

COMMONWEALTH OF KENTUCKY
ENERGY AND ENVIRONMENT CABINET
DIVISION OF WATER
CASE NO. DOW-170001
AO NO. DOW-170001

IN RE: Kentucky Utilities Company

Responsible Party Address:

LG&E Building
220 West Main ST
Louisville, KY 40202

Facility/Violation Location:

E.W. Brown Station
Agency Interest ID No. 3148
815 Dix Dam Road
Harrodsburg, KY 40330

AGREED ORDER

WHEREAS, the parties to this Agreed Order, the Energy and Environment Cabinet (hereinafter "Cabinet") and Kentucky Utilities Company (hereinafter "KU"), state:

STATEMENTS OF FACT

1. The Cabinet is charged with the statutory duty of enforcing KRS Chapter 224 and the regulations promulgated pursuant thereto;
2. KU owns and operates E.W. Brown Station, an electric power generating station located at 815 Dix Dam Road in Harrodsburg, Mercer County, Kentucky (the "Facility");
3. KU holds KPDES Permit No. KY0002020 issued by the Cabinet's Division of Water ("DOW") for the Facility's wastewater discharge from the Auxiliary Pond used for management and

treatment of coal combustion residual ("CCR") transport water and scrubber wastewater;

4. In 2011, KU began the application process for a permit for a special waste landfill for disposal of CCR at the Facility. KU proposed to construct the new landfill over the top of a former CCR impoundment (the "Main Ash Pond") in a manner that would meet closure requirements for the Main Ash Pond. Groundwater monitoring began in 2011 to support that landfill permit application and included monitoring of several springs. The monitoring revealed elevated levels of certain metals in the groundwater associated with CCR disposal in the Main Ash Pond. As a result of these findings, KU submitted a Groundwater Assessment Plan in 2012 in accordance with regulations administered by the Kentucky Division of Waste Management ("DWM"). DWM approved this plan on May 1, 2013. A draft special waste landfill permit for the new landfill to be built over the Main Ash Pond was made available for public comment in late 2013. DWM responded to public comments and issued the final landfill permit on July 30, 2014 authorizing the construction of the new special waste landfill.

5. DWM included a condition in the July 30, 2014 special waste landfill permit requiring KU to submit a site wide Groundwater Remedial Action Plan ("GWRAP") to address the historic groundwater contamination prior to the issuance of an operating permit for the new landfill. In addition to the GWRAP, the landfill permit also requires implementation of: (1) the 2013 Groundwater Assessment Plan; (2) the Main Ash Pond Closure Plan; and (3) a specific groundwater monitoring plan for certain specified springs.

6. The GWRAP was submitted to DWM in March 2015. On May 7, 2015, the GWRAP was made available for public comment. By letter dated October 14, 2015, DWM approved the

GWRAP and issued a response to comments document. KU is currently implementing the remedial measures specified in the GWRAP. An operating permit was issued for Phase 1 of the new landfill on September 22, 2016.

7. On October 26, 2016, the Sierra Club and Kentucky Waterways Alliance (collectively "Sierra Club") sent a notice of intent ("NOI") to sue KU under Section 7002(a)(1)(B) of the Resource Conservation and Recovery Act ("RCRA") claiming that releases of contaminants from the Main Ash Pond that are the subject of the GWRAP, in conjunction with other discharges from the Facility associated with CCR management and disposal, "may present an imminent and substantial endangerment to health and the environment" for which Sierra Club is entitled to seek injunctive relief. As required by RCRA, the NOI was also sent to the Cabinet and United States Environmental Protection Agency to allow the governmental agencies an opportunity to review and take any appropriate action with respect to the claims of imminent and substantial endangerment.

8. The Cabinet has reviewed available testing and monitoring data on groundwater and surface water in the vicinity of the Facility, and DOW conducted additional surface water quality testing in November and December 2016. Additionally, DOW conducted fish tissue testing in Herrington Lake in the vicinity of the Facility in May 2016. That fish tissue testing identified elevated concentrations of selenium in fish tissue above Kentucky's recently approved selenium water quality standard for protection of aquatic life from chronic impacts.

9. In addition to the releases to groundwater that are the subject of the GWRAP and Main Ash Pond Closure Plan, the Cabinet has identified the permitted wastewater discharge from the Auxiliary Pond as a significant source of the selenium loading to Herrington Lake. The GWRAP

provides that one of the Remedial Action Objectives is for KU to "work with the DOW to develop a comprehensive approach to risk management that addresses the totality of surface water impacts from both groundwater and surface water discharges" and "in the meantime" to "pursue a strategy of reducing the total mass of [constituents of interest] entering the lake via the groundwater flow system."

10. Based upon the above investigations and testing, authorized representatives of the Cabinet have identified the following alleged violations of KRS Chapter 224 and the regulations promulgated pursuant thereto by the Facility. Specifically, the Cabinet alleges KU's violation of 401 KAR 10:031 Section 2 and KRS 224.70-110 due to KU directly or indirectly discharging, or causing or permitting to be discharged, a pollutant or substance that has caused or contributed to pollution of Herrington Lake, a water of the Commonwealth, in contravention of the standards adopted by the Cabinet or of the provisions of Chapter 224 or regulations promulgated thereunder, and KU's degradation of the waters in Herrington Lake, all as described in the Notice of Violation identified in paragraph 11 below.

11. On January 11, 2017, the Cabinet issued a Notice of Violation ("NOV") to KU for the discharges and degradation identified in paragraph 10 above and in the NOV. The NOV identified certain remedial measures to be completed by KU regarding those violations. A copy of the NOV is attached hereto as Exhibit 1.

12. KU does not admit to the violations described above but agrees to resolve the NOV allegations through payment of a civil fine and the development and implementation of corrective action plans and other remedial measures set forth herein to address any threat or potential threat to

human health and the environment associated with management and storage of CCR at its E.W. Brown Station.

NOW THEREFORE, in the interest of settling all civil claims and controversies involving the alleged violations described above, the parties hereby consent to the entry of this Agreed Order and agree as follows:

REMEDIAL MEASURES

13. KU shall continue to implement the previously approved GWRAP, Groundwater Assessment Plan, and Main Ash Pond Closure Plan set out in the special waste permit SW08400010.

14. KU shall continue to operate the previously approved remedial measures for the North Abutment Drain and the Main Ash Pond Toe Drain.

15. By the dates specified below, KU shall submit Corrective Action Plans (hereinafter "CAP") to the Cabinet for review, detailing the steps KU has taken and will take to address the matters raised in this Agreed Order and the notice of violation dated January 11, 2017. The CAP shall include plans, justification analysis, and implementation schedules for the following remedial measures:

A. By April 14, 2017, a CAP that provides:

- i. A plan for (1) the further investigation of sediments, surface water quality and biological receptors in Herrington Lake, including an appropriate assessment of human health and ecological risks, (2) an assessment of the sources of selenium impacts, and (3) a consideration of remedial actions, if necessary, to supplement the GWRAP, and a schedule for implementation of such plan for selenium impacts

found to be from the E.W. Brown Station.

- ii. Annual reporting on progress of actions required by the CAPs required by the Agreed Order.

B. By June 30, 2017, an Auxiliary Pond Discharge CAP that provides:

- i. A plan for eliminating the discharge of ash transport water as soon as possible as required by 40 CFR 423.13(h) and (k) along with a justification of the schedule;
- ii. A plan for actions to be taken in order to comply with the effluent limitation guidelines for scrubber wastewater as soon as possible as required by 40 CFR 423.13(g) and a schedule by which such actions shall be taken along with a justification of the schedule;
- iii. A plan for closure of the Auxiliary Pond under the standards of 40 CFR 257.101 to 257.103 and any applicable state regulations along with a deadline for completing the work and a justification of the schedule.

16. Upon review of each CAP, the Cabinet shall, in whole or in part, (1) approve or (2) disapprove and provide comments to KU identifying the deficiencies. Upon receipt of Cabinet comments, KU shall have thirty (30) days to revise and resubmit the CAP for review and approval. Upon resubmittal, the Cabinet may, in whole or in part, (1) approve or (2) disapprove and provide comments to KU identifying the deficiencies. KU shall strictly comply with the approved CAP and meet the deadlines and requirements created therein.

17. If at any time either party determines it is necessary to amend a CAP, the following will occur:

- A. If the Cabinet determines an amendment to a CAP is necessary, the Cabinet shall notify KU in writing that an amendment is necessary and will outline the reasons for the determination. The Cabinet shall give KU twenty (20) days from receipt of written notification to submit an Amended CAP for review and approval. Upon receipt of the Amended CAP, the Cabinet may, in whole or in part, (1) approve or (2) disapprove and provide comments to KU identifying the deficiencies.
 - B. KU may request an amendment to either CAP or both CAPs in writing outlining the reasons why the amendment is necessary. Upon receipt of a request to amend a CAP, the Cabinet shall respond in writing that it will (1) accept a proposed Amended CAP for review or (2) deny the request and state the reasons for the denial.
 - C. Upon receipt of the proposed Amended CAP, the Cabinet may in whole or in part, (1) approve or (2) disapprove and provide comments to KU identifying the deficiencies. Upon receipt of the Cabinet's comments, KU shall have thirty (30) days to revise and resubmit the Amended CAP for review and approval. If any part of the resubmitted Amended CAP is disapproved, the Cabinet may deny the request to amend the CAP.
18. If KU believes that Cabinet disapproval of a CAP in whole or in part is inconsistent with law or fact, it may request a hearing in accordance with KRS 224.10-420(2). Request of a hearing shall not excuse KU from implementing any provisions of the CAP that are not challenged.
19. The approved CAPs shall be subject to public notice by the Cabinet and the opportunity for public comment for a period of 30 days. Following the completion of the public comment period, the Cabinet will prepare a response to comment document that will be provided to

KU and all persons that submitted comments. The Cabinet shall notify KU of any changes to a CAP that it is requesting as a result of public comments, subject to KU's rights as set forth in paragraph 18.

20. KU shall strictly comply with the CAPs as finally approved and meet the deadlines and requirements created therein.

21. Notwithstanding the requirements set forth in the Auxiliary Pond CAP, more stringent deadlines or conditions may be imposed under the KPDES permit that is renewed for the Facility, and this Agreed Order shall not relieve KU from the obligation to fully comply with its KPDES permit.

CIVIL PENALTIES

22. Within thirty (30) days of entry of this Agreed Order by the Secretary or his designee, KU shall pay the Cabinet a civil penalty in the amount of twenty-five thousand dollars (\$25,000) for the alleged violations described in paragraphs 10 and 11 above.

23. KU shall pay stipulated civil penalties within thirty (30) days of receipt of written notice from the Cabinet for failure to comply with this Agreed Order as follows:

A. For failure to timely submit each CAP as set forth in paragraphs 15 and 17 of this Agreed Order, a stipulated penalty in the amount of two thousand five hundred dollars (\$2,500), unless the applicable deadline is extended in advance, in writing, by the Cabinet; An additional five hundred dollars (\$500) per day may be assessed for each day beyond the applicable deadline provided in this Agreed Order, unless the applicable deadline is extended in advance, in writing, by the Cabinet;

B. For each instance that KU does not meet a deadline or requirement created by a CAP or amended CAP, a stipulated penalty of one thousand dollars (\$1,000) may be assessed, unless the applicable deadline is extended in advance, in writing, by the Cabinet.

24. Stipulated penalties are in addition to and not in lieu of any other penalty which may be assessed by the Cabinet. The Cabinet may, in its discretion, waive stipulated penalties that would otherwise be due. The payment of stipulated penalties shall not alter in any way KU's obligation to complete the performance of the actions described in this Agreed Order.

25. If KU believes that a request for payment of stipulated penalties is erroneous or contrary to law, it may request a hearing in accordance with KRS 224.10-420(2). Such a request for a hearing does not excuse timely payment of the stipulated penalty. If an order is entered pursuant to KRS 224.10-440 that excuses payment, the Cabinet shall refund the payment to KU. Failure to pay the stipulated penalty shall be deemed an additional violation of this Agreed Order.

26. Payment of penalties shall be by cashier's check, certified check, or money order, made payable to "Kentucky State Treasurer." The check or money order shall note on its face the case number and KU's full name to ensure proper crediting of payments. All submittals and penalties, unless otherwise directed within this Agreed Order, shall be sent to the attention of Director, Division of Enforcement, Department for Environmental Protection, 300 Sower Blvd., Frankfort, Kentucky 40601.

MISCELLANEOUS PROVISIONS

27. This Agreed Order only resolves those alleged violations specifically described above. Other than those matters resolved by entry of this Agreed Order nothing contained herein shall be

construed to waive or to limit any remedy or cause of action by the Cabinet based on statutes or regulations under its jurisdiction and KU reserves its defenses thereto. The Cabinet expressly reserves its right at any time to issue administrative orders and to take any other action it deems necessary that is not inconsistent with this Agreed Order, including the right to order all necessary remedial measures, assess penalties for violations, and recover all response costs incurred, and KU reserves its defenses thereto.

28. This Agreed Order shall not prevent the Cabinet from issuing, reissuing, renewing, modifying, revoking, suspending, denying, terminating, or reopening any permit to KU and KU reserves its defenses thereto, except that KU shall not use this Agreed Order as a defense to any such actions.

29. KU waives its right to any hearing on the violations alleged herein. However, failure by KU to comply strictly with any or all of the terms of this Agreed Order shall be grounds for the Cabinet to seek enforcement of this Agreed Order in Franklin Circuit and to pursue any other appropriate administrative or judicial action under KRS Chapter 224 and the regulations promulgated pursuant thereto, and KU reserves all rights and defenses thereto..

30. The Agreed Order may not be amended except by a written order of the Cabinet's Secretary or his designee. KU may request an amendment by writing the Director of Division of Enforcement at 300 Sower Blvd., Frankfort, Kentucky 40601 and stating the reasons for the request. If granted, the amended Agreed Order shall not affect any provision of this Agreed Order unless expressly provided in the amended Agreed Order.

31. The Cabinet does not, by its consent to the entry of this Agreed Order, warrant or aver in any manner that KU's complete compliance with this Agreed Order will be deemed to result in compliance with the provisions of KRS Chapter 224 and the regulations promulgated pursuant thereto. Notwithstanding the Cabinet's review and approval of any plans or schedules formulated pursuant to this Agreed Order, KU shall remain solely responsible for compliance with the terms of KRS Chapter 224 and the regulations promulgated pursuant thereto, this Agreed Order, and any permit requirements.

32. KU shall give notice of this Agreed Order to any purchaser, lessee, or successor in interest prior to the transfer of ownership or operation (or both) of any part of the Facility occurring prior to termination of this Agreed Order, shall notify the Cabinet that such notice has been given, and shall follow all statutory and regulatory requirements for a transfer. Whether or not a transfer takes place, KU shall remain fully responsible for payment of all penalties and response costs and for performance of all remedial measures identified in this Agreed Order.

33. The Cabinet agrees to allow the performance of the above-listed remedial measures and payment of civil penalties by KU to satisfy KU's obligations to the Cabinet generated by the alleged violations described above.

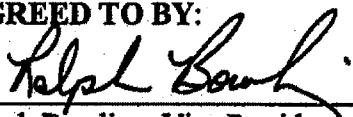
34. The Cabinet and KU agree that the remedial measures agreed to herein are facility-specific and designed to address the matters raised in this Agreed Order and to comply with the statutes and regulations cited herein. This Agreed Order applies specifically and exclusively to the Facility referenced herein and is inapplicable to any other site or facility.

35. This Agreed Order shall be of no force and effect unless and until it is entered by the Secretary or his designee as evidenced by his signature thereon.

TERMINATION

36. This Agreed Order shall terminate upon KU's completion of all requirements described in this Agreed Order. KU may submit written notice to the Cabinet when it believes all requirements have been performed. The Cabinet will notify KU in writing of whether it intends to agree with or object to termination. The Cabinet reserves its right to enforce this Agreed Order, and KU reserves its right to file a petition for hearing pursuant to KRS 224.10-420(2) contesting the Cabinet's determination.

AGREED TO BY:

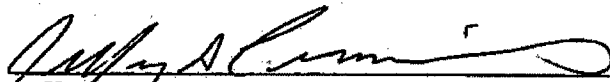


Ralph Bowling, Vice President, Power Production
Kentucky Utilities Company

1-30-17

Date

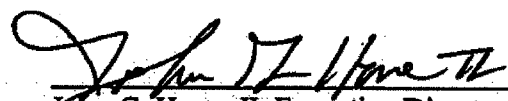
APPROVAL RECOMMENDED BY:



Jeffrey A. Cummins, Director
Energy and Environment Cabinet

1/30/2017

Date



John G. Horne II, Executive Director
Office of General Counsel

1/30/17

Date



R. Bruce Scott, Deputy Secretary
Energy and Environment Cabinet

1/30/17

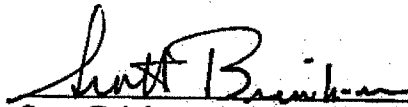
Date

ORDER

ORDER

Wherefore, the foregoing Agreed Order is entered as the final Order of the Energy and Environment Cabinet this 30th day of January, 20 17.

ENERGY AND ENVIRONMENT CABINET

A handwritten signature in cursive script, appearing to read "Scott Brinkman", is written over a horizontal line.

Scott Brinkman, Executive Secretary of Governor's Cabinet

CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of the foregoing AGREED ORDER was mailed,
postage prepaid, to the following this 30th day of January, 2017.

Gary Revlett, Director
Environmental Affairs
Kentucky Utilities Company
220 West Main Street
Louisville KY 40202.

And mailed, messenger to:

Mr. Jeffrey Cummins, Director
Division of Enforcement
300 Sower Blvd.
Frankfort, KY 40601

Hon. John G. Horne, II
Executive Director
Office of General Counsel
300 Sower Blvd.
Frankfort, KY 40601


Docket Coordinator

Distribution:

DOW
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BGD

MATTHEW G. BEVIN
GOVERNOR



CHARLES G. SNAVELY
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
300 SOWER BLVD
FRANKFORT KY 40601

AARON B. KEATLEY
COMMISSIONER

January 11, 2017

Certified No. 7013 3020 0001 0603 8950
Return Receipt Requested

Kentucky Utilities Co.
220 West Main Street
Louisville, KY 40202
ATTN: Michael Winkler

Re: Notice of Violation
AI ID: 3148
AI Name: KY Utilities Co - Brown Station
Activity ID: ENV20170001
Permit No. KY0002020
Mercer County, KY

Dear Mr. Winkler:

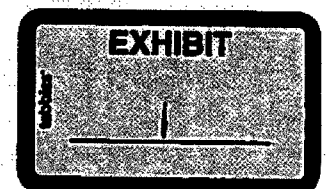
The Kentucky Department for Environmental Protection (DEP) has issued the enclosed Investigation Report and Notice of Violation for violations discovered at your facility. Please review this Notice of Violation carefully to ensure that all remedial measures are completed by the specified deadlines.

Your cooperation and attention to this matter is appreciated. If you have any questions, please contact me at 502-782-6348.

Sincerely,

Robert H Daniell, Supervisor
Frankfort Regional Office
Division of Water

Enclosure: Investigation Report/Notice of Violation



COMMONWEALTH OF KENTUCKY
ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
Division of Water

NOTICE OF VIOLATION

To: Kentucky Utilities Co.
220 West Main Street
Louisville, KY 40202
ATTN: Michael Winkler

AI Name: KY Utilities Co - Brown Station **AI ID:** 3148 **Activity ID:** ENV20170001
Discovery ID: CIV20150003 **County:** Mercer
Enforcement Case ID:
Date(s) Violation(s) Observed: 11/24/2015

This is to advise that you are in violation of the provisions cited below:

1 Violation Description for Subject Item AIO0000003148:

No person shall directly, or indirectly, throw, drain, run or otherwise discharge into any of the waters of the Commonwealth, or cause, permit or suffer to be thrown, drained, run otherwise discharged into such waters any pollutant, or any substance that shall cause or contribute to the pollution of the waters of the commonwealth in contravention of the standards adopted by the cabinet or in contravention of any of the rules, regulations, permits, or orders of the cabinet or in contravention of any of the provisions of this chapter. [KRS 224.70-110]

Description of Non Compliance:

EW Brown directly or indirectly discharged, or caused or permitted to be discharged, a pollutant or substance that has caused or contributed to pollution of a water of the Commonwealth in contravention of the standards adopted by the cabinet or of the provisions of Chapter 224 or regulations promulgated thereunder. On November 24, 2015 and December 4, 2015, spring water samples were collected at four locations surrounding the KU - E.W. Brown Generating Station. Analytical results from these spring samples identified selenium levels in HQ Spring and Briar Patch Spring above Kentucky's selenium water column criterion of 5.0 µg/L. The flow from these two springs enters Herrington Lake via surface water (HQ Stream) to HQ Inlet. On May 6, 2016, fish samples were collected from Herrington Lake adjacent to HQ Inlet. These fish samples were analyzed for total selenium content based on a whole body tissue analysis. Nine of the ten whole body fish tissue samples exceeded Kentucky's whole body fish tissue selenium criteria of 8.6 mg/kg. These analyses indicate a violation of the water quality standards of the Commonwealth and degradation of the waters adjacent to the facility.

The remedial measure(s), and date(s) to be completed by are as follows:

By April 14, 2017, submit to the Division of Water a Corrective Action Plan, including a written plan of action, including a monitoring plan, and a schedule of implementation describing the measures necessary to address this non-compliance. [KRS 224.70-110]

2 Violation Description for Subject Item AIOO0000003148:

Surface waters shall not be aesthetically or otherwise degraded. [401 KAR 10:031 Section 2]

Description of Non Compliance:

EW Brown has aesthetically or otherwise degraded surface waters. On November 24, 2015 and December 4, 2015, spring water samples were collected at four locations surrounding the KU - E.W. Brown Generating Station. Analytical results from these spring samples identified selenium levels in HQ Spring and Briar Patch Spring above Kentucky's selenium water column criterion of 5.0 µg/L. The flow from these two springs enters Herrington Lake via surface water (HQ Stream) to HQ Inlet. On May 6, 2016, fish samples were collected from Herrington Lake adjacent to HQ Inlet. These fish samples were analyzed for total selenium content based on a whole body tissue analysis. Nine of the ten whole body fish tissue samples exceeded Kentucky's whole body fish tissue selenium criteria of 8.6 mg/kg. These analyses indicate a violation of the water quality standards of the Commonwealth and degradation of the waters adjacent to the facility.

The remedial measure(s), and date(s) to be completed by are as follows:

By April 14, 2017, submit to the Division of Water a Corrective Action Plan, including a written plan of action, including a monitoring plan, and a schedule of implementation describing the measures necessary to address this non-compliance. [401 KAR 10:031 Section 2]

Violations of the above cited statute(s) and/or regulation(s) are subject to a civil penalty per day per violation. Violations carry civil penalties of up to \$25,000 per day per violation depending on the statutes/regulations violated. In addition, violations may be concurrently enjoined. Compliance with remedial measures and their deadlines does not provide exemption from liability for violations during the period of remediation, nor prevent additional remedial measures from being required.

If you have questions or need further information, write or call the undersigned:

Division of Water
Frankfort Regional Office
300 Sower Blvd
Frankfort, KY 40601
502-782-6348 (8:00 AM - 4:30 PM)
Robert H Daniell, Supervisor



Issued By:

Robert H Daniell, Supervisor
Date: January 11, 2017

How Delivered: Certified/Registered # 7013 3020 0001 0603 8950

Received

FEB 01 2017

File Room

Scanning Batch Sheet

Prepped by:	Jon Durbin	Return to:	Jon Durbin
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Color		11 x 17		Maps	
Duplex		CD		Recycle	
8.5 x 11	✓	Other			

Agency Interest (AI) Number:	3148
Program Code:	11
Document Type Code:	EOAORD
Function Area Code:	004
View Attribute:	2 - Public
Activity ID (Gray Bar):	ERF20150001
Assign To (Tempo Login):	durbinj
Document Title:	Executed Agreed Order (OGC) – 1/30/2017

Batch Name: _____

Air Quality		Comp. & Tech Asst.	Permit Support – Surface Water
Enforcement	✓	Compliance Lab Cert.	SRF & SPSP
Hazardous Waste		Construction & Compliance	Surface Water
Recycling & Local Asst.		Dam Safety & Floodplain	Waste Water Mun. Planning
Solid Waste		Engineering –Surface Water	Water Infrastructure
Superfund		Floodplain Mgmt.	Water Quality
Underground Storage Tank		Ground Water	Watershed Mgmt.
Capacity Development		Operational Permits	Wet Weather

Program Misc. Information:

County: Mercer

Facility: KY Utilities Co – Brown Station

Sent By: DENF