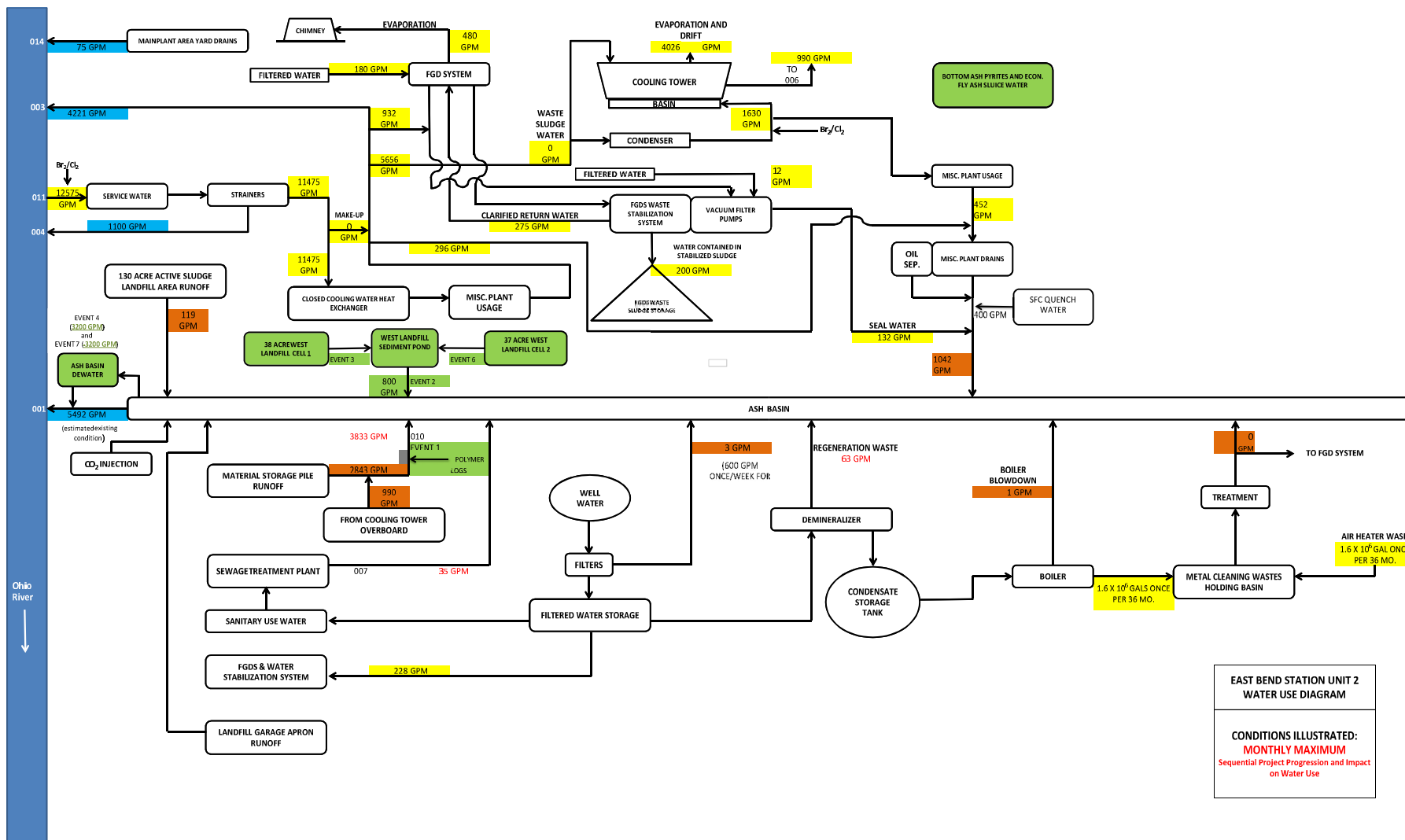
*Effective flow changes are estimates based on degin data available. The actual flows will be measured and the entire water balance diagram will be updated with the next KPDES permit renewal in 2019.



Legend:
█ = flow leaving EBS from outfalls
█ = flow entering and circulating EBS system
█ = flow going into Ash Basin
█ = modification to flow based on Events

**EAST BEND STATION UNIT 2
WATER USE DIAGRAM**

**CONDITIONS ILLUSTRATED:
MONTHLY AVERAGE**
 Sequential Project Progression and Impact
 on Water Use



Legend:
█ = flow leaving EBS from outfalls
█ = flow entering and circulating EBS system
█ = flow going into Ash Basin
█ = modification to flow based on Events

**EAST BEND STATION UNIT 2
WATER USE DIAGRAM**

**CONDITIONS ILLUSTRATED:
MONTHLY MAXIMUM**
 Sequential Project Progression and Impact
 on Water Use

APPENDIX 5

LANDFILL PERMIT

EAST BEND STATION

WEST LANDFILL



Kentucky Energy and Environment Cabinet
Department for Environmental Protection
Division of Waste Management

PERMIT

Facility: **Duke Energy East Bend Station Special Waste Disposal Facility**
6293 Beaver Rd
Union, KY 41091

Permittee: **Duke Energy**
139 E 4th St Rm EM740
Cincinnati, OH 45202

Agency Interest: **Duke Energy KY East Bend**
6293 Beaver Rd
Union, KY 41091

The Division has issued the permit under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. This permitted activity or activities are subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses or approvals required by this Division or other state and local agencies.

No deviation from the plans and specifications submitted with your application or any condition specified herein is allowed, unless authorized in writing from the Division. Violation of the terms and conditions specified herein may render this permit null and void. All rights of inspection by representatives of the Division are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee.

Agency Interest ID #: 176
Solid Waste Permit #: SW00800006
County: Boone

Permitted Activities:

Subject Item	Activity	Type	Status
ACTV004	Special Waste Landfill-Coal/00800006	Construction/Operation	Active
ACTV006	Special Waste Landfill-Coal/00800006	Construction/Operation	Active
ACTV008	Coal Combustion Residuals Surface Impoundment/00800006	Registered Permit by Rule	Active

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

Acreage Summary:

Waste Disposal Area (in Acres):

Activity	Disposal Area
Coal Combustion Residuals Surface Impoundment	53.40
Special Waste Landfill-Coal	162.00
Special Waste Landfill-Coal	203.70
Total Disposal Area	419.10
Total Permitted Area	470.40

Cost Estimate Summary:

Coverage Type	Cost Estimate	Effective	Comments
Closure	\$5,896,690.00	08/18/2016	Additional information can be found under Facility Information and/or Conditions
Post-Closure	\$1,154,833.00	08/18/2016	Additional information can be found under Facility Information and/or Conditions

Financial Assurance Summary:

The owner or operator shall maintain the following financial assurance approved by the Division in compliance with KRS Chapter 224.40-650, KRS Chapter 224.50-862, 401 KAR 45:080, and 401 KAR 48:310:

Instrument Type	Instrument Number	Amount	Date Received	Comments
Surety Bond	B8087915	\$10,000.00	05/17/1984	
Corporate Financial Test	0	\$2,700,892.00	07/14/2017	
Corporate Financial Test	1	\$4,427,734.00	07/14/2017	

First Operational Permit Effective Date: 07/16/1982 -- ACTV0004, Inert Landfill Activity

Permit Effective Date: 07/16/1992

Permit Expiration Date: Life of Facility

Permit issued: 09/08/2017



**Danny Anderson, P.E.
Manager, Solid Waste Branch**

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

Permit Conditions:

Facility Information and/or Conditions

The closure cost estimate for ACTV0004 (East Landfill) is \$2,088,311.00 and the post-closure estimate is \$579,317.00. This estimate was approved on August 18, 2016 under APE20160004.

The closure cost estimate for ACTV0006 (West Landfill) is \$3,808,379.00 and the post-closure estimate is \$575,516.00. This estimate was approved under APE20070004 and updated under APE20160004.

Subject Items

ACTV0004 - Special Waste Landfill-Coal

Standard Requirements:

1. General: The owner or operator of a special waste facility shall comply with KRS Chapter 224 and 401 KAR Chapters 30, 40 and 45 for the construction and operation of special waste facilities. [KRS 224.50-760]
2. General: For construction and operation of the special waste landfill, the owner or operator shall comply with KRS Chapter 224.50-760, 401 KAR 45:030, 45:110 and the approved permit application(s). [401 KAR 45:110]
3. General: The owner or operator may only accept waste at the special waste landfill from the sources which are approved per 401 KAR 45:020, Section 2(1)(a), 45:030, Section 8(1)(a), and 45:110. [401 KAR 45:110]

Variances, Alternate Specifications and Special Conditions:

1. Wastestreams: The permittee may accept fly ash from the Zimmer Station Facility, Clermont Co., Moscow, Ohio. [401 KAR 45:110 Section 3(7)]
2. Wastestreams: The permittee may accept fly ash from the Miller Brewery Facility, Butler Co., Trenton, Ohio. [401 KAR 45:110 Section 3(7)]
3. Wastestreams: The permittee may accept special waste streams as described in the approved plans and applications from the East Bend Facility, Boone Co., Rabbit Hash, Kentucky. [401 KAR 45:110 Section 3(7)]
4. Wastestreams: The permittee may accept fly ash and dry FGD Waste from the City of Hamilton, Butler Co., Ohio. [401 KAR 45:110 Section 3(7)]
5. Wastestreams: The permittee may accept fly ash, bottom ash, and plastic for truck lining from the Miami Fort facility in Hamilton Co., North Bend, Ohio. [401 KAR 45:110 Section 3(7)]
6. Wastestreams: The permittee may accept gypsum from the Killen Station, Adams Co., Wrightsville, Ohio. [401 KAR 45:110 Section 3(7)]
7. Wastestreams: The Permittee may accept fly ash from the Jefferson Smurfit Facility, Butler Co., Middletown, Ohio. [401 KAR 45:110 Section 3(7)]

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

8. Wastestreams: The permittee may accept fly ash from Duke Energy Generation Services of St. Bernard, LLC, Butler Co., Cincinnati, Ohio. [401 KAR 45:110 Section 3(7)]
9. Wastestreams: The permittee may accept fly ash from the Spurlock Station, Mason Co., Maysville, Kentucky. The permittee may accept up to 60,000 tons annually, and additional information may be found in the approved application, APE20120005. [401 KAR 45:110 Section 3(7)]
10. Wastestreams: The permittee may accept fly ash from the Ghent Generating Station, Carroll Co., Ghent, Kentucky. The permittee may accept up to 100,000 tons annually and additional information may be found in the approved application, APE20140004. [401 KAR 45:110 Section 3(7)]
11. General: This Special Waste Landfill, known as the East Special Waste Landfill (ACTV0004), consists of 162 acres of disposal area and 185 acres of total permitted area. [401 KAR 45:110 Section 3(7)]
12. Wastestreams: The permittee may accept fly ash from Gallagher Generating Station, New Albany, Indiana and from the Clifty Creek Generating Station, Madison, Indiana. The permittee may accept up to 450 tons per day from both stations in accordance with the approved application, APE20160004. [401 KAR 45:110 Section 3(7)]
13. Financial Assurance: The maximum extent of operation includes the area of the landfill identified by an operating permit and for which the final cover Construction Progress Report has not yet been approved by the cabinet. The current maximum extent of operation for this East Special Waste Landfill (ACTV0004) is less than or equal to 115 acres. [401 KAR 45:080]
14. Groundwater Monitoring: The permittee shall submit a revised groundwater monitoring plan for the East Landfill and ash pond for DWM review by November 15, 2017. The revised plan shall consider present groundwater flow conditions at the site and the parameters reflected in the present permit. [401 KAR 45:140 Section 2, 401 KAR 45:160]
15. Wastestreams: The permittee may accept fly ash from the Beckjord Facility, Clermont Co., New Richmond, Ohio. [401 KAR 45:110 Section 3(7)]

Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:

1. 06-07-82 - First Operational Permit for Inert Landfill (effective on 7-16-82)
2. 04-05-84 - Modification for Inert Landfill
3. 07-15-87 - Renewal for Inert Landfill
4. 03-01-96 - Permit Renewal - conversion to Special Waste (effective date 7-16-92)
5. 07-24-96 - Groundwater Monitoring Plan - LIIMOGW1
6. 01-16-97 - Modification Add/Delete Waste Sources - MOAD1
7. 11-12-97 - Modification Add/Delete Waste Sources - MOAD2
8. 11-27-00 - Modification Add/Delete Waste Sources - MOAD3
9. 11-22-04 - APE20040001 - Minor Modification - Add/Delete Modification
10. 04-05-05 - APE20040005 - Minor Modification - Add/Delete Modification
11. 06-07-05 - AIN20010001 - Groundwater Assessment Plan
12. 07-13-05 - APE20050001 - Minor Modification - Leachate Collection System

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

13. 12-12-05 - AIN20050001 - Groundwater Assessment Plan - East Landfill
14. 10-04-06 - APE20060001 - Permit Transfer (to Union Light, Heat, and Power Coop)
15. 10-04-06 - APE20060006 - Minor Modification - Change the Active Area from 40 Acres to 55 Acres
16. 12-06-06 - AIN20060001 - Groundwater Assessment Report - East Landfill
17. 02-16-07 - APE20070001 - Construction Progress Report - Cells P-15 & P16
18. 03-20-07 - APE20060007 - Permit Transfer (to Duke Energy Kentucky, Inc.)
19. 08-15-07 - APE20070003 - Minor Modification - Add Source (bottom ash and plastic for truck lining from Miami Fort)
20. 08-15-07 - APE20070007 - Minor Modification previously labeled as APE20070005 - Add Source (Gypsum from Killen Station)
21. 04-14-11 - CMN20100015 - Acceptance Letter Issued, Groundwater Assessment Report Update - Ash Pond and East Landfill
22. 07-06-12 - APE20120005 - Minor Modification - Add Source (Fly Ash from Spurlock Station)
23. 08-15-12 - AIN20110002 - Groundwater Assessment Report Update - East Landfill
24. 09-22-14 - APE20140004 - Minor Modification - Add Source (Fly Ash from Ghent Generating Station)
25. 05-06-15 - AIN20140003 - Revised Groundwater Assessment Plan - Site-Wide
26. 06-08-15 - AIN20150002 - Groundwater Assessment Report Update - East Landfill
27. 08-18-16 - APE20160004 - Minor Modification - Add Source (Fly Ash from Gallagher Generating Station & Clifty Creek Generating Station)
28. 08-18-16 - APE20150007 - Minor Modification - Chimney Drain, Waste Boundary, and Waste Placement Lift Thickness

ACTV0006 - Special Waste Landfill-Coal

Standard Requirements:

1. General: The owner or operator of a special waste facility shall comply with KRS Chapter 224 and 401 KAR Chapters 30, 40 and 45 for the construction and operation of special waste facilities. [KRS 224.50-760]
2. General: For construction and operation of the special waste landfill, the owner or operator shall comply with KRS Chapter 224.50-760, 401 KAR 45:030, 45:110 and the approved permit application(s). [401 KAR 45:110]
3. General: The owner or operator may only accept waste at the special waste landfill from the sources which are approved per 401 KAR 45:020, Section 2(1)(a), 45:030, Section 8(1)(a), and 45:110. [401 KAR 45:110]

Variances, Alternate Specifications and Special Conditions:

1. Wastestreams: The permittee may accept fly ash from Gallagher Generating Station, New Albany, Indiana and from the Clifty Creek Generating Station, Madison, Indiana. The permittee may accept up to 450 tons per day from both stations in accordance with the approved application, APE20160004. [401 KAR 45:110 Section 3(7)]
2. Groundwater Monitoring: The permittee shall submit a revised groundwater monitoring plan for the West Landfill for DWM review by November 15, 2017. The revised plan shall consider present groundwater flow conditions at the site and the parameters reflected in the present permit. [401 KAR 45:140 Section 2, 401 KAR 45:160]

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

3. Wastestreams: The permittee may accept special waste streams as described in the approved plans and applications from the East Bend Facility, Boone Co., Rabbit Hash, Kentucky. These wastestreams include fixated FGD waste, bottom ash, and pond ash. [401 KAR 45:110 Section 3(7)]

4. Wastestreams: The permittee may accept fly ash from Duke Energy Generation Services of St. Bernard, LLC, Butler Co., Cincinnati, Ohio. [401 KAR 45:110 Section 3(7)]

5. Wastestreams: The permittee may accept fly ash, bottom ash, gypsum, pond ash, and waste water treatment solids from the Miami Fort facility in Hamilton Co., North Bend, Ohio. [401 KAR 45:110 Section 3(7)]

6. Wastestreams: The permittee may accept fly ash, bottom ash, gypsum, and waste water treatment solids from the Zimmer Station Facility, Clermont Co., Moscow, Ohio. [401 KAR 45:110 Section 3(7)]

7. Wastestreams: The permittee may accept gypsum from the Killen Station, Adams Co., Wrightsville, Ohio. [401 KAR 45:110 Section 3(7)]

8. Financial Assurance: The maximum extent of operation includes the area of the landfill identified by an operating permit and for which the final cover Construction Progress Report has not yet been approved by the cabinet. The proposed maximum extent of operation for this West Special Waste Landfill (ACTV0006) is less than or equal to 60 acres. [401 KAR 45:080]

9. Wastestreams: The permittee may accept fly ash from the Spurlock Station, Mason Co., Maysville, Kentucky. The permittee may accept up to 60,000 tons annually, and additional information may be found in the approved application, APE20120005. [401 KAR 45:110 Section 3(7)]

10. Wastestreams: The permittee may accept fly ash from the Ghent Generating Station, Carroll Co., Ghent, Kentucky. The permittee may accept up to 100,000 tons annually and additional information may be found in the approved application, APE20140004. [401 KAR 45:110 Section 3(7)]

11. Construction Requirements: The owner or operator shall proof-roll all sub-subgrade and subgrade areas in accordance with approved applications and permit. All proof-rolls shall be completed using a minimum 100,000 pound loaded four (4) tire scraper with a minimum capacity of 20 cubic yards or approved equivalency. The Solid Waste Branch must be notified at least 48 hours prior to proof-rolling of the final subgrade surface. [401 KAR 45:110 Section 2, 401 KAR 45:140]

12. General: This Special Waste Landfill, known as the West Special Waste Landfill (ACTV0006), consists of 203.7 acres of disposal area and 232 acres of total permitted area. [401 KAR 45:110 Section 3(7)]

13. Wastestreams: The permittee may accept fly ash, bottom ash, and pond ash from the Beckjord Facility, Clermont Co., New Richmond, Ohio. [401 KAR 45:110 Section 3(7)]

14. Wastestreams: The permittee may accept unfixated FGD Waste from the City of Hamilton, Butler Co., Ohio. [401 KAR 45:110 Section 3(7)]

Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:

1. 12-08-2008 - APE20070004 - New Special Waste Activity - West Special Waste Landfill

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

2. 03-09-2011 - APE20100002 - Groundwater Monitoring Plan Modification - West Special Waste Landfill
3. 02-28-2012 - APE20110004 - Construction Progress Report - Floodplain Area Filling (2.1 acres)
4. 07-06-2012 - APE20120005 - Minor Modification - Add Source (Fly Ash from Spurlock Station)
5. 09-22-2014 - APE20140004 - Minor Modification - Add Source (Fly Ash from Ghent Generating Station)
6. 11-18-2015 - APE20150007 - Minor Modification - Updated Attachment 41 Construction Quality Control Plan
7. 06-13-2016 - APE20150008 - Minor Modification - Sediment Pond and Surface Water Controls
8. 08-18-2016 - APE20160004 - Minor Modification - Add Source (Fly Ash from Gallagher Generating Station & Clifty Creek Generating Station)
9. 10-27-2016 - APE20160007 - Minor Modification - Chimney Drain System
10. 03-23-2017 - APE20170002 - Minor Modification - Surface Water Monitoring Plan Revision
11. 09-08-2017 - APE20170005 - Construction Progress Report - Cell 1 (38.32 acres), Sediment Pond and Contact Water Ditch

ACTV0008 - Coal Combustion Residuals Surface Impoundment

Variances, Alternate Specifications and Special Conditions:

1. General: The Coal Combustion Residuals Surface Impoundment has been upgraded from a Permit-by-Rule to a Registered Permit-by-Rule in accordance with the requirements of 401 KAR 45:060. [401 KAR 30:031, 401 KAR 45:060 Section 2]
2. General: The owner or operator of a special waste facility shall comply with KRS Chapter 224 and 401 KAR Chapters 30, 40 and 45 for the construction, operation, maintenance, and closure of special waste facilities. [KRS 224.50-760]

Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:

1. 10-04-06 - APE20060001 - Permit Transfer (to Union Light, Heat, and Power Coop)
2. 03-20-07 - APE20060007 - Permit Transfer (to Duke Energy Kentucky, Inc.)
3. 08-15-07 - AIN20070001 - Groundwater Assessment Plan - Ash Pond
4. 07-16-10 - AIN20080001 - Groundwater Assessment Report - Ash Pond
5. 04-14-11 - CMN20100015 - Acceptance Letter Issued, Groundwater Assessment Report Update - Ash Pond and East Landfill
6. 08-15-12 - AIN20110001 - Groundwater Assessment Report Update - Ash Pond
7. 05-06-15 - AIN20140003 - Revised Groundwater Assessment Plan - Site-Wide
8. 06-08-15 - AIN20150001 - Groundwater Assessment Report Update - Ash Pond

Financial Assurance

ACTV0001 - Financial Assurance

The following is a history of the financial assurance for this facility:

1. 07-10-1987 - SB# B80-201654, \$83,000.00
2. 07-06-1992 - SB# B80-201654, \$539,900.00

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

3. 09-05-2001 - SB# B80-201654, \$564,102.00
4. 09-16-2002 - SB# B80-201654, \$577,534.00
5. 10-23-2003 - Financial Test, \$2,120,500.00
6. 10-31-2003 - SB# B80-201654 released
7. 05-15-2006 - Financial Test, \$2,259,062.00
8. 05-31-2007 - Financial Test, \$2,324,575.00
9. 07-30-2007 - Financial Test, \$2,324,575.00
10. 09-26-2011 - Financial Test, \$2,522,049.00
11. 12-16-2013 - Financial Test, \$2,598,255.00
12. 12-18-2015 - Financial Test, \$2,674,150.00
13. 05-17-1984 - SB# B-80-87915 - \$10,000.00
14. 07-14-2017 - Financial Test, \$2,700,892.00
15. 07-14-2017 - Financial Test, \$4,427,734.00

Monitoring Conditions

GSTR0001 - Groundwater Monitoring - SW: Groundwater Monitoring Group - East Special Waste Landfill

Group Members: STRC0001 - Well MW-1; STRC0002 - Well MW-3; STRC0003 - Well MW-4; STRC0004 - Well MW-5; STRC0005 - Well MW-6; STRC0006 - Well MW-6D; STRC0026 - Well P-7; STRC0028 - Well P-9; STRC0032 - Well MW-7; STRC0040 - Well MW-09; STRC0067 - Well MW-02A

Standard Requirements:

1. The owner or operator shall satisfy the requirements of 401 KAR 45:160 for all wastes and waste constituents contained in the site or facility. [401 KAR 45:160 Section 1]
2. The permittee shall monitor for other parameters as required by the cabinet. [401 KAR 45:160 Section 8(2)(c)]
3. The owner or operator shall monitor groundwater on the approved schedule at each approved groundwater monitoring location in accordance with 401 KAR 45:160, the permit, and the approved plans. A table summarizing the parameters to be monitored, their respective limits and monitoring frequency is included herein. [401 KAR 45:160, 401 KAR 45:140 Section 1(1)]
4. The owner or operator shall conduct statistical analysis of the groundwater data in accordance with 401 KAR 45:160 Section 6 and the approved applications. The statistical test chosen shall be conducted separately for each parameter in each well for each monitoring event. The results shall be maintained as part of the facility record throughout the operating and postclosure life of the facility. [401 KAR 45:160 Section 6, 401 KAR 45:140 Section 1(1)]
5. The groundwater analytical data and statistical analysis shall be submitted on forms provided by the cabinet, within sixty (60) days after sampling or 15 days of the completion of statistical analysis, whichever is sooner. [401 KAR 45:160 Section 4]
6. Groundwater monitoring wells shall be constructed and maintained in accordance with 401 KAR 45:160 Section 3, the permit, and the approved plans. [401 KAR 45:160 Section 3, 401 KAR 45:140 Section 1(1)]

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

7. No monitoring well construction, maintenance, or abandonment may be conducted without prior approval by the Division of Waste Management. [401 KAR 45:140 Section 1(1)]
8. Only a Kentucky Certified Monitoring Well Driller may construct or abandon monitoring wells. [401 KAR 6:320]
9. If the analysis of groundwater sample results indicates contamination (i.e., a statistical or MCL exceedence) as specified in 401 KAR 45:160 Section 5, the owner or operator shall notify the cabinet within (forty-eight) 48 hours of receiving the results and shall arrange to split samples no later than ten (10) days from the receipt of the results. [401 KAR 45:160 Section 5]
10. The owner or operator shall be required to prepare and submit a groundwater contamination assessment plan if laboratory analyses of one (1) or more public or private water supplies or monitoring wells at the site shows the presence of one (1) or more parameters above the maximum contaminant level (MCL) as specified in 401 KAR 30:031 or a statistically significant increase over background levels for parameters that have no MCL. [401 KAR 45:160 Section 5]
11. The owner or operator shall provide alternate water supplies to all affected parties within twenty-four (24) hours of notification of the cabinet that sample results indicate contamination of a drinking water supply if it has been determined that the special waste site or facility is the probable source of the contamination. [401 KAR 45:160 Section 3]
12. If required by the cabinet, groundwater contamination assessment and corrective action shall be performed in full compliance with all provisions of 401 KAR 45:160 Section 5. [401 KAR 45:160 Section 5]

Variances, Alternate Specifications and Special Conditions:

1. Groundwater Monitoring: The permittee shall determine the groundwater flow rate and direction in each monitored aquifer zone each time groundwater is sampled, and include one or more potentiometric surface maps in each semiannual monitoring report. [401 KAR 45:140 Section 1(8), 401 KAR 45:140 Section 2]
2. Monitoring: The permittee shall use SW-846 Test Methods for analysis of groundwater and surface water. If SW-846 Test Methods are unavailable, the permittee shall obtain advance approval from the Division of Waste Management prior to using alternate methods. [401 KAR 45:140 Section 2]
3. Groundwater Monitoring: The permittee shall measure "total recoverable metals" concentrations in measuring groundwater quality. Measurement of total recoverable metals captures both the particulate fraction and dissolved fraction of metals in groundwater. Groundwater samples shall not be field-filtered prior to analysis. [401 KAR 45:140 Section 2]
4. The owner or operator shall provide the division a minimum of ten (10) working days advance notice for all groundwater monitoring well construction and abandonment activities pursuant to 401 KAR 6:350 Section 12(2). [401 KAR 45:140 Section 2]

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

GSTR0003 - Groundwater Monitoring - SW: Assessment Well Group - East Special Waste Landfill and Ash Pond

Group Members: STRC0003 - Well MW-4; STRC0023 - Well P-4; STRC0024 - Well P-5; STRC0025 - Well P-6; STRC0026 - Well P-7; STRC0027 - Well P-8; STRC0028 - Well P-9; STRC0030 - Well MW-5D (Assessment); STRC0031 - Well MW-8D (Assessment); STRC0039 - Well MW-04D; STRC0041 - Well MW-10

Standard Requirements:

1. Groundwater monitoring wells shall be constructed and maintained in accordance with 401 KAR 45:160 Section 3, the permit, and the approved plans. [401 KAR 45:160 Section 3, 401 KAR 45:140 Section 1(1)]
2. No monitoring well construction, maintenance, or abandonment may be conducted without prior approval by the Division of Waste Management. [401 KAR 45:140 Section 1(1)]
3. Only a Kentucky Certified Monitoring Well Driller may construct or abandon monitoring wells. [401 KAR 6:320]

Variances, Alternate Specifications and Special Conditions:

1. The permittee shall monitor these wells for assessment purposes in accordance with the approved groundwater assessment plan. [401 KAR 45:140 Section 1(1)]
2. Monitoring: The permittee shall use SW-846 Test Methods for analysis of groundwater and surface water. If SW-846 Test Methods are unavailable, the permittee shall obtain advance approval from the Division of Waste Management prior to using alternate methods. [401 KAR 45:140 Section 2]
3. Groundwater Characterization: The groundwater assessment characterization list for the facility shall include the following parameters in accordance with 401 KAR 45:160 Section 7(2) and 40 CFR 257 Appendix III and Appendix IV: Antimony, Arsenic, Barium, Beryllium, Bicarbonate, Boron, Cadmium, Calcium, Carbonate, Chemical Oxygen Demand, Chloride, Chromium, Cobalt, Copper, Fluoride, Iron, Lead, Lithium, Magnesium, Mercury, Molybdenum, Nickel, pH, Potassium, Radium 226 and 228 Combined, Selenium, Sodium, Specific Conductance, Sulfate, Thallium, Total Dissolved Solids, Total Organic Carbon, and Zinc. [401 KAR 45:140 Section 2]
4. The owner or operator shall provide the division a minimum of ten (10) working days advance notice for all groundwater monitoring well construction and abandonment activities pursuant to 401 KAR 6:350 Section 12(2). [401 KAR 45:140 Section 2]

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

GSTR0005 - Groundwater Monitoring - SW: Groundwater Observation Well Group - West Special Waste Landfill

Group Members: STRC0033 - Well OW-105; STRC0034 - Well OW-106; STRC0035 - Well OW-104; STRC0036 - Well OW-103; STRC0037 - Well OW-102; STRC0038 - Well OW-101

Standard Requirements:

1. Groundwater monitoring wells shall be constructed and maintained in accordance with 401 KAR 45:160 Section 3, the permit, and the approved plans. [401 KAR 45:160 Section 3, 401 KAR 45:140 Section 1(1)]
2. No monitoring well construction, maintenance, or abandonment may be conducted without prior approval by the Division of Waste Management. [401 KAR 45:140 Section 1(1)]
3. Only a Kentucky Certified Monitoring Well Driller may construct or abandon monitoring wells. [401 KAR 6:320]

Variances, Alternate Specifications and Special Conditions:

1. The permittee shall monitor these wells for assessment purposes in accordance with the approved groundwater assessment plan. [401 KAR 45:140 Section 1(1)]
2. Monitoring: The permittee shall use SW-846 Test Methods for analysis of groundwater and surface water. If SW-846 Test Methods are unavailable, the permittee shall obtain advance approval from the Division of Waste Management prior to using alternate methods. [401 KAR 45:140 Section 2]
3. The owner or operator shall provide the division a minimum of ten (10) working days advance notice for all groundwater monitoring well construction and abandonment activities pursuant to 401 KAR 6:350 Section 12(2). [401 KAR 45:140 Section 2]

GSTR0006 - Groundwater Monitoring - SW: Groundwater Monitoring Group - West Special Waste Landfill - Wells Proposed for Construction

Group Members: STRC0046 - Well MW-205 (Proposed); STRC0047 - Well MW-206 (Proposed); STRC0048 - Well MW-207 (Proposed)

Standard Requirements:

1. Groundwater monitoring wells shall be constructed and maintained in accordance with 401 KAR 45:160 Section 3, the permit, and the approved plans. [401 KAR 45:160 Section 3, 401 KAR 45:140 Section 1(1)]
2. No monitoring well construction, maintenance, or abandonment may be conducted without prior approval by the Division of Waste Management. [401 KAR 45:140 Section 1(1)]
3. Only a Kentucky Certified Monitoring Well Driller may construct or abandon monitoring wells. [401 KAR 6:320]

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

Variances, Alternate Specifications and Special Conditions:

1. The permittee shall construct these wells in accordance with the approved plan. Upon completion of well construction, the permittee shall submit a monitoring well construction progress report to the Division of Waste Management for review. [401 KAR 45:140 Section 1(1)]
2. The owner or operator shall provide the division a minimum of ten (10) working days advance notice for all groundwater monitoring well construction and abandonment activities pursuant to 401 KAR 6:350 Section 12(2). [401 KAR 40:020 Section 2]

GSTR0008 - Groundwater Monitoring - SW: Groundwater Monitoring Group - West Special Waste Landfill

Group Members: STRC0051 - Well MW-201; STRC0052 - Well MW-202; STRC0053 - Well MW-204; STRC0054 - Well MW-208; STRC0055 - Well MW-203

Standard Requirements:

1. The owner or operator shall satisfy the requirements of 401 KAR 45:160 for all wastes and waste constituents contained in the site or facility. [401 KAR 45:160 Section 1]
2. The permittee shall monitor for other parameters as required by the cabinet. [401 KAR 45:160 Section 8(2)(c)]
3. The owner or operator shall monitor groundwater on the approved schedule at each approved groundwater monitoring location in accordance with 401 KAR 45:160, the permit, and the approved plans. A table summarizing the parameters to be monitored, their respective limits and monitoring frequency is included herein. [401 KAR 45:160, 401 KAR 45:140 Section 1(1)]
4. The owner or operator shall conduct statistical analysis of the groundwater data in accordance with 401 KAR 45:160 Section 6 and the approved applications. The statistical test chosen shall be conducted separately for each parameter in each well for each monitoring event. The results shall be maintained as part of the facility record throughout the operating and postclosure life of the facility. [401 KAR 45:160 Section 6, 401 KAR 45:140 Section 1(1)]
5. The groundwater analytical data and statistical analysis shall be submitted on forms provided by the cabinet, within sixty (60) days after sampling or 15 days of the completion of statistical analysis, whichever is sooner. [401 KAR 45:160 Section 4]
6. Groundwater monitoring wells shall be constructed and maintained in accordance with 401 KAR 45:160 Section 3, the permit, and the approved plans. [401 KAR 45:160 Section 3, 401 KAR 45:140 Section 1(1)]
7. No monitoring well construction, maintenance, or abandonment may be conducted without prior approval by the Division of Waste Management. [401 KAR 45:140 Section 1(1)]

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

8. Only a Kentucky Certified Monitoring Well Driller may construct or abandon monitoring wells. [401 KAR 6:320]
9. If the analysis of groundwater sample results indicates contamination (i.e., a statistical or MCL exceedence) as specified in 401 KAR 45:160 Section 5, the owner or operator shall notify the cabinet within (forty-eight) 48 hours of receiving the results and shall arrange to split samples no later than ten (10) days from the receipt of the results. [401 KAR 45:160 Section 5]
10. The owner or operator shall be required to prepare and submit a groundwater contamination assessment plan if laboratory analyses of one (1) or more public or private water supplies or monitoring wells at the site shows the presence of one (1) or more parameters above the maximum contaminant level (MCL) as specified in 401 KAR 30:031 or a statistically significant increase over background levels for parameters that have no MCL. [401 KAR 45:160 Section 5]
11. The owner or operator shall provide alternate water supplies to all affected parties within twenty-four (24) hours of notification of the cabinet that sample results indicate contamination of a drinking water supply if it has been determined that the special waste site or facility is the probable source of the contamination. [401 KAR 45:160 Section 3]
12. If required by the cabinet, groundwater contamination assessment and corrective action shall be performed in full compliance with all provisions of 401 KAR 45:160 Section 5. [401 KAR 45:160 Section 5]
13. The owner or operator shall provide the division a minimum of five (5) working days advance notice for all groundwater monitoring well construction and abandonment activities. [401 KAR 40:020 Section 2(4)]

Variances, Alternate Specifications and Special Conditions:

1. Groundwater Monitoring: The permittee shall determine the groundwater flow rate and direction in each monitored aquifer zone each time groundwater is sampled, and include one or more potentiometric surface maps in each semiannual monitoring report. [401 KAR 45:140 Section 1(8), 401 KAR 45:140 Section 2]
2. Monitoring: The permittee shall use SW-846 Test Methods for analysis of groundwater and surface water. If SW-846 Test Methods are unavailable, the permittee shall obtain advance approval from the Division of Waste Management prior to using alternate methods. [401 KAR 45:140 Section 2]
3. Groundwater Monitoring: The permittee shall measure "total recoverable metals" concentrations in measuring groundwater quality. Measurement of total recoverable metals captures both the particulate fraction and dissolved fraction of metals in groundwater. Groundwater samples shall not be field-filtered prior to analysis. [401 KAR 45:140 Section 2]

GMNP0001 - Surface Water Monitoring - SW: Surface Water Monitoring Group - East Special Waste Landfill

Group Members: MNPT0001 - Downstream Point SW-017

Standard Requirements:

1. The owner or operator shall monitor surface water in accordance with 401 KAR 45:160 Section 9 and the

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

approved surface water monitoring plan. A table summarizing the parameters to be monitored, their respective limits and the monitoring frequency is included herein. [401 KAR 45:160 Section 9]

2. Surface water corrective action shall be completed by the owner or operator as necessary to comply with 401 KAR 30:031. [401 KAR 45:160 Section 9, 401 KAR 30:031 Section 4]

3. Surface water analytical data shall be submitted in the compliance monitoring reports with all other permit-required environmental monitoring results. [401 KAR 45:160 Section 9]

Variations, Alternate Specifications and Special Conditions:

1. Monitoring: The permittee shall use SW-846 Test Methods for analysis of groundwater and surface water. If SW-846 Test Methods are unavailable, the permittee shall obtain advance approval from the Division of Waste Management prior to using alternate methods. [401 KAR 45:140 Section 2]

2. The owner or operator shall monitor surface water in accordance with 401 KAR 45:160 Section 9 and the approved surface water monitoring plan. A table summarizing the parameters to be monitored and monitoring frequency is included herein. [401 KAR 45:160 Section 9]

GMNP0002 - Surface Water Monitoring - SW: Surface Water Monitoring Group - West Special Waste Landfill

Group Members: MNPT0002 - Mon. Pt. SWMP-1; MNPT0003 - Mon. Pt. SWMP-2; MNPT0004 - Mon. Pt. SWMP-3

Standard Requirements:

1. Surface water corrective action shall be completed by the owner or operator as necessary to comply with 401 KAR 30:031. [401 KAR 45:160 Section 9, 401 KAR 30:031 Section 4]

2. Surface water analytical data shall be submitted in the compliance monitoring reports with all other permit-required environmental monitoring results. [401 KAR 45:160 Section 9]

Variations, Alternate Specifications and Special Conditions:

1. Monitoring: Surface water monitoring points SWMP-1, SWMP-2, and SWMP-3 are intended to monitor the West Special Waste Landfill. The permittee shall characterize and monitor these surface water monitoring points in accordance with the approved plan. Semiannual compliance monitoring parameters shall include Boron (Total), Chloride, Calcium (Total), Chemical Oxygen Demand, Total Dissolved Solids, Total Suspended Solids, Specific Conductance, pH, Sulfate, and Copper (Total). A table summarizing the parameters to be monitored and monitoring frequency is included herein. [401 KAR 45:160 Section 9]

2. Monitoring: The permittee shall use SW-846 Test Methods for analysis of groundwater and surface water. If SW-846 Test Methods are unavailable, the permittee shall obtain advance approval from the Division of Waste Management prior to using alternate methods. [401 KAR 45:140 Section 2]

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

Groundwater Monitoring Limits:

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0001	7440-36-0	Antimony, Total (as Sb)	semiannually		0.006	mg/L		
GSTR0001	7440-38-2	Arsenic, Total (as As)	semiannually		0.010	mg/L		
GSTR0001	7440-39-3	Barium, Total (as Ba)	semiannually		2.0	mg/L		
GSTR0001	7440-41-7	Beryllium, Total	semiannually		0.004	mg/L		
GSTR0001		Boron, Total Recoverable	semiannually			mg/L	Yes	
GSTR0001	7440-43-9	Cadmium, Total (as Cd)	semiannually		0.005	mg/L		
GSTR0001	7440-70-2	Calcium	semiannually			mg/L	Yes	
GSTR0001		Carbon, Total Organic	semiannually			mg/L	Yes	
GSTR0001		Chemical Oxygen Demand (COD)	semiannually			mg/L	Yes	
GSTR0001	16887-00-6	Chloride	semiannually			mg/L	Yes	
GSTR0001	7440-47-3	Chromium	semiannually		0.1	mg/L		
GSTR0001	7440-48-4	Cobalt, Total	semiannually			mg/L	Yes	
GSTR0001	16984-48-8	Fluoride	semiannually		4.0	mg/L		
GSTR0001		Groundwater Elevation	semiannually			feet above mean sea level based on a USGS datum		Yes
GSTR0001	7439-89-6	Iron, Total (as Fe)	semiannually			mg/L	Yes	
GSTR0001	7439-92-1	Lead, Total (as Pb)	semiannually		0.015	mg/L		
GSTR0001		Lithium, (Total) as Li	semiannually			mg/L	Yes	
GSTR0001	7439-97-6	Mercury, Total (as Hg)	semiannually		0.002	mg/L		
GSTR0001	7439-98-7	Molybdenum, Total (as Mo)	semiannually			mg/L	Yes	
GSTR0001		Radium 226 + Radium 228, Total	semiannually		5.0	pCi/L		
GSTR0001	7782-49-2	Selenium, Total (as Se)	semiannually		0.05	mg/L		
GSTR0001	7440-23-5	Sodium, Total (as Na)	semiannually			mg/L	Yes	
GSTR0001		Solids, Total Dissolved	semiannually			mg/L	Yes	
GSTR0001		Specific Conductance	semiannually			umho/cm	Yes	
GSTR0001	14808-79-8	Sulfate	semiannually			mg/L	Yes	
GSTR0001		Temperature, Water Deg. Fahrenheit	semiannually			degrees Fahrenheit		Yes
GSTR0001	7440-28-0	Thallium, total [as Tl]	semiannually		0.002	mg/L		
GSTR0001		pH	semiannually			standard units	Yes	

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0008		Boron, Total Recoverable	semiannually			mg/L	Yes	
GSTR0008	7440-70-2	Calcium	semiannually			mg/L	Yes	
GSTR0008	16887-00-6	Chloride	semiannually			mg/L	Yes	
GSTR0008	16984-48-8	Fluoride	semiannually		4.0	mg/L		
GSTR0008		Groundwater Elevation	semiannually			feet above mean sea level based on a USGS datum		Yes
GSTR0008		Solids, Total Dissolved	semiannually			mg/L	Yes	
GSTR0008	14808-79-8	Sulfate	semiannually			mg/L	Yes	
GSTR0008		Temperature, Water Deg. Fahrenheit	semiannually			degrees Fahrenheit		Yes
GSTR0008		pH	semiannually			standard units	Yes	

Permit Number: SW00800006

Agency Interest ID: 176

PERMIT

Surface Water Monitoring Limits:

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GMNP0001		Carbon, Total Organic	semiannually			mg/L		Yes
GMNP0001		Chemical Oxygen Demand (COD)	semiannually			mg/L		Yes
GMNP0001	16887-00-6	Chloride	semiannually			mg/L		Yes
GMNP0001	7439-89-6	Iron, Total (as Fe)	semiannually			mg/L		Yes
GMNP0001	7440-23-5	Sodium	semiannually			mg/L		Yes
GMNP0001		Solids, Total	semiannually			mg/L		Yes
GMNP0001		Solids, Total Dissolved	semiannually			mg/L		Yes
GMNP0001		Solids, Total Suspended (TSS)	semiannually			mg/L		Yes
GMNP0001		Specific Conductance	semiannually			umho/cm		Yes
GMNP0001	14808-79-8	Sulfate	semiannually			mg/L		Yes
GMNP0001		pH	semiannually			standard units		Yes
GMNP0002		Boron, Total Recoverable	semiannually			mg/L		Yes
GMNP0002	7440-70-2	Calcium, total [as Ca]	semiannually			mg/L		Yes
GMNP0002		Chemical Oxygen Demand (COD)	semiannually			mg/L		Yes
GMNP0002	16887-00-6	Chloride	semiannually			mg/L		Yes
GMNP0002	7440-50-8	Copper, Total (as Cu)	semiannually			mg/L		Yes
GMNP0002		Solids, Total Dissolved	semiannually			mg/L		Yes
GMNP0002		Solids, Total Suspended (TSS)	semiannually			mg/L		Yes
GMNP0002		Specific Conductance	semiannually			umho/cm		Yes
GMNP0002	14808-79-8	Sulfate	semiannually			mg/L		Yes
GMNP0002		pH	semiannually			standard units		Yes

APPENDIX 6

TITLE V AIR PERMIT

EAST BEND STATION

WEST LANDFILL

Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality
200 Fair Oaks Lane, 1st Floor
Frankfort, Kentucky 40601
(502) 564-3999

Final

AIR QUALITY PERMIT
Issued under 401 KAR 52:020

Permittee Name: Duke Energy Kentucky Inc., East Bend Station
Mailing Address: 139 East Fourth Street, Mail Code EM740,
Cincinnati, OH 45202

Source Name: Duke Energy Kentucky Inc., East Bend Station
Mailing Address: 6293 Beaver Road,
Union, KY 40191

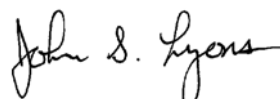
Source Location: Bank of the Ohio River

Permit: V-12-023
Agency Interest: 176
Activity: APE20120001
Review Type: Title V, Operating
Source ID: 21-015-00029

Regional Office: Florence Regional Office
8020 Veterans Memorial Drive, Suite 110
Florence, KY 41042
(859) 525-4923

County: Boone

Application
Complete Date: April 8, 2012
Issuance Date: April 19, 2013
Revision Date:
Expiration Date: April 19, 2018



John S. Lyons, Director
Division for Air Quality

TABLE OF CONTENTS

SECTION	ISSUANCE	PAGE
A. PERMIT AUTHORIZATION	Renewal	1
B. EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS	Renewal	2
C. INSIGNIFICANT ACTIVITIES	Renewal	30
D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS	Renewal	32
E. SOURCE CONTROL EQUIPMENT REQUIREMENTS	Renewal	33
F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS	Renewal	34
G. GENERAL PROVISIONS	Renewal	37
H. ALTERNATE OPERATING SCENARIOS	Renewal	42
I. COMPLIANCE SCHEDULE	Renewal	42
J. ACID RAIN	Renewal	43
K. CLEAN AIR INTERSTATE RULE (CAIR)	Renewal	45
L. TRANSPORT RULE	Renewal	46

	Permit type	Activity#	Complete Date	Issuance Date	Summary of Action
V-06-038	Renewal	APE20040006	10/01/05	08/06/07	Renewal Permit
V-12-023	Renewal	APE20120001	04/08/12	04/19/13	Renewal Permit

Permit V-12-023

Page 1 of 46

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality (Division) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Energy and Environment Cabinet (Cabinet) or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions unit: 02 - Unit 2 Indirect Heat Exchanger

Description:

Pulverized coal-fired, dry bottom, wall-fired unit with an electrostatic precipitator (ESP), flue gas desulfurization (FGD), Selective Catalytic Reduction (SCR) and low nitrogen oxides modified burners

Number two fuel oil used for startups and flame stabilization

Secondary Fuel: petroleum coke

Maximum continuous rating: 6,313 MMBtu/hour, 301 tons coal/hour

Construction commenced: 1976

Applicable Regulations:

401 KAR 59:015, Indirect Heat Exchangers

401 KAR 60:005 Section 3(b), incorporating by reference **40 CFR 60, Subpart D**, Standards of Performance for Fossil-Fuel-Fired Steam Generators, for an emissions unit greater than 250 MMBtu /hour and commenced after August 17, 1971

401 KAR 50:012, General application

401 KAR 51:017, Prevention of significant deterioration of air quality

401 KAR 51:160, NO_x requirements for large utility and industrial boilers; incorporating by reference 40 CFR 96

401 KAR 51:210, CAIR NO_x Annual Trading Program (See Section K).

401 KAR 51:220, CAIR NO_x Ozone Season Trading Program (See Section K)

401 KAR 51:230, CAIR SO₂ Trading Program (See Section K)

401 KAR 52:060, Acid rain permits, incorporating by reference the Federal Acid Rain provisions as codified in 40 CFR Parts 72 to 78

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

40 CFR 63 Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants, Coal- and Oil-Fired Electric Utility Steam Generating Units

1. Operating Limitations:

NA

2. Emission Limitations:

a) Pursuant to 40 CFR 60.43(a)(2) and 401 KAR 51:017, the sulfur dioxide emissions shall not exceed 1.2 lbs/MMBtu based on a three-hour average.

b) Pursuant to 40 CFR 60.42(a)(1) and 401 KAR 51:017, particulate emissions shall not exceed 0.10 lb/MMBtu based on a three-hour average.

c) Pursuant to 40 CFR 60.42(a)(2), emissions shall not exceed twenty (20) percent opacity based on a six-minute average except:

1. a maximum of twenty-seven (27) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes.

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emissions from an indirect heat exchanger shall not exceed 20 percent opacity based on a six-minute average except during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- d) Pursuant to 401 KAR 50:012, nitrogen oxides emissions shall not exceed 0.5 lbs/MMBtu based on a thirty (30) calendar day continuous rolling average.

Compliance Demonstration Method:

To provide assurance that the particulate and the visible emission limitations are being met the permittee shall comply with the 3. Testing Requirements below. To provide assurance that sulfur dioxide and nitrogen oxides emission limits are being met the permittee shall comply with the 4. Specific Monitoring Requirements below.

- e) The permittee shall comply with all applicable provisions of 40 CFR Part 63.9991

Compliance Demonstration Method:

1. The permittee shall comply with this subpart no later than April 16, 2015. [40 CFR Part 63.9984 (b)]
2. The permittee shall meet the notification requirements in 40 CFR Part 63.10030 according to the schedule in 40 CFR Part 63.10030 and in subpart A of this part. Some of the notifications must be submitted before compliance with the emission limits and work practice standards in this subpart is required. [40 CFR Part 63.9984 (c)]
3. The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after the applicable date in paragraph (b), or (c) of this section. [40 CFR Part 63.9984 (f)]
4. The permittee shall demonstrate continuous compliance according to 40 CFR 63.10000 through 40 CFR 63.10023.

3. Testing Requirements:

- a) Pursuant to 401 KAR 50:045, the permittee shall submit within six months of the issuance date of the final permit a schedule, to conduct a performance test for particulate compliance within one year of issuance of this permit.
- b) Testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit.

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c) In accordance with 4.b Specific Monitoring Requirements, the permittee shall submit a schedule within six months from the date of issuance of this permit to conduct testing within one year following the issuance of this permit to re-establish the correlation between opacity and particulate emissions.
- d) If no additional stack tests are performed pursuant to 4.b(ii) Specific Monitoring Requirements, the permittee shall conduct a performance test for particulate emissions by the start of the fourth year of this permit to demonstrate compliance with the applicable standard.
- e) If no EPA Reference Method 9 tests are performed pursuant to 4.a(ii) Specific Monitoring Requirements, then the permittee shall determine the opacity of emissions from the stack by Method 9 at least once every 14 boiler operating days when operating, or more frequently if requested by the Division, to demonstrate compliance with the opacity standard. If no Method 9's are completed during the time period, the reason for not completing a test shall be documented and the permittee may use the COM system for assuring compliance with the visible emission limitation during that period.
- f) The permittee shall comply with all applicable provisions of 40 CFR 63.10005 through 40 CFR 63.10009 and 40 CFR 63.10011.

4. Specific Monitoring Requirements:

- a) Pursuant to 40 CFR 60.45, Performance Specification 1 of 40 CFR 60, Appendix B, and 401 KAR 52:020, Section 10, a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any three consecutive six-minute average opacity values exceed the opacity standard, the permittee shall, as appropriate:
 - (i) Accept the readout from the COM as an indicator of equipment performance and perform an inspection of the COM and/or the control equipment and make any repairs or;
 - (ii) Within thirty (30) minutes after the third consecutive COM indicated exceedance of the opacity standards, if emissions are visible, initiate a determination of opacity using Reference Method 9. Also within thirty (30) minutes after the third consecutive COM indicated exceedance, inspect the COM and/or the control equipment, and initiate any repairs. If a Method 9 cannot be performed, the reason for not performing the test shall be documented.
- b) Pursuant to 40 CFR 64.4(a)(1), opacity shall be used as an indicator of particulate matter emissions, as measured by the COM. The opacity indicator for compliance assurance is twenty percent (20%).

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c) Pursuant to 40 CFR Part 64.4(c)(1), the facility shall continuously record COM data collected during the required PM performance test. COM Data recorded during each test run shall not exceed 20% based on a six-minute average. The 20% opacity indicator level shall provide reasonable assurance that particulate matter emissions are in compliance. Excluding exempted time periods:
 - (i) If any three (3) hour average of opacity values exceeds the opacity indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs.
 - (ii) If five (5) percent or greater of the COM data (three (3) hour average of opacity values) recorded in a calendar quarter show excursions above the opacity indicator level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by Section G.5.a of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.
- d) Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the ESP primary/secondary current and voltage on a daily basis.
- e) Pursuant to 40 CFR 60.45(a) and 401 KAR 52:020, Section 10, continuous emission monitoring systems shall be installed, calibrated, maintained, and operated for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions and either oxygen or carbon dioxide emissions. The continuous emission monitoring systems shall comply with 401 KAR 59:015, Section 7 particularly, performance specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A. Pursuant to 40 CFR 64.3(d), the continuous emission monitoring systems shall be used to satisfy CAM requirements.
- f) Pursuant to 401 KAR 52:020, Section 10, to meet the monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM) Excluding the startup and shut down periods, if any 3-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the CEM system and make any necessary repairs as soon as practicable.
- g) Pursuant to 401 KAR 52:020, Section 10, to meet the monitoring requirement for nitrogen oxide, the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shut down periods, if any 3-hour average nitrogen oxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- h) Pursuant to 40 CFR 60.45(c)(1), for performance evaluations of the sulfur dioxide and nitrogen oxides continuous emission monitoring system as required under 401 KAR 59:005, Section 4(3) and calibration checks as required under 401 KAR 59:005, Section 4(4), reference methods 6c or 7e shall be used as applicable as described by 401 KAR 50:015.
- i) Pursuant to 40 CFR 60.45(c)(2), sulfur dioxide or nitric oxide (nitrogen oxides), as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60, filed by reference in 401 KAR 50:015.
- j) Pursuant to 40 CFR 60.45(c)(3), the span value for the continuous emission monitoring system measuring opacity of emissions shall be eighty (80), ninety (90), or one-hundred (100) percent and the span value for the continuous emission monitoring system measuring sulfur dioxide and nitrogen oxides emissions shall be in accordance with 40 CFR 60.45(c)(3)(i) or 40 CFR 75, Appendix A.
- k) Continuous emission monitoring data shall be converted into the units of applicable standards using the conversion procedure described in 40 CFR 60.45(e).
- l) Pursuant to 40 CFR 60.45(5), for an indirect heat exchanger that simultaneously burns fossil fuel and nonfossil fuel, the span value of all continuous monitoring systems shall be subject to the Division's approval.
- m) Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the duration of the start up.
- n) The permittee shall comply with all applicable continuous monitoring requirements of 40 CFR 63.10010, 40 CFR 63.10020 and 40 CFR 63.10021.

5. Specific Recordkeeping Requirements:

- a) Pursuant to 401 KAR 59:005, Section 3 (4), the owner or operator of the indirect heat exchanger shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by 401 KAR 59:005 recorded in a permanent form suitable for inspection.
- b) Pursuant to 401 KAR 59:005, Section 3(2), the owner or operator of this unit shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facility, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative.

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c) The permittee shall maintain records of the COM data on a three-hour rolling average basis, the number of excursions above the indicator range, time and date of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator level in each calendar quarter.
- d) Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep records of primary/secondary voltage, current and the results of compliance tests shall be maintained with long-term operational records for a period of five (5) years.
- e) Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations in a designated logbook and/or an electronic format. Records shall be maintained for five (5) years.
- f) Pursuant to 401 KAR 52:020, Section 10, the permittee shall record the duration of start up.
- g) The permittee shall comply with all applicable recording provisions of 40 CFR 63.10030 through 40 CFR 63.10033.

6. Specific Reporting Requirements:

- a) Pursuant to 401 KAR 59:005, Section 3 (3), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division. Owners or operators of facilities required to install continuous monitoring systems shall submit for every calendar quarter a written report of excess emissions (as defined in applicable sections) to the Division. The averaging period used for data reporting should correspond to the averaging period specified in the emission test method used to determine compliance with an emission standard for the pollutant/source category in question. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:
 - 1. The magnitude of the excess emission computed in accordance with 401 KAR 59:005, Section 4(8), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - 2. All hourly averages shall be reported for sulfur dioxide and nitrogen oxides monitors. The hourly averages shall be made available in the format specified by the Division.
 - 3. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.
 - 4. The date and time identifying each period during which continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
 - b) Pursuant to 40 CFR 60.45(g), for the purposes of reports required under 401 KAR 59:005, Section 3(3), periods of excess emissions that shall be reported are defined as follows:
 1. Excess emissions are defined as any six minute period during which the average opacity of emissions exceeds twenty percent opacity, except that one (1) six (6) minute average per hour of up to twenty-seven (27) percent opacity need not be reported.
 2. Excess emissions of sulfur dioxide are defined as any three (3) hour period during which the average emissions (arithmetic average of three contiguous one hour periods) exceed the applicable sulfur dioxide emissions standard.
 3. Pursuant to 401 KAR 50:012, excess emissions for the emissions unit using a continuous monitoring system for measuring nitrogen oxides are defined as any thirty (30) day period during which the average emissions (arithmetic average of thirty contiguous calendar days) exceed the applicable nitrogen oxides emissions standard.
 - c) The permittee shall report the number of excursions (excluding startup, shutdown, malfunction data) above the opacity indicator level, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity indicator level in each calendar quarter.
 - d) Pursuant to 401 KAR 52:020, Section 10, for exceedances that occur as a result of start-up, the permittee shall report:
 1. The type of start-up (cold, warm, or hot);
 2. Whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations.
 - e) The permittee shall comply with all applicable reporting provisions of 40 CFR 63.10030 through 40 CFR 63.10033.
 - f) See Section D, Source Emission Limitations and Testing Requirements.
- 7. Specific Control Equipment Operating Conditions:**
- a) Pursuant to 401 KAR 50:055, the electrostatic precipitator (ESP), SO₂ scrubber (FGD), and selective catalytic reduction (SCR) shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

Permit V-12-023

Page 9 of 46

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b) Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance (e.g., routine scheduled service, replacement of parts, etc.) of the control equipment shall be maintained.
- c) Refer to Section E, Source Control Equipment Requirements.

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 03 (01-07, 22) - Coal Handling Operations

Description:

Equipment includes:

Emission Unit:	Description:	Process Rate (tons/hour):	Control Method:
03-01	Coal Unloader Digging Coal	4500	Water Spray
03-02	Coal Unloader to Conveyer A	4500	Full Enclosure
03-03	Conveyer A to Conveyer B	4500	Full Enclosure
03-04	Conveyer B to Conveyer C	4500	Full Enclosure
03-05	Conveyer C to Conveyer E	4500	Full Enclosure with Baghouse
03-06	Conveyer E to 1200 Ton Storage Bin	4500	Full Enclosure with Baghouse
03-07	1200 Ton Storage Bin to Pan Scraper	4500	Precautionary Measures
03-22	Coal Pile Wind Erosion	10	None

Construction commenced: 1976

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality;

401 KAR 51:017, Prevention of significant deterioration of air quality.

1. Operating Limitations:

- a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
 1. Application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;
 2. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling.
 3. The maintenance of paved roadways in a clean condition;
 4. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or other earth moving equipment or erosion by water.
- b) Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c) Pursuant to 401 KAR 63:010, no one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway.

2. Emission Limitations:

NA

3. Testing Requirements:

NA

4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the amount of coal (tonnages) received and processed through each piece of conveying or handling equipment, including stockpiles, on a weekly basis. Visible emissions from each piece of equipment or operation described for this item or group shall be monitored daily during daylight hours to determine whether conditions appear to be normal or abnormal.

5. Specific Recordkeeping Requirements:

Pursuant to 401 KAR 52:020, Section 10, records of the amount of coal (tonnages) received and processed through each piece of conveying or handling equipment, including stockpiles, on a weekly basis.

6. Specific Reporting Requirements:

Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.

7. Specific Control Equipment Operating Conditions:

- a) Pursuant to 401 KAR 50:055, the watering and compaction on the stockpile shall be used and operated to maintain compliance with permitted emission limitations and applicable requirements, in accordance with standard operating practices.
- b) Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance and operation of the control equipment and measures mentioned in Subsection 7(a) shall be maintained.
- c) Refer to Section E, Source Control Equipment Requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 04 (03 (08-21)) - Coal crushing and processing operations

Description:

Equipment includes:

Emission Unit:	Description:	Process Rate (tons/hour):	Control Method:
03-08	Pan Scraper Loads into Pile	4500	Precautionary Measures
03-09	Loaded Pan Scraper on Storage Pile	39.6	Precautionary Measures
03-10	Empty Pan Scraper on Storage Pile	61.6	Precautionary Measures
03-11	Loading Pan Scraper on Storage Pile	22	Precautionary Measures
03-12	Pan Scraper Scrapes Coal from Pile	19	Precautionary Measures
03-13	Pan Scraper to Reclaim Hopper	2000	Precautionary Measures
03-14	Reclaim Hopper to Conveyer D	2000	Full Enclosure & Baghouse
03-15	Conveyer D to 270 Ton Surge Bin	2000	Full Enclosure & Baghouse
03-16	270 Ton Surge Bin to Coal Crusher	2000	Full Enclosure & Baghouse
03-17	Coal Crushing	2000	Full Enclosure & Baghouse
03-18	Coal Crusher to Conveyer F1	2000	Full Enclosure & Baghouse
03-19	Conveyer F1 to Conveyer G1	2000	Full Enclosure & Baghouse
03-20	Conveyer G1 to tripper G1-1	2000	Full Enclosure & Baghouse
03-21	Tripper G1-1 to Unit 2 Bunkers	2000	Full Enclosure & Baghouse

Construction commenced: 1976

Applicable Regulations:

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Y, Standards of performance for coal preparation plants, for emissions units commenced after October 24, 1974.

401 KAR 51:017, Prevention of significant deterioration of air quality

1. Operating Limitations:

NA

2. Emission Limitations:

Pursuant to 40 CFR 60.252, the owner or operator subject to the provisions of this regulation shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

Compliance Demonstration Method:

See 4.b Specific Monitoring Requirements for compliance.

3. Testing Requirements:

a) Pursuant to 40 CFR 60.254, EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b) If no additional Method 9 performance tests are performed pursuant to 4.c) Specific Monitoring Requirements, the permittee shall conduct at least one Method 9 evaluation on each emission point stack, each calendar quarter to demonstrate compliance with the particulate standard.

4. Specific Monitoring Requirements:

- a) Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the amount of material processed and the hours of operation of the unit on a weekly basis.
- b) Pursuant to 40 CFR 64.4(a)(1) and the CAM plan filed, opacity shall be used as an indicator of particulate matter emissions. The permittee shall perform a visible observation of the opacity of emissions from each stack on a daily weekday (Monday thru Friday) basis and maintain a log of the observation. If visible emissions from a stack are seen, then an inspection shall be initiated of the control equipment for any repairs.
- c) Pursuant to 401 KAR 52:020, Section 10, if during qualitative visible observations, visible emissions from an affected facility are seen at least once each week for two consecutive weeks, then the opacity of emissions shall be determined by EPA Reference Method 9 at least once during that two-week period while the affected facility is operating at representative capacity or at a frequency requested by the Division.

5. Specific Recordkeeping Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall record the amount of coal received and processed on a weekly basis for emissions inventory purposes.

6. Specific Reporting Requirements:

Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.

7. Specific Control Equipment Operating Conditions:

- a) Pursuant to 401 KAR 50:055, Section 2, the enclosure and baghouses on the two crushers, and the enclosures and baghouses on the conveyors and transfer points, baghouses for the coal bunker load-in, and baghouses (same as for crushers) for the coal pile reclaim shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and standard operating practices.
- b) Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance of the control equipment shall be maintained.
- c) Refer to Section E, Source Control Equipment Requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 08 (01-07) - Main Flyash Storage Silo Loadout to Dump Trucks

Description:

Equipment includes:

Emission Unit:	Description:	Process Rate (tons/hour):	Control Method:
08-01	ESP Hopper to Pneumatic Conveyer	50	Drop Heights
08-02	Pneumatic Conveyer to Main Fly Ash Silo	150	Full Enclosure & ESP
08-03	Main Fly Ash Silo to Pneumatic Conveyer	150	Full Enclosure
08-04	Pneumatic Conveyer to Fixing Plant Ash silo	100	Full Enclosure & Baghouse
08-05	Main Fly Ash Silo to Pug Mill	300	Full Enclosure
08-06	Pug Mill Mixing	150	Full Enclosure & Mix Material with Water
08-07	Pug Mill to Dump Truck	300	Drop Heights & Residual Moisture

Construction commenced: 1976

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

- a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
 1. Application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;
 2. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling.
 3. The maintenance of paved roadways in a clean condition;
 4. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or other earth moving equipment or erosion by water.
- b) Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

Permit V-12-023

Page 15 of 46

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c) Pursuant to 401 KAR 63:010, no one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway.

2. Emission Limitations:

NA

3. Testing Requirements:

NA

4. Specific Monitoring Requirements:

Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.

5. Specific Recordkeeping Requirements:

Pursuant to 401 KAR 52:020, Section 10, records of the flyash processed (tonnages) shall be maintained for emission inventory purposes.

6. Specific Reporting Requirements:

Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.

7. Specific Control Equipment Operating Conditions:

- a) Pursuant to 401 KAR 50:055, Adequate control measures shall be used to maintain compliance with permitted applicable requirements, in accordance with manufacturer's specifications and standard operating practices.
- b) Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance and operation/use of the control equipment and measures mentioned in Subsection 7(a) shall be maintained.
- c) Refer to Section E, Source Control Equipment Requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 10 (01-15) - Flue Gas Desulfurization Sludge Fixing Plant

Description:

Equipment includes:

Emission Unit:	Description:	Process Rate (tons/hour):	Control Method:
10-01	Fixing Plant Ash Silo to Conveyor CO-267	72	Full Enclosure
10-02	Conveyor CO-267 to Conveyor CO-264	72	Full Enclosure
10-03	Conveyor CO-264 to Pug Mill 2-1 & 2-2	72	Full Enclosure
10-04	Fixing Plant Lime Silo to Conveyor CO-265	72	Full Enclosure
10-05	Conveyor CO-265 to Conveyor CO-264	72	Full Enclosure
10-06	Conveyor CO-264 to Pug Mill 2-1 & 2-2	72	Full Enclosure
10-07	Pug Mill Mixer 2-1 & 2-2 Mixing	500	Rotoclones, Full Enclosure
10-08	Pug Mill Mixers to Mixer Conveyor	500	Full Enclosure
10-09	Mixer Discharge Conveyor to Pile	500	Precaution
10-10	Pile to Track Hoe (Mobile Loader)	500	Precaution
10-11	Track Hoe to Dump Truck	500	Precaution
10-12	Dump Truck to Emergency Hopper	50	Precaution
10-13	Emergency Hopper to Belt Feeder	50	Full Enclosure
10-14	Belt Feeder to Reclaim Hopper	50	Full Enclosure
10-15	Reclaim Conveyor to Pug Mill Mixer 2-1	50	Full Enclosure

Construction commenced: 1976

Applicable Regulations:

401 KAR 59:010, New process operations, applicable to an emissions unit commenced on or after July 2, 1975

1. Operating Limitations:

Pursuant to 401 KAR 52:020, Section 10, the operating rate shall not exceed 250 tons/hour.

2. Emission Limitations:

- a) Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions into the open air shall not exceed $[17.31(P)^{0.16}]$ pounds per hour based on a three-hour average where P is the processing rate in tons per hour. (The permittee may assure compliance with the particulate standard by calculating emissions using the following formula: pounds PM per hour = Material throughput in Tons/Hour x 0.012 pounds per ton x (1-0.91).)
- b) Pursuant to 401 KAR 59:010, Section 3(1)(a) visible emissions shall not equal or exceed twenty (20) percent opacity based on a six-minute average.

Compliance Demonstration Method:

See 4.a and 4.b Specific Monitoring Requirements for compliance.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 4.

4. Specific Monitoring Requirements:

- a) Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the processing rate and hours of operation on a weekly basis.
- b) Pursuant to 40 CFR 64.4(a)(1) and the CAM plan filed, opacity shall be used as an indicator of particulate matter emissions. The permittee shall perform a visible observation of the opacity of emissions from each stack on a daily weekday (Monday thru Friday) basis and maintain a log of the observation. If visible emissions from a stack are seen, then an inspection shall be initiated of the control equipment for any repairs.
- c) Pursuant to 401 KAR 52:020, Section 10, if during qualitative visible observations, visible emissions from an affected facility are seen at least once each week for two consecutive weeks, then the opacity of emissions shall be determined by EPA Reference Method 9 at least once during that two-week period while the affected facility is operating at representative capacity or at a frequency requested by the Division.

5. Specific Record Keeping Requirements:

- a) Pursuant to 401 KAR 52:020, Section 10, records of the weekly material processed (tonnages) and the weekly hours of operation shall be maintained.
- b) Pursuant to 401 KAR 52:020, Section 10, records documenting the results of each opacity reading by EPA Reference Method 9 shall be maintained.

6. Specific Reporting Requirements:

Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.

7. Specific Control Equipment Operating Conditions:

- a) Pursuant to 401 KAR 50:055, the enclosures shall be used on all conveyors and transfer points, and enclosure and two hydrostatic rotoclones (wet type dust collectors) shall be used on the two pug mills and operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and standard operating practices.
- b) Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance and operation and use of all control equipment in Subsection 7(a) shall be maintained.
- c) Refer to Section E, Source Control Equipment Requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 11 (11 and 12) - Plant Roadways

Description:

Emission Unit:	Description:	Process Rate (1000 tons of material transported/hour):	Control Method:
11	Unpaved Roads	0.5	Full Enclosure
12	Paved Roads	0.5	Full Enclosure

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

- a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
 - 1. application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;
 - 2. the maintenance of paved roadways in a clean condition;
 - 3. the prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or other earth moving equipment or erosion by water.
- b) Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.
- c) Pursuant to 401 KAR 63:010, no one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway.

2. Emission Limitations:

NA

3. Testing Requirements:

NA

4. Specific Monitoring Requirements:

Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.

5. Specific Record Keeping Requirements:

Pursuant to 401 KAR 52:020, Section 10, records of the tonnage of materials hauled shall be maintained.

Permit V-12-023

Page 19 of 46

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 63:010, plant roadways shall be controlled with water.

b) Refer to Section E, Source Control Equipment Requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 12 (12-14) -Landfill Operations

Description:

Equipment includes:

Emission Unit:	Description:	Operating Hours:	Control Method:
12-12	Bulldozing	1	None
12-13	Truck Dumping	500	Watering as needed

Construction commenced: 1976

Emission Unit:	Description:	Acre Years of Exposure:	Control Method:
12-14	Wind Erosion	25	Watering as needed

Construction commenced: 1976

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

- a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
 1. Application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;
 2. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling;
 3. The maintenance of paved roadways in a clean condition;
 4. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or other earth moving equipment or erosion by water.
- b) Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.
- c) Pursuant to 401 KAR 63:010, Section 3, no one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway.

2. Emission Limitations:

NA

Permit V-12-023

Page 21 of 46

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

NA

4. Specific Monitoring Requirements:

Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.

5. Specific Record Keeping Requirements:

Pursuant to 401 KAR 52:020, Section 10, records of the disposal rate (tonnages) shall be maintained.

6. Specific Reporting Requirements:

Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.

7. Specific Control Equipment Operating Conditions:

- a) Pursuant to 401 KAR 63:010, watering shall be used to maintain compliance with applicable requirements, in accordance with standard operating practices.
- b) Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance and use of the control measures in Subsection 7(a) shall be maintained.
- c) Refer to Section E, Source Control Equipment Requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 14 (01-25) - Lime Handling Operations (Fugitive Emissions)

Description:

Equipment includes:

Emission Unit:	Description:	Process Rate (tons/hour):	Control Method:
14-01	Lime Barge Loader	600	Short Drop Heights
14-02	Lime Barge Unloader Hopper	600	Part Encl & Baghouse
14-03	Lime Hopper to belt Feeder	600	Total Encl & Baghouse
14-04	Belt Feeder to Conveyor 1	600	Total Encl & Baghouse
14-05	Conveyor 1 to Main Lime Silo	600	Total Encl & Baghouse
14-06	Main Lime Silo to Conveyor 3-A	120	Total Encl & Baghouse
14-07	Conveyor 3-A to Vibrating Screen	120	Total Encl & Baghouse
14-08	Vibrating Screen	120	Total Encl & Baghouse
14-09	Vibrating Screen to day Bin	120	Total Encl & Baghouse
14-10	Day bin to screw Conveyor	32	Total Encl & Baghouse
14-11	Screw Conveyor to vert-Mill	32	Total Encl & Baghouse
14-12	Lime Crushers (4)	32	Total Encl & Baghouse
14-13	Dump Crush Lime to Dumper House Hopper	25	Part Encl & Baghouse
14-14	Dumper House Hopper to belt Feed	25	Total Encl & Baghouse
14-15	Belt Feed to Conveyor 3	25	Total Encl & Baghouse
14-16	Conveyor 3 to conveyor 3-A	25	Total Encl & Baghouse
14-17	Main Lime Silo to truck Loading	25	Total Enclosed
14-18	FGD Sludge Fix Plant Truck Dump	25	Part Encl & Baghouse
14-19	Sludge Fix Plant to Lime crusher	25	Total Encl & Baghouse
14-20	Lime Crusher (4)	25	Total Encl & Baghouse
14-21	Lime Crusher to Belt Feeder	25	Total Encl & Baghouse
14-22	Belt Feeder to Sludge Fix Plant Lime Conveyor	25	Total Encl & Baghouse
14-23	Sludge Fix Plant Lime Conveyor to Lime Silo	25	Total Encl & Baghouse
14-24	FGD Plant Lime Tanker Unload	75	Total Encl & Baghouse
14-25	FGD Plant Lime Silo	75	Total Encl & Baghouse

Construction commenced: 1976

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

401 KAR 51:017, Prevention of significant deterioration of air quality.

1. Operating Limitations:

- a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. Application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;
 2. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling.
 3. The maintenance of paved roadways in a clean condition;
 4. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or other earth moving equipment or erosion by water.
- b) Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.
- c) Pursuant to 401 KAR 63:010, Section 4, no one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway.
2. **Emission Limitations:**
NA
 3. **Testing Requirements:**
NA
 4. **Specific Monitoring Requirements:**
Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.
 5. **Specific Record Keeping Requirements:**
Pursuant to 401 KAR 52:020, Section 10, records of the lime received and processed (tonnages) shall be maintained on a weekly basis for emission inventory purposes.
 6. **Specific Reporting Requirements:**
Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.
 7. **Specific Control Equipment Operating Conditions:**
 - a) Pursuant to 401 KAR 63:010, watering shall be used to maintain compliance with applicable requirements, in accordance with standard operating practices.
 - b) Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance and use of the control measures in Subsection 7(a) shall be maintained.
 - c) Refer to Section E, Source Control Equipment Requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 13 - Emergency Diesel Generator

Description:

Number two-fuel oil-fired unit

Maximum continuous rating: 7.7 MMBtu/hour (1100 HP)

Construction commenced: 1976

Applicable Regulations:

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines; existing stationary RICE with a site rating of more than 500 brake (HP) located at a major source of HAP emissions, that was constructed before December 19, 2002.

1. Operating Limitations:

- a) 40 CFR 63.6590(b)(3)(iii), an existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions does not have to meet the requirements of 40 CFR 63, Subpart ZZZZ, including initial notification requirements.
- b) Pursuant to 40 CFR 63.6640(f)(2), Requirements for emergency stationary RICE, the permittee must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If the engine is not operated according to the requirements in paragraphs (f)(2)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.
 - (i) There is no time limit on the use of emergency stationary RICE in emergency situations.
 - (ii) The permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.
 - (iii) The permittee may operate the emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

2. Emission Limitations:

NA

3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 4.

Permit V-12-023

Page 25 of 46

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- a) Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the amount of fuel used at the engine on a monthly basis.
- b) Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the hours of operation for the engine on a monthly basis.

5. Specific Record Keeping Requirements:

- a) Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the amount of fuel oil usage (gallons) for the engine monthly basis.
- b) Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the hours of operation of the engine on a monthly basis.

6. Specific Reporting Requirements:

Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 16 - Emergency Diesel Fire Pump

Description:

Cummins, Model NT-855-F2

Maximum continuous rating: 2.1 MMBtu/hour (285 HP)

Construction commenced: 1976

Applicable Regulations:

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines; existing stationary RICE with a site rating of less than 500 brake (HP) located at a major source of HAP emissions, that was constructed before June 12, 2006.

1. Operating Limitations:

- a) Pursuant to 40 CFR 63.6595(a), the permittee shall comply with these operating conditions no later than May 3, 2013.
- b) Pursuant to 40 CFR 63.6602, the permittee shall:
 1. Change oil and filter every 500 hours of operation or annually, whichever comes first;
 2. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
 3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- c) Pursuant to 40 CFR 63.6625(i), the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement above. The oil analysis must be performed at the same frequency specified for changing the oil as described above. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within 2 days or before commencing operation, whichever is later. The permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine.
- d) Pursuant to 40 CFR 40 CFR 63.6605(a), the permittee shall be in compliance with the emission limitations and operating limitations at all times.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- e) Pursuant to 40 CFR 6605(b), at all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
- f) Pursuant to 40 CFR 63.6625(e), 40 CFR 63.6640(a), the permittee shall operate and maintain the engine and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- g) Pursuant to 40 CFR 63.6625(h), the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
- h) Pursuant to 40 CFR 63.6640(f), the permittee shall operate the engine according to the requirements in paragraphs (i) through (iii) below. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year for each engine is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (i) through (iii) below, the engine will not be considered an emergency engine under 40 CFR Subpart ZZZZ and will need to meet all requirements for non-emergency engines.
 - (i) There is no time limit on the use of the engine in emergency situations.
 - (ii) The permittee may operate the engine for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing is limited to 100 hours per year for each engine. The permittee may petition the Division for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee records indicating that Federal, State, or local standards require maintenance and testing of each engine beyond 100 hours per year.
 - (iii) The permittee may operate each engine up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that the permittee may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power.

Compliance Demonstration Method:

Compliance shall be demonstrated by monitoring, recordkeeping and reporting of operational data. See 4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements, and 6. Specific Reporting Requirements in this section.

2. Emission Limitations:

NA

3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 4.

4. Specific Monitoring Requirements:

- a) Pursuant to 40 CFR 63.6625(f), the permittee shall install a non-resettable hour meter if one is not already installed.
- b) Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor fuel usage (gallons) a monthly basis.

5. Specific Record Keeping Requirements:

- a) Pursuant to 40 CFR 63.6655, the permittee shall keep the following records:
 1. A copy of each notification and report to comply with 40 CFR 63, Subpart ZZZZ.
 2. Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
 3. Records of all required maintenance performed on the air pollution control and monitoring equipment.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
 - b) Pursuant to 40 CFR 63.10(b)(1) and 40 CFR 63.6660(a), the permittee shall maintain records in a form suitable and readily available for expeditious review as specified in 40 CFR 63.10(b)(1). The permittee shall keep each record in hard copy or electronic form for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
 - c) Pursuant to 40 CFR 63.6655(e), the permittee shall keep records of the maintenance conducted to demonstrate that the permittee operated and maintained the engine and after-treatment control device (if any) according to its own maintenance plan.
 - d) Pursuant to 40 CFR 63.6655(f), the permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the permittee shall keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
 - e) Pursuant to 401 KAR 52:020, Section 10, the records of fuel usage and hours of operation shall be maintained.
 - f) Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.
6. **Specific Reporting Requirements:**
 - a) Pursuant to 40 CFR 63.6640(b), the permittee shall report each instance in which it did not meet the operating limitations in this permit. These instances are deviations from operating limitations in 40 CFR 63 Subpart ZZZZ and shall be reported in accordance with 40 CFR 63.6650.
 - b) Pursuant to 40 CFR 63.6650(f), the permittee shall report all deviations in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A).
 - c) Refer to Section F, Monitoring, Recordkeeping and Reporting Requirements.

SECTION C - INSIGNIFICANT ACTIVITIES

The activities within this group have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020 Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary. Process and emission control equipment at each insignificant activity subject to a general applicable regulation shall be inspected monthly and qualitative visible emission evaluation made. The results of the inspections and observations shall be recorded in a log, noting color, duration, density (heavy or light), cause and any corrective actions taken for any abnormal visible emissions.

<u>Description</u>		<u>Generally Applicable Regulation</u>
1.	Main fuel oil storage tank, 500,000 gallons capacity, point 05-01.	NA
2.	Fuel oil day tank, 40,000 gallons capacity, point 05-02.	NA
3.	Landfill garage fuel oil tank, capacity 6,000 gallons, point 05-03.	NA
4.	Landfill portable fuel oil tank, 2,000 gallons capacity, point 05-04.	NA
5.	Landfill garage portable fuel oil tank (yellow) 500 gallons capacity, point 05-06.	NA
6.	Emergency diesel generator fuel oil tank, 500 gallons capacity, point 05-20.	NA
7.	Diesel powered fire pump fuel oil tank, 500 gallons capacity, point 05-21.	NA
8.	FGD fixing plant portable gasoline tank (red) 250 gallons capacity, point 06-07.	NA
9.	Coal yard gasoline tank, 500 gallons capacity, point 06-09.	NA
10.	Flyash handling operations, pneumatic dry enclosed transfer, point 09 (08).	401 KAR 59:010/401KAR63:010
11.	Lime handling operations, other than point 14 (04).	401 KAR 59:010 and/or 401 KAR 63:010
12.	Wet ash and ponded ash handling and management.	401 KAR 63:010
13.	Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids.	NA
14.	The following equipment related to manufacturing and repair activities not resulting in the emission of hazardous air pollutants: brazing equipment, cutting torches, soldering equipment, welding equipment.	401 KAR 63:010
15.	Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to one percent by volume.	NA
16.	Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, which is on-site sewage treatment facility.	NA

Permit V-12-023

Page 31 of 46

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

	<u>Description</u>	<u>Generally Applicable Regulation</u>
17.	Operations using aqueous solutions containing less than one percent volatile organic compounds excluding hazardous air pollutants.	NA
18.	Maintenance activities associated with the repair of electrostatic precipitators, and scrubbers, and replacement of bags in baghouses, and replacement of filters, and repair of other filtration equipment.	401 KAR 63:010
19.	Maintenance activities associated with heat exchanger cleaning and repair.	NA
20.	Paved and unpaved roads and parking lots with public access.	401 KAR 63:010
21.	Laboratory fume hoods and vents used exclusively for chemical or physical analyses.	NA
22.	Combustion source flame safety purging on startup.	NA
23.	Water based adhesives that are less than or equal to five percent by volume volatile organic compounds, excluding hazardous air pollutants.	NA
24.	Unit 2 Mechanical draft cooling tower.	401 KAR 63:010

Permit V-12-023

Page 32 of 46

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. Particulate, sulfur dioxide, nitrogen oxides, and visible (opacity) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

Permit V-12-023

Page 33 of 46

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10].
3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10].
6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10].
9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality
Florence Regional Office
8020 Veterans Memorial Drive
Suite 110
Florence, Kentucky 41042

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Permit V-12-023

Page 36 of 46

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

- a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020, Section 3(1)(b), and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10].
- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - (2) The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
 - (4) New requirements become applicable to a source subject to the Acid Rain Program.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to Renewal permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020, Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].
- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10].
- i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) 2.].
- l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) 4.].
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) 1.].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
 - q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (1) Applicable requirements that are included and specifically identified in this permit; and
 - (2) Non-applicable requirements expressly identified in this permit.
2. Permit Expiration and Reapplication Requirements
- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
 - b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].
3. Permit Revisions
- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
 - b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.
4. Construction, Start-Up, and Renewal Compliance Demonstration Requirements
No construction authorized by this permit.

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. Testing Requirements

- a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.
- b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NO_x compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

7. Emergency Provisions

- a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit;and

SECTION G - GENERAL PROVISIONS (CONTINUED)

- (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - (5) This requirement does not relieve the source of other local, state or federal notification requirements.
 - b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
 - c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].
8. Ozone Depleting Substances
 - a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
 - b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.
9. Risk Management Provisions
 - a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:
 - RMP Reporting Center
 - P.O. Box 1515
 - Lanham-Seabrook, MD 20703-1515.
 - b. If requested, submit additional relevant information to the Division or the U.S. EPA.

Permit V-12-023

Page 42 of 46

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

SECTION J – ACID RAIN PERMIT

TITLE IV PHASE II ACID RAIN

ACID RAIN PERMIT CONTENTS

- 1) Statement of Basis
- 2) SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
- 4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II application, the Phase II NO_x Compliance Plan, and the Phase II NO_x Averaging Plan.
- 5) Summary of Actions

1. Statement of Basis:

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to 401 KAR 52:020, Permits, 401 KAR 52:060, Acid Rain Permit, and Federal Regulation 40 CFR Part 76.

PERMIT (Conditions)

Plant Name: East Bend Station
Affected Unit: 2

2. SO₂ Allowance Allocations and NO_x Requirements for the affected unit:

SO ₂ Allowances	Year				
	2012	2013	2014	2015	2016
Tables 2, 3 or 4 of 40 CFR Part 73	18,354*	18,354*	18,354*	18,354*	18,354*
NO_x Requirements					
NO_x Limits	Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO _x emissions averaging plan for this unit. Under this plan, this unit's NO _x emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.40 lb/MMBtu. In addition, this unit shall not have an annual heat input less than 50,700,000 MMBtu.				

*The number of allowances allocated to Phase II affected units by U. S. EPA may change under 40 CFR 73. In addition, the number of allowances actually held by an affected source in a unit may differ from the number allocated by U.S.EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO₂ allowance allocations identified in this permit (See 40 CFR 72.84).

Permit V-12-023

Page 44 of 46

SECTION J – ACID RAIN PERMIT (CONTINUED)

3. Comments, Notes, and Justifications:

1. Affected unit is one (1) dry bottom wall-fired boiler.
2. A NO_x Permit application for these units was received on June 16, 2003.
3. All previously issued Acid Rain permits are hereby null and void

4. Permit Application: Attached

The Phase II Permit Application the Phase II NO_x Compliance Plan, and the Phase II NO_x Averaging Plans are part of this permit and the source must comply with the standard requirements and special provisions set forth in the Phase II Application, the revised Phase II NO_x Compliance Plan, and the revised Phase II NO_x Averaging Plan.

Permit V-12-023

Page 45 of 46

SECTION K – CLEAN AIR INTERSTATE RULE (CAIR)

1. Statutory and Regulatory Authority:

In accordance with KRS 224.10-100, the Kentucky Energy and Environmental Cabinet issues this permit pursuant to 401 KAR 52:020, Title V permits, 401 KAR 51:210, CAIR NO_x Annual Trading Program, 401 KAR 51:220, CAIR NO_x ozone season trading program, and 401 KAR 51:230, CAIR SO₂ Trading Program.

2. Application and Requirements:

The CAIR application for the electrical generating unit was submitted to the Division and received on February 9, 2012. The standard requirements and special provisions set forth in the application are hereby incorporated into and made part of this CAIR Permit. [401 KAR 51:210, 401 KAR 51:220, and 401 KAR 51:230]. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

3. Unit Description

The affected unit is a dry bottom, wall fired boiler rated at 6,313 MMBtu/hour (Emission Unit 02). This unit has a capacity to generate 25 megawatts or more of electricity, which is offered for sale. This unit uses coal as the primary fuel source, and is used as base load electric generating unit.

4. Summary of Actions

The CAIR Permit is being issued as part of the Title V permit for this source. Public, affected state and U.S. EPA review will follow procedures specified in 401 KAR 52:100.

SECTION L – TRANSPORT RULE

On July 6, 2011, the U.S. EPA finalized the Cross-State Air Pollution Rule (CSAPR) "to identify and limit NO_x and SO₂ emissions within 32 states in the eastern, midwestern, and southern United States that affect the ability of downwind states to attain and maintain compliance with the 1997 and 2006 PM_{2.5} NAAQS and the 1997 ozone NAAQS."^[1] On August 21, 2012, the United States Court of Appeals for the D.C. Circuit issued a decision vacating the Cross-State Air Pollution Rule (CSAPR), ruling that EPA exceeded its statutory authority in promulgating the rule.

^[1] *Federal Register*, August 8, 2011 (FR 48217)