



Mr. Jeff DeRouen  
Executive Director  
Kentucky Public Service Commission  
211 Sower Boulevard  
Frankfort, KY 40602

RECEIVED

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PUBLIC SERVICE  
COMMISSION

**Kentucky Utilities Company**  
State Regulation and Rates  
220 West Main Street  
PO Box 32010  
Louisville, Kentucky 40232  
www.lge-ku.com

Robert M. Conroy  
Director - Rates  
T 502-627-3324  
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robert.conroy@lge-ku.com

November 8, 2010

**RE: *THE APPLICATION OF KENTUCKY UTILITIES COMPANY FOR  
CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY  
AND APPROVAL OF ITS 2009 COMPLIANCE PLAN FOR  
RECOVERY BY ENVIRONMENTAL SURCHARGE  
CASE NO. 2009-00197***

Dear Mr. DeRouen:

As indicated in the direct testimony of John N. Voyles at page 12 in the above-referenced docket, Kentucky Utilities Company (“KU”) committed to provide copies of the permit applications for ECR Project No. 30 once filed with the appropriate agencies. Enclosed please find an original and eight (8) copies of KU’s Ghent Station Landfill, 401 and 404 Permit Applications in the above-referenced docket.

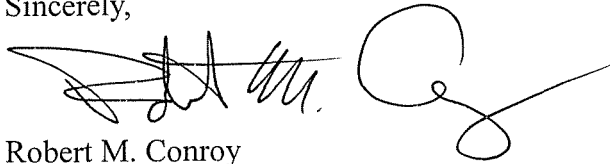
As the attachments are voluminous (comprising of a large bankers’ box with numerous maps and drawings of various sizes), KU has a copy of the attachments to each permit application available upon request.

In addition, as indicated in the data responses in the above-referenced docket, KU committed to provide copies of the ATC Associates Impoundment Facilities Assessment Report. Enclosed please find an original and eight (8) copies of the Final Assessment Report Letter in the above-referenced docket. Also enclosed please find nine (9) copies of the report appendices on cd.

Mr. Jeff DeRouen  
November 8, 2010

Should you have any questions concerning the enclosed, please contact me at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "R. M. Conroy". The signature is written in a cursive style with a large, prominent loop at the end.

Robert M. Conroy

Enclosures

cc: Parties of Record



**2009 GROWING SEASON  
VISUAL SITE ASSESSMENT REPORT  
28 IMPOUNDMENT FACILITIES**

**E.W. BROWN  
GHENT STATION  
GREEN RIVER STATION  
PINEVILLE STATION  
TYRONE STATION  
CANE RUN STATION  
MILL CREEK STATION  
TRIMBLE COUNTY STATION**

**E.ON U.S.**

**ATC PROJECT NO. 27.11000.9G11**

**MARCH 19, 2010**

PREPARED FOR:

**E.ON U.S.  
220 WEST MAIN STREET  
LOUISVILLE, KENTUCKY 40202**

**ATTENTION: MR. DAVID MILLAY P.E.**



**2009 GROWING SEASON  
VISUAL SITE ASSESSMENT REPORT  
28 IMPOUNDMENT FACILITIES**

**E. W. BROWN  
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PREPARED FOR:

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220 WEST MAIN STREET  
LOUISVILLE, KENTUCKY 40202**

**ATTENTION: MR. DAVID MILLAY P.E.**

March 19, 2010

E.ON U.S.  
220 West Main Street  
Louisville, Kentucky 40202  
502-627-2468 phone  
502-693-0479 fax  
David.Millay@eon-us.com

Attention: Mr. David Millay P.E.  
Civil Engineer

Re: **2009 Growing Season  
Visual Site Assessment Report  
28 Impoundment Facilities  
Various Kentucky Power Stations**  
ATC Project No. 27.11000.9G11

Dear Mr. Millay:

ATC Associates Inc. (ATC) has completed our 2009 Growing Season, Visual Site Assessments of 28 pond facilities, at eight E.ON U.S. power stations in Kentucky. This report includes 12 pond facilities classified as “dams” by the Kentucky Energy and Environment Cabinet, Division of Water, Dam Safety Section (KDSS), and 16 ponds which are not classified and do not have a hazard rating or an identification number.

Our field observations were made during the months of October and November, 2009. These assessments were performed in general accordance with safety inspection protocols published in “Guidelines for Maintenance and Inspection of Dams in Kentucky” prepared by the Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water, dated July 1985, and our proposal number 27-09-0044R dated September 24, 2009.

#### **Report Terminology**

The following terminology will be utilized in this report:

Pond: A facility consisting of an excavation, a soil embankment or a combination of both that impounds water or solids. A pond is typically composed of an area impounding water, an excavation slope or an impounding embankment and a spillway to discharge water. Descriptions of various pond configurations used by the US EPA are shown on Figure 1 (Appendix A); these descriptions will be utilized in this Assessment Report.

Embankment: A compacted earthen mound placed under controlled conditions that serve to impound water or solids. An embankment could be classified as either a dam or a berm depending of the height and volume of material retained.

Dam: An embankment that impounds water or solids that meets the KRS 151 definition. In general a dam is 25 or more feet in height or has an impounding capacity of fifty or more acre-feet at the lowest point on the top of the dam. Height is measured from the natural bed of the stream or watercourse at the downstream toe of the embankment to the low point in the top of the dam.

Berm: An embankment that impounds water or solids that does not meet the KY Department for Natural Resources and Environmental Protection definition of a dam.

#### **Assessment Activities**

The scope of these assessments was limited to an examination of readily observable surficial features of the ponds, a review of information provided to us and performing approximate height and slope measurements of the impoundments. Due to time constraints two field teams were deployed by ATC to perform the field assessments. Team number 1 consisted of Mark J. Schuhmann P.E. and Josh English E.I.T. Team number 2 consisted of Don Bryenton P.E. and Brent Miller. In general our field teams were accompanied by one or more E.ON U.S. representatives. Our assessments did not include any test drilling, material testing, precise physical measurements of pond features, detailed calculations to verify spillway capacities or embankment stability, or other engineering analyses. Although the visual assessments were conducted by experienced personnel in accordance with generally accepted methods, the assessments should not be considered as a warranty or guaranty of the future safety of the facilities.

All the ponds addressed by this assessment were located at existing or former power stations and generally consisted of an excavated pond enclosed on one or more sides with an earthen embankment. The ponds generally receive minimal storm water runoff, with the majority of water inflow resulting from the sluicing of CCP (Coal Combustion byProducts) and other power generation process water into the impoundments. **Table 1** summarizes the facilities assessed by ATC during this phase of work. The aerial photographs of the ponds shown in Appendices of this report were flown in 2008.

**Table 1- Summary of Assessed Ponds**

		Pond Type <sub>1</sub>	Secondary Spillway Present	No. Findings Growing Season Inspections	Condition Rating Growing Season Inspections <sub>2</sub>
E.W. Brown	Main Ash Pond	Cross Valley/Diked	Yes	3	S
	Auxiliary Pond	Cross Valley/Diked	Yes	3	S
Ghent	ATB 1	Side Hill	No	8	S
	ATB 2	Cross Valley/Diked	Yes	7	S
	Gypsum Stack	Diked	Yes	6	S
	Sediment	Cross Valley	Yes	10	F
	Secondary	Incised	Yes	3	S
	GSSRP	Incised	No	0	S
Green River	Main Ash Pond	Side Hill	No	17	P
	Scrubber Pond	Side Hill/Diked	No	8	S
	Ash Pond 2	Side Hill	No	18	P
	Finishing Pond	Cross Valley	No	11	U
	Coal Runoff Pond	Side Hill	No	8	F
Pineville	Main Ash Pond	Side Hill	No	4	F
Tyrone	Main Ash Pond	Side Hill/Incised	No	14	F
	Finishing Pond	Side Hill/Incised	No	16	P
Cane Run	Main Ash Pond	Diked/Incised	No	1	S
	Emergency Pond	Diked/Incised	No	6	P
	Dead Storage Pond	Diked/Incised	No	5	F
	Basin Pond	Diked/Incised	No	3	F
	Clearwell Pond	Incised	No	1	S
Mill Creek	Main Ash Pond	Diked/Incised	No	15	CP
	GPP Drainage Pond	Incised	No	3	F
	Clearwell Pond	Diked/Incised	Yes	2	F
	Emergency Pond	Incised	No	2	F
	Construction Runoff Pond	Side Hill/Incised	No	10	F
	Dead Storage Pond	Incised	No	2	S
Trimble County	Bottom Ash Pond	Diked/Incised	No	17	F

S – Satisfactory

F – Fair

CP- Conditionally Poor

P – Poor

U – Unsatisfactory

Note 1: See Appendix A

Note 2: See Pond Assessment Forms

This summary report includes the following items for each pond assessed:

- Site Vicinity Map
- Findings and Recommendations Table
- Dam Assessment Form
- Photographs
- Site Plan with Photographs
- Site Plan with GPS Locations

Tables of daily rainfall amounts preceding our field assessment dates are also included for each power station to allow the reader to infer the ground moisture conditions prior to our field assessment activities. This data was obtained through the [www.weatherunderground.com](http://www.weatherunderground.com) web site for the nearest rain gage to the power plant site.

### **Findings and Recommendations**

The findings and recommendations summarized in the appendices to this report are grouped by Power Station and by pond facility. The findings and recommendations are categorized with a priority level of High, Moderate, or Normal (described in “Findings and Recommendations” Tables). Several of the ponds observed were either under construction, not currently in operation or designated for closure within two years. These ponds may have a footnote assigned to priority rating of a specific finding or recommendation indicating one of the following:

1. Pond not currently in use – implement the item prior to the pond being placed back into service.
2. Pond currently under construction – resolve the item prior to increasing the operating water level in the pond.
3. Pond designated for closure within two years – implement the item only if the time frame for closure is delayed for more than 2 years from the assessment date

The recommendations provided in the Findings and Recommendations Tables are specific to each pond facility; however, we have developed five general recommendations that apply to all the facilities.

1. Prepare or update an Operation and Maintenance Manual for each facility. The manual will allow rapid assessments of any variations in the day to day operation of each facility, will assist in troubleshooting problems, and will provide a source of data for future plant personnel responsible for the management of the facility. **Normal Priority**
2. Continue regular facility inspections. These inspections will allow changes in the facility to be observed in a timely fashion and allow preventative measures to be taken as part of regular maintenance rather than on an emergency basis. The personnel conducting the inspections should receive training on the proper inspection techniques, the specific items that should be inspected, the frequency of inspections and the documentation that is required. The inspection regime should also include a regular (yearly) assessment by either outside consultants or E.ON US corporate personnel not routinely assigned to a power station. **High Priority**
3. Evaluate each unclassified pond facility to determine the appropriate hazard rating (low, moderate or high) using guidelines published in Department for Natural Resources and Environmental Protection, Division of Water, Engineering Memorandum No. 5. **Normal Priority**
4. Obtain a topographic map with elevation contours to assist in evaluating the facilities. **Normal Priority**
5. Evaluate each pond facility with an embankment to determine whether a redundant method to prevent or safely control impounded water from overtopping the embankment crest is needed. The Findings and Recommendations page for each pond describes whether the ponds have emergency or secondary spillways. Published literature indicates that progressive erosion of the embankment crest during an overtopping event is one of the most common causes of embankment failure. **Normal Priority**



### **Discussion**

The appendices to this report contain a page of Findings and Recommendations for each pond assessed. Discussion and clarification of specific recommendations are provided below.

Sixteen of the ponds addressed by this report are currently not classified by the KY Division of Water, Dam Safety Branch as “Dams”, and therefore do not have a State Dam ID number. However 401 KAR 4:030, which is the regulation which dictates the engineering standards for “*dams and all other impounding obstructions which might create a hazard to life and/or property*”, may apply to 10 of the 16 unclassified ponds, since most impound CCP or fluids using an obstruction and are not incised ponds. Therefore determining a hazard rating for each structure appears to be appropriate. A rating would also assist in prioritizing the remedial actions recommended in this report.

Trees, woody vegetation and brush were observed on the slopes, near the embankment toe and on the crest of some of the pond embankments we assessed. Kentucky Revised Statutes (KRS), Title XII – Conservation and State Development, Chapter 151 – Geology and Water Resources, Section .293 – Certificates of Inspection, Paragraph 8f, state that dam slopes be “free of trees”. ATC has discussed this requirement with State dam safety personnel. We understand their intent is to limit the chance that an uprooted tree would cause a breach of the dam, or to prevent tree roots triggering seepage through the dam. However, on several of these sites natural riverbank slopes with trees were present and were part of the impounding embankment. Each existing tree on riverbank slopes should be evaluated on an individual basis before removal. In general, ATC recommends that trees and large vegetation be removed from the following areas:

- Man Made Embankment Slopes,
- Dam Crest,
- Groin ditches,
- Spillway intake or discharge channels,
- Within 10 feet of the embankment toe.

Where tree removal is warranted we recommend the trees be cut flush with the ground surface. Our primary reason for this recommendation is to provide an impounding structure that is easily mowed and allows ready visual observations of all components to be made at all times. Large tree stumps remaining after cutting should be monitored for signs of seepage as the root mass decays. Several of the structures assessed currently have sparse to minimal grass cover on the slopes. Removal of trees and woody vegetation should always be accompanied with erosion control measures such as seeding and placing straw on slopes to establish a stand of grass.

Our Findings and Recommendations table for each structure include suggestions to “Evaluate” or “Monitor” specific items associated with each structure. In this report “Evaluate” should be interpreted to mean - additional data is required for a qualified individual such as an engineer to determine whether:

- Such an evaluation has been made previously,
- Past evaluations are valid for the current structure in its current configuration and use, and
- Additional engineering analyses are needed.

In this report “Monitor” should be interpreted to mean – observe that specific item during future follow-up assessments and during regular inspections to observe and document any changes noted from the preceding assessment.

We appreciate the opportunity to provide our assessment services to you. If you have any questions concerning information contained in this report, or if the condition of the facilities should change significantly from that described herein, please do not hesitate to call either of the undersigned.

Sincerely,

**ATC Associates Inc.**

Mark J. Schuhmann P.E.  
Principal Engineer  
KY License 12,500

Josh English, E.I.T.  
Staff Engineer

## **APPENDICES**

<b>APPENDIX A</b>	<b>GENERAL INFORMATION</b>
<b>APPENDIX B</b>	<b>E. W. BROWN</b>
<b>APPENDIX C</b>	<b>GHENT STATION</b>
<b>APPENDIX D</b>	<b>GREEN RIVER STATION</b>
<b>APPENDIX E</b>	<b>PINEVILLE STATION</b>
<b>APPENDIX F</b>	<b>TYRONE STATION</b>
<b>APPENDIX G</b>	<b>CANE RUN STATION</b>
<b>APPENDIX H</b>	<b>MILL CREEK STATION</b>
<b>APPENDIX I</b>	<b>TRIMBLE COUNTY STATION</b>

# **Special Waste Landfill Application**



## ENERGY AND ENVIRONMENT CABINET

DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WASTE MANAGEMENT  
200 FAIR OAKS, 2nd FLOOR  
FRANKFORT, KY 40601  
TELEPHONE NUMBER (502) 564-6716

Application For A  
Special Waste Landfill Permit  
Form DEP 7094A (5/92)

### GENERAL INFORMATION

- 1 **USE OF THIS APPLICATION** -This form is to be used to apply for a new special waste landfill permit or for a modification of an existing special waste landfill permit. Please type or print legibly in permanent ink.
- 2 **PREPARATION ASSISTANCE** -Questions regarding this form may be directed in writing to the Division of Waste Management, Solid Waste Branch at the address listed above, or by calling (502) 564-6716.
- 3 **SUBMISSION** -Submit the original and three (3) copies of the completed form to the Division of Waste Management at the address listed above. The document must be free of errors. Also, submit the following plans:
- 4 **LAWS AND REGULATIONS** -Applicants are expected to understand and comply with all laws and regulations applicable to special waste facilities.



**ADMINISTRATIVE INSTRUCTIONS  
FOR THE ENGINEERING DRAWINGS**

1. The cover sheet shall bear the professional engineers seal, original signature, and date.
2. The Division requires that the maximum plan sheet not exceed 24" x 36".
3. Each plan sheet should have a title block in the lower right corner. The title block should contain: sheet title, facility title, applicant name, address, and the engineering firm's name and address.
4. Each plan sheet should have a latest revision date block showing all revision dates.
5. Each sheet shall have the appropriate scale to show all required detail.
6. The plan cover sheet shall include an index of plans, the facility name, county, and application number. Show each drawing title on the index of plans. The cabinet recommends the use of the page number system suggested in this application.
7. Each set of plans shall include a legend of all drafting symbols used.
8. All lettering and drafting details shall be legible on reduced scale plans.
9. Each plan sheet shall contain a common stationed straight baseline or offset baseline and a north arrow.
10. Match lines should refer to the appropriate sheet numbers containing the other corresponding match line.
11. The plan sheets should clearly show the 1000 by 1000 foot grids referenced to an established site specific bench mark.
12. Show survey grid locations and reference major plan sheets on all cross-sections.

APPLICATION FOR A SPECIAL  
WASTE LANDFILL PERMIT

SECTION	DESCRIPTION
A.	General Information
B.	Ownership and Past Performance Information
C.	Operational and Permit Information
D.	Siting Information
E.	Design Plans
F.	Narrative
G.	Liner Design
H.	Geologic and Hydrogeologic Information
I.	Soils Information
J.	Construction Quality Control Plan
K.	Recordkeeping and Reporting
L.	Surface Water, Groundwater, and Corrective Action
M.	Closure, Closure Care and Performance Bond
N.	Permit Preparation Information
O.	Public Notices
P.	Certification

APPLICATION FOR A SPECIAL WASTE LANDFILL PERMIT

A. GENERAL INFORMATION

APPLICATION NO. \_\_\_\_\_ (LEAVE BLANK ON FIRST SUBMISSION)  
FEE SUBMITTED \$ \_\_\_\_\_ COUNTY \_\_\_\_\_ DATE \_\_\_\_\_  
Method of Payment: \_\_\_\_\_ Check \_\_\_\_\_ Certified Check \_\_\_\_\_ Money Order No. \_\_\_\_\_

1 Applicant: *Kentucky Utilities, an E.ON-U.S. company*

Address: *220 West Main Street*

City: *Louisville* State: *Kentucky* Zip Code: *40202*

Phone No. ( 502 ) 627-4659 \_\_\_\_\_

2 Name of Facility: *Ghent Generating Station*

Address: *9485 Highway 42 East*

City: *Ghent* State: *Kentucky* Zip Code: *41045*

Phone No.( 502 ) 347-4001 \_\_\_\_\_

3 Operator of Facility (If different from applicant)

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Phone No.( \_\_\_\_ ) \_\_\_\_\_

4 Name of Property Owner (s) Address: *Kentucky Utilities, an E.ON-U.S. company*

Address: *220 West Main Street*

City: *Louisville* State: *Kentucky* Zip Code: *40202*

Phone No.( 502 ) 627-4659 \_\_\_\_\_



List information concerning additional property owners in Attachment 1.

*See Attachment 1*

5. List information concerning owners of mineral rights in Attachment 2. Include name of property owner, address, city, state, zip code, and phone number.

*See Attachment 2*

6. If an existing special waste landfill, designate the type of modification application:

*Not Applicable*

\_\_\_\_\_ Vertical Expansion

\_\_\_\_\_ Horizontal Expansion

\_\_\_\_\_ Closure

\_\_\_\_\_ Groundwater Monitoring

\_\_\_\_\_ Other. Describe \_\_\_\_\_

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7. Provide, as Attachment 3, a list of all adjacent property owners. Include name, address, city, state, zip code, and phone number.

*See Attachment 3*

8. Provide, as Attachment 4, a copy of the deed or option to the property and a copy of the lease showing a five (5) year right of re-entry following cabinet approved closure of the facility.

*See Attachment 4*

9. Provide, as Attachment 5, a description of the facility's impact on transportation routes, prime agricultural lands, water resources, historic properties, and endangered or threatened species.

*See Attachment 5*

10. List, in Attachment 6, any variances applied for. Include a cite for each regulation for which the applicant proposes to vary

*See Attachment 6*

11. Provide, as Attachment 7, a notarized statement from applicable jurisdictions that the proposed facility complies with all local planning and zoning laws.

*See Attachment 7*

12. Provide, as Attachment 8, a description of assistance provided by the local fire district.

*See Attachment 8*

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**B. OWNERSHIP AND PAST PERFORMANCE INFORMATION**

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1. Indicate by checking the appropriate blank, the legal organizational structure of the applicant.

Proprietorship

Partnership  General  Limited

Corporation

Joint venture

Governmental agency. Type  (City, County, State, Federal)

Other. Describe: \_\_\_\_\_

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2. If the owner is a corporation, is it registered with the Kentucky Secretary of State? *Yes*

3. For the applicant and each person meeting the definition of key personnel, provide a Past Performance Information form as required by KRS 224.40-330(1) and (3). The Cabinet has developed form DEP 7094J for submittal of this information. Complete this form and include it as part of this application as **Attachment 9**.

*See Attachment 9*

NOTE: DEP Form No. 7094J may be obtained by contacting the Division of Waste Management at the address specified on the General Instructions" page of this application.

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**C. OPERATIONAL AND PERMIT INFORMATION**

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1. Complete the waste information below and in Attachment 10.
- |                                   |                        |                      |
|-----------------------------------|------------------------|----------------------|
| Estimated Average Daily Fill Rate | <i>8,300 TONS/DAY</i>  | <i>7,100 CY/DAY</i>  |
| Estimated Maximum Daily Fill Rate | <i>12,450 TONS/DAY</i> | <i>10,650 CY/DAY</i> |
| Estimated Disposal Rate           | <i>2.155 MTONS/YR</i>  | <i>1.844 MCY/YR</i>  |
| Site Life                         | <i>28 YEARS</i>        |                      |
| Total Site Volume                 | <i>51.46 MCY</i>       |                      |
| Number of acres to be filled:     | <i>240.5 ACRES</i>     |                      |
| Number of acres to be permitted:  | <i>913 ACRES</i>       |                      |

*See Attachment 10*

2. For industrial facilities, complete the following:

- (a) List the major U.S. Department of Commerce Standard Industrial Codes.

*SIC 4911*

- (b) Provide, as Attachment 11, the description of the raw materials used for production and the generation process for each waste.

*See Attachment 11*

- (c) Describe the physical; chemical; and, if applicable, biological characteristics of the waste. Also, provide a TCLP analysis of the wastes. Label as Attachment 12.

*See Attachment 12*

3. Provide, as Attachment 13, a list of all equipment that is to be used at the facility.

*See Attachment 13*

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**D. SITING INFORMATION**

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1. Provide directions to the site using roads or highways from a commonly known landmark

*The proposed site may be accessed from Exit 55 on Interstate 71 by traveling north onto State Highway 1039 for approximately 5.8 miles, west onto United States Route 42 for approximately 4.4 miles, then turn right at security entrance for Ghent Generating Station.*

2. Center of Landfill Location:

Latitude:  $38^{\circ} 43' 27.53''$       Longitude:  $-85^{\circ} 00' 33.42''$

Nearest Community: *Ghent, Kentucky*

Nearest Public Road Intersection: *Montgomery Road and United States Route 42*

Nearest Named Stream: *Agniels Creek and Stephens Branch*

3. Provide an original current USGS 7.5 minute topographic map, as **Attachment 14**, showing the existing or proposed waste boundaries and property boundaries. Show the locations of the following features located within a one mile radius of the waste boundaries:

- a. all surface water intake and discharge structures
- b. all waste management, storage, processing, or disposal facilities
- c. all injection wells
- d. all wells, springs, ephemeral, intermittent, and perennial streams, other surface water bodies, and drinking water wells
- e. airports
- f. fault areas
- g. sinks or sinkholes

*See Attachment 14*

4. (a) Show the following on a site map of a scale 1" = 400' for existing or proposed facilities and label as **Attachment 15**. (Check blanks, if applicable):

XXX Property lines  
XXX Adjacent property owners  
XXX Permit area  
XXX Fill area  
XXX Surrounding residences (within 1500' of the waste boundary)  
N/A 100 year floodplain  
N/A Mine works  
XXX Un-Plugged wells  
XXX Gas, sewer and water lines  
N/A Cultural or historic resources listed, or eligible for listing on the Natural Register of Historic Places  
XXX Known archaeological sites  
XXX Critical habitats of federally protected threatened and endangered species  
XXX Wetlands

- (b) Provide, as **Attachment 16, 17, and 18**, the published information to confirm the presence or absence of archaeological sites, critical habitats and wetlands, respectively.

*See Attachment 16, 17, and 18*

5. Include a general county highway map published by the Kentucky Transportation Cabinet showing the location of the site label as **Attachment 19**.

*See Attachment 19*

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## E. DESIGN PLANS

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Submit an original and 3 copies of the plans showing the design of the site. Label as **Attachment 20**.

*See Attachment 20*

Number the drawings as follows:

1. A drawing of the entire site on one sheet showing:
  - o Current site conditions
  - o Site development plan including buffer zones
  - o Location of monitoring points for:
    - Surface Water
    - Ground Water
    - Methane; and
    - Baselines

2. Site plans drawn to 1 inch = 100 feet (or Cabinet-approved alternative scale) showing:
  - Development Plan
  - Location of monitoring points
  - Baseline or off-set baseline
3. Cross-Sections at:
  - 100 Foot intervals
  - Vertical scale of 1 inch = 10 feet
  - Horizontal scale of 1 inch = 100 feet
4. Drawing of the profile along each baseline.
5. Proper site development including the sequence of filling (i.e. units, phases, working areas).
6. Construction details.
7. Include typical details for the following features of the cell:
  - Lifts
  - Liners (if required)
  - Final Cover

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## F. NARRATIVE

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1.
  - a) Will waste be placed within 250 feet of an intermittent or perennial stream? *Yes for streams identified under the 404/401 Permit Application.*
  - b) If yes, enclose the 401 Water quality certification that has been issued pursuant to 401 KAR 5:029 through 5:031. Label as **Attachment 21**.

*See Attachment 21*
2. Is the waste disposal area within:
  - a) The zone of collapse of deep-mine workings or within the critical angle of draw? *No*
  - b) 250 feet of a karst Terrain feature? *Yes, see item L.2.g herein*
  - c) 100 feet of the property line? *No*
  - d) 250 feet of a residence? *No*
  - e) 50 feet of a sewer, or water line? *Yes, the Carroll County Water District pipeline will be relocated to provide a minimum of 50 feet from the waste boundary*
  - f) 250 feet of an unplugged well (other than monitoring)? *No*

3. Is the depth to the seasonal high groundwater table to the bottom of the liner system or the waste for those residual landfills without liners four feet or greater? *Not applicable. The landfill will have a liner.*
4. a) Does the leachate analysis indicate the presence of any metal in excess of drinking water standards? *A leachate analysis is not available because the facility has not been constructed. A liner and final cover system is proposed to collect and minimize leachate, respectively*  
b) If yes, will the depth from the bottom of the waste to the seasonal high groundwater table exceed 5 feet? *See items 3 and 4a above.*
5. a) Is this proposed site located in the 100 year floodplain? *No, see Attachment 22*  
b) If yes, enclose a report describing how you will meet Section 2 of 401 KAR 30:031 concerning floodplains. Label as Attachment 22.  
  
*See Attachment 22*
6. Is any proposed waste cell within 200 feet of a fault that has had displacement in holocene time? *No*
7. Enclose as Attachment 23, a description of the surface water controls which meet the Environmental Performance Standards.  
  
*See Attachment 23*
8. Describe, in Attachment 24, the potential for gas emissions and odors based on the waste characteristics and the proposed landfill design. If applicable, describe the proposed explosive gas monitoring program.  
  
*See Attachment 24*
9. Describe, in Attachment 25, the procedures to control access by the public.  
  
*See Attachment 25*
10. Describe, in Attachment 26, how the applicant will comply with working face requirements.  
  
*See Attachment 26*
11. Complete the information requested below for placement on the landfill sign at the landfill entrance as required by 48:090 Section 14: *Not Applicable per 401KAR45:110. The landfill is not open to the public.*

Landfill Name: *N/A*

Name of Owner: *N/A*

Name of Operator: *N/A*

Hours to Receive Waste: *N/A*

Days to Receive Waste: *N/A*

Permit Number(To be assigned by Division upon Permit Issuance): *N/A*

Emergency Telephone Number: *N/A*



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## G. LINER DESIGN

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1. If applicable, submit, as Attachment 27, the design specifications for the bottom liner.

*See Attachment 27*

2. Enclose the risk analysis study showing how the proposed bottom liner design will meet the environmental performance standards of 401 KAR 30:031. specific attention should be given to Sections 5 and 6 of 401 KAR 45: 160 concerning protection of groundwater. Label as Attachment 28.

*See Attachment 28*

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## H. GEOLOGIC AND HYDROGEOLOGIC INFORMATION

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1. Provide, in Attachment 29, a description of the type, texture, thickness, and range in thickness of unconsolidated materials within the disposal area.

*See Attachment 29*

2. Provide the following information for the regional bedrock geologic structure.

*Note that the information used to prepare the following responses came primarily from online information for the site area from the Kentucky Geological Survey Geologic Map Service accessed at various times during the year, 2009.*

Strike and dip of bedrock: *Based on structure contours on the top of the Kope Formation, there are structural high areas to the south and to the east of Carroll County and a structural low at Carrollton, which is on the northern border and near the western side of the County. Strike in the County therefore varies from almost due north to northeast to east northeast as you progress south along the eastern border and west along the southern border and dip varies respectively from generally due west at about 60 feet per mile (along the Ohio River), to west-northwest to northwest at about 80 to 100 feet per mile, to north-northwest at about 120 feet per mile.*

Attitude of faults: *The strike for most of the fault traces is south 65° east. The faults are normal faults with downthrown sides reported to both the north and the south. There is no indication of the dip of the fault surfaces.*

Location of faults relative to the site: *The closest faults in the area are a group of roughly parallel normal faults located about 15 miles south of the site.*

Has fault displacement occurred in holocene times? *No*

Attitude of folds? *No folds were identified in the online information for the region.*

Location of fold relative to site: *Not Applicable*

Jointing trends: *No joint trends were identified in the online information for the region.*

3. Provide the following information for the site specific geologic structure.

Strike and dip of bedrock: *There are two structure contours on top of the Kope Formation in or near to the site. The higher is an elevation 700 feet contour that forms a loop that almost turns back on itself, forming a structural high, on the northeast corner of the site that extends back off of the site to the east northeast. The lower elevation 680 feet contour occurs to the south and west of the site and it undulates, indicating that the rock is relatively flat lying in the area and resulting in significant variations in dip across the site. Strike varies from almost east-west to north south. Dip is basically radial from the high in the northeast corner of the site, varying from approximately due south to southwest to west to northwest on the site at inclinations that vary approximately from 1 foot in 180 feet to almost 1 foot in 400 feet.*

Attitude of faults: *Not Applicable*

Location of faults relative to the site: *Not Applicable*

Has fault displacement occurred in holocene times? *Not Applicable*

Attitude of folding: *Not Applicable*

Location of fold relative to site: *Not Applicable*

Joint attitudes: *No significant rock outcrops on site to measure joints.*

Joint spacing: *No significant rock outcrops on site to measure joints.*

4. Provide, as **Attachment 30**, a description of the influence of fracture zones on the infiltration and movement of water and groundwater.

*See Attachment 30*

5. Provide, as **Attachment 31**, a minimum of two (2) geologic cross sections drawn with vertical exaggeration using published data, bedrock outcrops and rock core boring information. This drawing must adequately illustrate the geology of the site and include the season high groundwater table and rock outcrops.

*See Attachment 31*

6. List on **Attachment 32**, any extractable coal seams or other minerals of economic value beneath the site.

*See Attachment 32*

7. List on Attachment 33, any active or inactive deep mines located within 1,500 feet of the waste boundaries.

*See Attachment 33*

8. Provide, as Attachment 34, all rock core log data.

*See Attachment 34*

9. Provide, as Attachment 35, a map of geologic features and rock coring locations for the waste disposal site, including the area 1,500 feet beyond the waste boundary. This map is to be of a scale of one (1) inch equals four hundred (400) feet. Include the following information:

*See Attachment 35*

- Geologic units
- Rock outcrop
- Surface depressions
- Sinkholes
- Springs
- Injection wells
- Water withdrawal wells
- Surface contours
- Location of rock corings
- Legend to include symbols
- Bar scale
- Date
- North arrow

10. Provide, as Attachment 36, a hydrogeologic characterization of the site. This characterization must include data procedures, calculations, and the following information:

*See Attachment 36*

A. description of the hydrogeologic characteristics of the:

- Uppermost aquifer
- Geologic units hydraulically connected to the uppermost aquifer Field Test Data for:
- Hydraulic conductivity
- Storage coefficient
- Transmissivity
- Groundwater hydraulic gradient
- Groundwater hydraulic velocity

Based on:

- Multiple well aquifer tests
- Piezometer test evaluation
- Core evaluation
- Tracer studies (Karst Areas)
- Another cabinet-approved method

Characterization of karst conditions for:

- Diffuse flow conditions
- Discrete flow conditions
- List on Attachment 37, all springs and upgradient wells

*See Attachment 37*

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## I. SOILS INFORMATION

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1. List, on Attachment 38, the type, thickness, and range in thickness of unconsolidated materials. The applicant may submit a cross-section in lieu of completing attachment.

*See Attachment 38*

2. Show, on Attachment 39, a soils inventory consisting of a description of the total volume and source of borrow material available, the total estimated volume and source of required daily cover, interim cover, long-term cover, final cover, and low permeability soils.

*See Attachment 39*

Also, show the soils as determined by the approved site investigation: location, depth, thickness, classification of soils for engineering purposes, particle size distribution, atterburg limits, optimum moisture, permeability, and recoverable volume in compacted cubic yards for each soil classification and permeability.

3. Provide, as Attachment 40, a soils inventory map at a scale of one (1) inch equals 400 feet, depicting the distribution of the soils that is keyed to a list of the soils by engineering classification. The approximate volume and depth of each type of soil shall be recorded on the map.

*See Attachment 40*

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## J. CONSTRUCTION QUALITY CONTROL PLAN

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1. Describe, in Attachment 41, the Construction Quality Control (CQC) Plan as required by 45: 110 Section 2.

*See Attachment 41*

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## K. RECORDKEEPING AND REPORTING

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1. Enclose, as Attachment 42, the landfill record keeping and reporting system. The applicant may use the record keeping forms provided by the Cabinet or submit a different form for review by the Cabinet.

*See Attachment 42*

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## I. SURFACE WATER, GROUNDWATER, AND CORRECTIVE ACTION

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1. Submit as Attachment 43, the Surface Water Monitoring Plan as required by 401 KAR 45: 110 and 401 KAR 45:160. At a minimum, the plan must include:

*See Attachment 43*

- a) The proposed locations of the monitoring points shown on the site plans.
- b) A written description of how the monitoring point locations ensure that sampling will characterize the quality of the water unaffected by the landfill, as well as determining if water leaving the landfill as surface drainage is contaminated with leachate.
- c) A description of sampling protocol and analytical parameters.
- d) A monitoring schedule and list of analytical parameters.
- e) A sample form for reporting results of the analyses to the Division.
- f) Documentation that the applicant currently holds or has applied for a K.P.D.E.S. permit for all structures to be used to control stormwater run-off and all point source discharges.
- g) Provide the information requested in Attachment 43A, concerning location of the monitoring points.

*See Attachment 43A*

2. Submit, as Attachment 44, a Groundwater Monitoring Plan that meets the requirements of 401 KAR 45:110 and 401 KAR 45:160. At a minimum that plan must provide the following information:

*See Attachment 44 except for item g*

- a) A list and description of the specific aquifer(s) proposed for monitoring.
- b) The number, location, and depth of proposed monitoring points. Show the locations of the monitoring points on the site plans.
- c) Provide a brief discussion of the groundwater quality that currently exists based on the Groundwater Quality Characterization required by 401 KAR 45:160.
- d) Provide a Groundwater Sampling and Analysis Plan which describes the procedures and techniques designed to accurately measure groundwater quality upgradient and downgradient of the waste disposal area. Include a discussion regarding the chain of custody, as well as field and lab quality assurance and quality control.
- e) Provide a monitoring schedule and list of analytical parameters in accordance with 401 KAR 45:160 Section 8.
- f) Provide monitoring well construction specifications which meet the requirements of 401 KAR 45:160 Section 3.
- g) Is the proposed special waste disposal site located in karst terrain? *No significant karst features. A site reconnaissance with KY-DWM indicated some epi-karst*

*development. A later evaluation indicated that the epi-karst on-site was limited and drainage was shallow.*

If yes, the groundwater monitoring plan must include dye trace studies to determine the nature and extent of karst drainage beneath the site and proposed monitoring locations

- h) Provide the information requested in Attachment 44A, concerning proposed well locations and depth.

*See Attachment 44A*

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**M. CLOSURE, CLOSURE CARE AND PERFORMANCE BOND**

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1. Submit as Attachment 45, the specifications of the closure cap as required by 45:110 Section 5 and 401 KAR 30:031.

*See Attachment 45*

2. Applicants must enclose the risk analysis study showing how the proposed cap will meet the environmental performance standards of 401 KAR 30:031, especially Sections 4, 5, and 6 concerning surface and groundwater. Address each of the factors listed in 401 KAR 45:110 Section 5. Label as Attachment 46.

*See Attachment 46*

3. Submit as Attachment 47, the closure plan as required.

*See Attachment 47*

4. Submit in Attachment 48, the post-closure plan as required by 45:110, Section 5.

*See Attachment 48*

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**N. PERMIT PREPARATION INFORMATION**

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1. Engineer: *Gary F. Brendel*  
Kentucky Registration No.: *26926*  
Address: *385 East Waterfront Drive*  
City: *Homestead* State: *PA* Zip Code: *15120*  
Company Name: *GAI Consultants, Inc.*  
Phone No.: *724-387-2170 x2701*
2. Geologist or Geotechnical Engineer: *Robert J. Turka*  
Address: *385 East Waterfront Drive*  
City: *Homestead* State: *PA* Zip Code: *15120*  
Company Name: *GAI Consultants, Inc.*  
Phone No.: *724-387-2170 x2737*



- 3. Indicate the individual(s) authorized to make any necessary corrections to this application and to receive related correspondence from the Division:

Name: *Paul Puckett, Kentucky Utilities, an E.ON U.S. company*

Address: *220 West Main Street*

City: *Louisville* State: *KY* Zip Code: *40202*

Phone No.: *(502) 627-4659*

**O. PUBLIC NOTICE**

- 1. Public notices are required for a new site or a significant expansion to an existing site in accordance with KRS 224.40-310. Draft notices are found in **Attachments 49 and 50**. Complete the public notice forms; however, only those applicants notified by correspondence from the Cabinet may publish the notices.

*See Attachments 49 and 50*

**P. CERTIFICATION**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted in, to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations."

*Jeffrey E. Joyce*  
Original Signature of Responsible Official

*4/30/2010*  
Date

*Jeff Joyce*  
Typed Name of Responsible Official

*General Manager, Ghent Generating Station*  
Title

Name of Applicant: *Kentucky Utilities, an E.ON-U.S. Company*

Subscribed and sworn to before me by *Jeffrey E. Joyce*

Notary Public Signature *Deann S. Stockdale*

My Commission Expires *7/31/2010*

**Section 401  
Water Quality Certification  
Application**

COMMONWEALTH OF KENTUCKY  
NATURAL RESOURCES & ENVIRONMENTAL PROTECTION CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WATER

APPLICATION FOR PERMIT TO CONSTRUCT ACROSS OR ALONG A STREAM  
AND / OR WATER QUALITY CERTIFICATION

Chapter 151 of the Kentucky Revised Statutes requires approval from the Division of Water prior to any construction or other activity in or along a stream that could in any way obstruct flood flows or adversely impact water quality. If the project involves work in a stream, such as bank stabilization, dredging or relocation, you will also need to obtain a 401 Water Quality Certification (WQC) from the Division of Water. This completed form will be forwarded to the Water Quality Branch for WQC processing. The project may not start until all necessary approvals are received from the KDOW. For questions concerning the WQC process, contact the WQC section at 502/564-3410.

If the project will disturb more than 1 acre of soil, you will also need to complete the attached Notice of Intent for Storm Water Discharges, and return both forms to the Floodplain management Section of the KDOW. This general permit will require you to create an implement an erosion control plan for the project.

1. OWNER: E.ON-US; Attn: W. Paul Puckett  
Give name of person(s), company, governmental unit, or other owner of proposed project.  
MAILING ADDRESS: 220 West Main Street  
Louisville, KY 40232  
TELEPHONE #: (502) 627-4659 EMAIL: Paul.Puckett@eon-us.com
2. AGENT: Stantec Consulting, Inc., Attn: Stephen Hall  
Give name of person(s) submitting application, if other than owner.  
ADDRESS: 350 Missouri Avenue, Suite 100  
Jeffersonville, IN 47130  
TELEPHONE #: (812) 285-4060 EMAIL: Stephen.Hall@stantec.com
3. ENGINEER: \_\_\_\_\_ P.E. NUMBER: \_\_\_\_\_  
Contact Division of Water if waiver can be granted.  
TELEPHONE #: \_\_\_\_\_ EMAIL: \_\_\_\_\_
4. DESCRIPTION OF CONSTRUCTION: E.ON-US is proposing to expand their landfill operations for the purpose of  
Describe the type and purpose of construction and describe stream impact  
storing coal combustion by-products (CCB) produced at the Cane Run Power Station. The proposed landfill design is approximately 61.2 acres in size, with an estimated 5.7 million cubic yards of storage capacity. The landfill will include an FML liner overlain by a drainage layer of graded bottom ash (CCB material produced at the site and beneficially reused for this construction). Clay fill materials will be borrowed to construct 24-inch thick cover on all exposed sides. Once operational storage capacity is met, the landfill will be capped with at least 24 inches of vegetated soil cover.
5. COUNTY: Jefferson NEAREST COMMUNITY: Louisville
6. USGS QUAD NAME: Lanesville LATITUDE/LONGITUDE: 38.181° N, 85.883° W
7. STREAM NAME: UT's to Mill Creek WATERSHED SIZE (in acres): 1925 acres
8. LINEAR FEET OF STREAM IMPACTED: 3,462 Linear Feet of Ephemeral and Intermittent Stream Impact
9. DIRECTIONS TO SITE: From Louisville, take I-264/Watterson Expressway to Exit 5 B to Cane Run Road/ KY-1934. Head southwest on Cane Run Road for approximately 3.3 miles. Turn right from Greenbelt Highway onto Dover Road/KY-1934 and follow KY-1934 to the left less than 1 mile to the E.ON-US/LG&E Cane Run Facility on the right.

10. IS ANY PORTION OF THE REQUESTED PROJECT NOW COMPLETE?  Yes  No If yes, identify the completed portion on the drawings you submit and indicate the date activity was completed.
11. ESTIMATED BEGIN CONSTRUCTION DATE: May 2012
12. ESTIMATED END CONSTRUCTION DATE: December 2013
13. HAS A PERMIT BEEN RECEIVED FROM THE US ARMY, CORPS of ENGINEERS?  Yes  No If yes, attach a copy of that permit.
14. THE APPLICANT *MUST* ADDRESS PUBLIC NOTICE:

(a) PUBLIC NOTICE HAS BEEN GIVEN FOR THIS PROPOSAL BY THE FOLLOWING MEANS:

- Public notice in newspaper having greatest circulation in area (provide newspaper clipping or affidavit)  
 Adjacent property owner(s) affidavits (Contact Division of Water for requirements.)

(b)  I REQUEST WAIVER OF PUBLIC NOTICE BECAUSE:

Stantec and E.ON-US will publish public notices and/or hold public meetings during waste permitting process and 404 permitting process.  
 Contact Division of Water for requirements.

15. I HAVE CONTACTED THE FOLLOWING CITY OR COUNTY OFFICIALS CONCERNING THIS PROJECT:

MSD has been contacted on several occasions regarding the proposed activities. MSD personnel have participated in preliminary planning associated with the proposed construction and their input was sought regarding potential flooding impacts presented by the proposed locations. Stantec and E.ON-US will continue to involve appropriate members of City and County government to ensure the proposed project meets City and County Regulations.


Give name and title of person(s) contacted and provide copy of any approval city or county may have issued.

16. LIST OF ATTACHMENTS: \*\*See Attached 'Permit Application Outline'\*\*  
 List plans, profiles, or other drawings and data submitted. Attach a copy of a 7.5 minute USGS topographic map clearly showing the project location.

17. I, Paul Puckett (owner) CERTIFY THAT THE OWNER OWNS OR HAS EASEMENT RIGHTS ON ALL PROPERTY ON WHICH THIS PROJECT WILL BE LOCATED OR ON WHICH RELATED CONSTRUCTION WILL OCCUR (for dams, this includes the area that would be impounded during the design flood).

18. REMARKS: Floodplain Permit Application submission is awaiting Louisville Metro Sewer District Approval.

I hereby request approval for construction across or along a stream as described in this application and any accompanying documents. To the best of my knowledge, all the information provided is true and correct.

SIGNATURE:   
 Owner or Agent sign here. (If signed by Agent, a Power of Attorney should be attached.)

DATE: 9/6/09

SIGNATURE OF LOCAL FLOODPLAIN COORDINATOR:

Permit application will be returned to applicant if not properly endorsed by the local floodplain coordinator.

DATE: \_\_\_\_\_

SUBMIT APPLICATION AND ATTACHMENTS TO:

Floodplain Management Section  
 Kentucky Division of Water  
 Water Quality Certification Section  
 200 Fair Oaks Lane  
 Frankfort, KY 40601

**COMMONWEALTH OF KENTUCKY  
ENERGY AND ENVIRONMENT CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WATER**

**INDIVIDUAL KENTUCKY WATER QUALITY CERTIFICATION  
FEE PAYMENT**

401 KAR 9:020 Section 401 Water Quality Certification Fees and Certification Timetable

KRS 224.16-050 authorizes the cabinet to certify pursuant to 33 U.S.C. 1341 that applicants for a federal permit regarding the construction or operation of facilities, which may result in a discharge of dredged or fill material into the waters of the Commonwealth, as defined in KRS 224.01-010(33), shall comply with the applicable provisions of the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq. KRS 224.10-100 authorizes the cabinet to establish a fee for the cost of processing applications for permits authorized under KRS Chapter 224. The project may not start until all necessary fees are paid and approvals are received from KDOW. For questions concerning the WQC process, contact the WQC Section at 502-564-3410. For more information: <http://www.water.ky.gov/permitting/wqc-cert/>

1. **OWNER:** E.ON-US  
Provide name of person(s), company, governmental unit or other owner of proposed project.  
**MAILING ADDRESS:** Attn: W. Paul Puckett, 220 West Main Street, Louisville, KY 40232  
**TELEPHONE #:** (502) 627-4659 **E-MAIL:** Paul.Puckett@eon-us.com  
**AGENCY INTEREST (AI) # OF PROJECT:** \_\_\_\_\_ (assigned by KDOW)

2. **AGENT:** Stephen Hall  
Provide name of person(s) submitting application, if other than owner.  
**ADDRESS:** Stantec Consulting Services Inc., 350 Missouri Ave., Suite 100, Jeffersonville, IN 47130  
**TELEPHONE #:** (812) 285-4060 **E-MAIL:** Stephen.Hall@stantec.com

3. **BRIEF DESCRIPTION OF CONSTRUCTION:** E.ON-US is proposing to expand their landfill facilities for the purpose of storing coal combustion by-products (CCB) produced at the Cane Run Power Station. The proposed landfill design is approximately 61.2 acres in size, with an estimated 5.7 million cubic yards of storage capacity. The landfill will include an FML liner overlain by a drainage layer of graded bottom ash (CCB material produced at the site and beneficially reused for this construction). Clay fill materials will be borrowed to construct 24-inch thick cover on all exposed sides. Once operational storage capacity is met, the landfill will be capped with 24 inches of vegetative soil cover.

4. **COUNTY:** Jefferson **NEAREST COMMUNITY:** Louisville, KY

5. **STREAM NAME(S):** UT's to Mill Creek **LATITUDE/LONGITUDE:** 38.181° N, 85.883° W  
(Start and end points of each individual impact; add more sheets if necessary.)

7. **TOTAL LINEAR FEET OF STREAM IMPACTED:** 3,462 **WETLAND ACRES IMPACTED:** 1.597

8. **EXEMPTED FROM FEE BECAUSE:**

(A) {Personal Residence: \_\_\_\_\_} (B) Agricultural Operation: \_\_\_\_\_

9. **FEES:**

Stream impact greater than 500 linear feet and less than 1,000 linear feet:	Fee - \$1,000.00	_____
Stream impact 1,000 linear feet to 5,000 linear feet:	Fee - \$2,500.00	<u>\$2,500</u>
Stream impact greater than 5,000 linear feet:	Fee - \$,5000.00	_____
Wetland impacts	Fee \$500.00 per acre not to exceed \$5,000.00	<u>\$798.50</u>
	<b>Total Fee Paid:</b>	<u>\$3,298.50</u>

To the best of my knowledge, all the information provided is true and correct.

**SIGNATURE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_  
Owner or Agent sign here. (If signed by Agent, attach Power of Attorney.)

**Make check to: KY STATE TREASURER**

**MAIL TO:**

Kentucky Division of Water  
Water Quality Certification Section  
200 Fair Oaks Lane  
Frankfort, KY 40601

**Section 404 CWA  
Department of the Army  
Permit Application**

## APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

OMB APPROVAL NO.

Public reporting burden for this collection of information is estimated to average 5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0-0003), Washington, DC 20503. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

## PRIVACY ACT STATEMENT

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require authorizing activities in, or affecting, navigable waters of the United States, the discharge or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Routine Uses: Information provided on this form will be used in evaluating the application for a permit. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

## (ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED
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## (ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME E.ON-US (LG&E)	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required) Stantec Consulting Services Inc.
6. APPLICANT'S ADDRESS E.ON-US Attn: W. Paul Puckett 220 West Main Street Louisville, KY 40232	9. AGENT'S ADDRESS Stantec Consulting Services Inc. Attn: Stephen Hall 350 Missouri Ave., Suite 100 Jeffersonville, IN 47130
7. APPLICANT'S PHONE NOS. W/AREA CODE a. Residence b. Business 502-627-4659	10. AGENT'S PHONE NOS. W/AREA CODE a. Residence b. Business 812-786-3154

## STATEMENT OF AUTHORIZATION

I hereby authorize, Stephen Hall, Stantec Consulting Services, Inc. to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

W. Paul Puckett  
APPLICANT'S SIGNATURE

11/6/99  
DATE

## NAME, LOCATION, AND DESCRIPTION OR PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)  
Cane Run Generating Station Landfill Expansion

13. NAME OF WATERBODY, IF KNOWN (if applicable)  
Un-named Tributaries to Mill Creek

14. PROJECT STREET ADDRESS (if applicable)  
5252 Cane Run Road  
Louisville, KY 40216

15. LOCATION OF PROJECT  
Jefferson COUNTY Kentucky STATE

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) Section, Township, Range, Lat/Lon, and/or Accessors's Parcel Number, for example.

The proposed E.ON-US Cane Run Landfill Expansion project encompasses approximately 60 acres within the Cane Run facility property, near Mill Creek in Louisville, Jefferson County, Kentucky. The project site is located off Cane Run Road within the USGS Lanesville Quad, at latitude / longitude coordinates 38.181° N, 85.883° W.

17. DIRECTIONS TO THE SITE

From Louisville, take I-264/Watterson Expressway to Exit 5B to Cane Run Road/KY-1934. Head southwest on Cane Run Road for approximately 3.3 miles. Turn right onto Dover Rd/KY-1934 and then left onto KY-1934. The E.ON-US/LG&E Cane Run Facility will be on the right.

18. Nature of Activity (Description of project, include all features)

E ON-US is proposing to expand their landfill operations for the purpose of storing coal combustion by-products (CCB) produced at the Cane Run Power Station. The proposed landfill design is approximately 61.2 acres in size, with an estimated 5.7 million cubic yards of storage capacity. Clay fill materials will be borrowed to create a liner system before dry CCB materials would be compacted in the landfill. Once operational storage capacity is met, the landfill will be capped with 24 inches of vegetated soil cover.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the project is to provide storage capacity for CCB generated from the Cane Run Station.

**USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED**

20. Reason(s) for Discharge

In order to provide adequate, safe and cost-effective storage for the CCB generated by this facility, it is necessary to construct an on-site landfill

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards

Soil and rock will be borrowed and used to fill waters; approximately 1,578 cubic yards.

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Proposed activities involve impacts to 8 ephemeral streams (1,845 feet, 0.403 acres), and 2 intermittent streams (1,617 feet, 0.137 acres).  
SEE ATTACHMENTS FOR MORE DETAIL

23. Is Any Portion of the Work Already Complete? Yes \_\_\_ No X IF YES, DESCRIBE THE COMPLETED WORK

24. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list)

All property directly adjoining the project area is owned by the permittee.


25. List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

\_\_\_\_\_  
SIGNATURE OF APPLICANT

\_\_\_\_\_  
DATE

  
\_\_\_\_\_  
SIGNATURE OF AGENT

11/9/09  
\_\_\_\_\_  
DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.