COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

INVESTIGATION OF KENTUCKY UTILITIES)	
COMPANY'S AND LOUISVILLE GAS &)	
ELECTRIC COMPANY'S RESPECTIVE NEED)	CASE NO.
FOR AND COST OF MULTIPHASE LANDFILLS)	2015-00194
AT THE TRIMBLE COUNTY AND GHENT)	
GENERATING STATIONS)	

ORDER

On July 16, 2015, Louisville Gas & Electric Company and Kentucky Utilities Company (collectively the "Companies"), pursuant to 807 KAR 5:001, Section 22, tendered a joint petition to deviate from the Commission's electronic filing requirements set forth in 807 KAR 5:001, Section 8. The Companies request approval to file their response to Commission Staff's Initial Request for Information, Item 6.a. ("Staff 1-6(a)"), and their responses to Sterling Ventures, LLC's First Request for Information, Item 2.e. ("SV 1-2(e)") and Item 14 ("SV 1-14"), on digital media. The Companies filed with the Commission only one copy on digital media of the responses to Staff 1-6(a) and SV 1-2(e).

In support of their motion, the Companies state that it would be costly to file an original in paper format, noting that the response to Staff 1-6(a) contains approximately 8 gigabytes of information and the responses to SV 1-2(e) and SV 1-14 contain approximately 270 megabytes and 56 gigabytes of information, respectively. Additionally, due to the voluminous electronic size of the documents, the Companies contend that it would be impracticable and/or impossible to electronically upload the

files via the Commission's electronic filing system. The Companies proposed to submit the responses to Staff 1-6(a) on a compact disc and the responses to SV 1-2(e) and SV 1-14 on a thumb drive. The Companies indicate that these responses will be provided to the Intervenors in this case on duplicate digital media.

The Commission finds that, due to the voluminous nature of the filings, the Companies have demonstrated good cause to deviate from the electronic filing requirements set forth in 807 KAR 5:001, Section 8, as well as the requirement to file a paper original of each document in regard to the Companies' responses to Staff 1-6(a) and SV 1-2(e). However, the Companies' response to Staff 1-6(a) contains numerous discrete files that lack individual identifiers describing the contents of each document. Attached, as an appendix to this Order, is an index generated by the Commission listing the individual documents contained on the compact disc that is responsive to Staff 1-6(a) and, for some of the documents, a description of that document by displaying the first 500 characters of the file. We note that some of the documents were unreadable and, thus, no description of the document could be generated. The Commission finds that for those documents that were either unreadable or lacking a description, the Companies should provide a brief description, beyond the file name, identifying the contents of each document. The Companies should file on compact discs an original plus ten copies of their response to Staff 1-6(a) with the addition of the description of each document included therein. Given that the response to SV 1-2(e) will only be submitted in the form of a thumb drive and not via the Commission's electronic filing system, the Commission will direct the Companies to file ten additional thumb drives containing the response to SV 1-2(e).

Finally, the Companies requested a similar deviation regarding SV 1-14, noting the response's file size. Upon review of the record, the Commission was unable to find the thumb drive containing the Companies response to SV 1-14. As no digital media containing the response to SV 1-14 has been filed with the Commission, the Commission cannot yet rule on the Companies' motion to deviate. Accordingly, the Companies should file an original and ten copies of the response to SV 1-14 on either a compact disc or thumb drive. Once the response is filed, the Commission will then adjudicate the request to deviate with respect to that response.

IT IS THEREFORE ORDERED that:

- 1. The Companies' motion to deviate from 807 KAR 5:001, Section 8, and file their responses on digital media is granted for Staff 1-6(a) and SV 1-2(e), and is deferred for future consideration for SV 1-14.
- 2. Within seven days of the date of this Order, the Companies shall file on compact discs an original and ten copies of their original response to Staff 1-6(a), updated to include the description of each document.
- 3. Within two days of the date of this Order, the Companies shall file on thumb drives an original and ten copies of their response to SV 1-14 and 10 copies of their response to SV 1-2(e).

By the Commission

ENTERED

AUG 03 2015

KENTUCKY PUBLIC SERVICE COMMISSION

ATTEST:

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2015-00194 DATED AUG Q 3 2015

Document

\#1 -- KY Division of Waste Management 03Jan14\DWM NOD No 1\DWM Issued NOD #1

NOD #1 4-8-2014.pdf

KentuckyUnbridledSpirit.com

M/F/D

April 8, 2014 Mr. W. Paul Puckett, Engineer Louisville Printed on recycled paper Gas & Electric Company P.O. Box 32010 Louisville, KY 40232 Certified Mail No. 7013 1090

An Equal Opportunity Employer

0000 6758 1

\#1 -- KY Division of Waste Management 03Jan14\DWM NOD No 1\LG&E Response NOD #1

2014 07 18 - Replacement Instructions - Trimble.pdf 7/25/2014 C100784.07 Page 1 of 4 Trimble County Generating Station Landfill Project Response to Comments, Notice of Deficiency (NOD) #1 Directions to inserting repla cement pages into existing KY - DWM Sp ecial Waste Permit Application •• Table of Contents (in al Volumes 1 through 5): o Replace all pages with the provided "Table of Contents", pages 1 - 6. • Binder Cover Pages/Spines (in all Volumes 1 through 5): o Replace each volume's binder cover page and

Cover Pages.pdf

Special Waste Permit Modification Application Louisville Gas & Electric Company Trimble County Generating Station Landfill Trimble County, Kentucky Volume 1 of 5 **GAI Project** Number C100784.07, Task 003 December 2013 Revised June 2014 Prepared for: Louisville Gas & Electric Company 820 West Broadway Louisville, Kentucky 40202 - 2218 Prepared by: GAI Consultants, Inc. Pittsburgh Office 385 East Waterfront Drive Homestead, Pennsylvania 15120 - 50

Spines.pdf

Special Waste Permit Modification Application Louisville Gas & Electric Company Trimble County Generating Station Landfill Trimble County, Kentucky Volume 1 of 5 Project C1 00784.07, Task 0 03 December 2013 Revised June 2014 Special Waste Permit Modification Application Louisville Gas & Electric Company Trimble County Generating Station Landfill Trimble County, Kentucky Volume 2 of 5 Project C100784.07 . Task 003 December 2013 Rev

Table of Contents (replace in all Volumes).pdf

Revised June 2014 i Special Waste Permit Modification Application Table of Contents Trimble County Generating Station Landfill VOLUME 1 Application for a Special Waste Landfill Permit Form DEP 7094A (5/92) Attachment 1: Information Concerning Additional Property Owners Drawing TC0-C-02927 - Property Map Attachment 2: Owners of Mineral Rights Attachment 3: Information Concerning Adjacent Property Owners Attachment 4: Deeds or Option Information Appendix 4.1: Deed Informat

TC - Response to Comments - NOD1 - Attachments.pdfuly 25, 2014 Project C100784.07, Task 003.008 ATTACHMENT 1 EXISTING KPDES PERMIT DEPARTMENT FOR ENVIRONMENTAL PROTECTION Division of Water, 200 Fair

TC - Response to Comments - NOD1.pdf

\#1 -- KY Division of Waste Management 03Jan14\DWM NOD No 1\LG&E Response NOD #1\VOLUME 1

10078400T003-FORM DEP 7094A-AJB.pdf

DEP 7094A (5/92) 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 existin g special waste landfill permi

Attachment 20.pdf

Revised June 2014 20-1 ATTACHMENT 20

Design Plans

Trimble County Generating Station Landfill

The design plans, Drawings TC0-C-02931 through TC0-C-02973 and Drawing TC0-C-02981, are included under Volume 5 of this Application.

Attachment 21.pdf

Revised June 2014 21-1 ATTACHMENT 21 401 Water Quality Certification Trimble County Generating Station CCR Landfill The Section 404 Application, the Application for Permit to Construct Across or Along a Stream, and Section 401 Water Quality Certification for the Project will be submitted to the KY DEP (Division of Water) and the USACE in early 2014. A copy of the

Attachment 5.pdf

Revised June 2014 5-1 ATTACHMENT 5 Facilities Impact on Transportation Routes, Prime A gricultural Lands, Water Resources, Historic Properties, and Endangere d or Threatened Species Trimble County Generating Station Landfill Transportation Routes The proposed coal combustion residuals (CCR) landfill site is currently accessed via KY State Route 625 (identified as Mt. Pleasant Road or Peck Pike Road) located approximately 0.5-mile northeast of the proposed CCR landfill. Wentwo

Attachment 6.pdf

Revised June 2014 6-1 ATTACHMENT 6 Variances Trimble County Generating Station Landfill LG&E and GAI request the following variances: Attachment 15 - Local Features • Drawing depicted at a scale of one-inch equals 600 feet to show all features on one drawing. Attachment 20 - Design Plans • Development Plans depicted at a scale of one-inch equals 200 feet so that the overall landfill and phasing can be shown on individual sheets in lieu of multiple sheets with match lines

Attachment 6-1 - (TC0-C-02984 REV 0).pdf

a PPL company

? 2013 GAI Consultants, Inc.

\#1 -- KY Division of Waste Management 03Jan14\DWM NOD No 1\LG&E Response NOD #1\VOLUME 2

Attachment 23.pdf

Revised June 2014 23-1 ATTACHMENT 23 Surface Water Controls and Sediment Basin Design Trimble County Generating Station Landfill Surface water at the Trimble County Generating Stat ion Landfill will be controlled using a series of collection channels, diversion channels, waterba rs, slope drains, culverts and a Sediment Basin. Where possible, water contacting undisturbed areas will be conveyed to diversion channels and diverted around the facility. Water co ntacting the distur

\#1 -- KY Division of Waste Management 03Jan14\DWM NOD No 1\LG&E Response NOD #1\VOLUME 3

Attachment 26.pdf

Revised June 2014 26-1 ATTACHMENT 26 Working Face Requirements Trimble County Generating Station Landfill LG&E proposes the following working face requirements: Lift Heights: All Special Waste will be loosely placed in maxim um 24-inch lifts then compacted by the equipment identified in Attachment 13 to obtain a minimum 92 percent Standard Proctor. Access: Access to the landfill will be limited to persons operating the landfill and others

Attachment 27.pdf

27-1 ATTACHMENT 27 Bottom Liner Specifications Trimble County Generating Station Landfill The specifications for the bottom liner are provide d on the following pages. Trimble County Generating Station Landfill Technical Specifications i BOTTOM LINER SPECIFICATIONS TABLE OF CONTENTS 1.0 STRUCTURAL FILL, PREPARED SUBGRADE, AND COMPACT ED SOIL LINER 2.0 LINEAR LOW DENSITY POLYETHYLENE GEOMEMBRANE 3.0 CUSHION GEOTEXTILE 4.0 GEOCOMPOSITE DRAINAGE NET 5.0

Attachment 28 - Appendix 28.1 - Settlement Analysis.pa8 - 4 Appendix 28.1 Settlement Analysis Settlement Analysis Trimble County Generating Station Landfill 1.0 Introduction Development of the landfill will consist of constructing a composite liner system that is comprised of a prepared subgrade, compacted soil liner, geome mbrane, cushion geotextile or a geocomposite drainage net, leachate collection system, and protective cover. Coal Combustion Residuals (CCRs) will be placed directly over the protective cover of the liner sy

Attachment 28 - Appendix 28.13 - Groundwater Pipe Design.pdf 28-16 Appendix 28.13

Groundwater Underdrain Pipe Design

Attachment 28 - Appendix 28.14 - Chimney Drain Design.pdf 28-17 Appendix 28.14

Chimney Drain Design

Attachment 28 - Appendix 28.15 - Leachate Pond Design.pdf 28-18 Appendix 28.15

Leachate Pond Design

Attachment 28 - Appendix 28.2 - Stability Analysis.pdf Unreadable PDF by both ceTe and AF

Attachment 28 - Appendix 28.5 - Veneer Stability Analysis.pdf 28 - 8 Appendix 28.5

Veneer Stability Analyses

Attachment 28 - Appendix 28.6 - Leachate Collect Pipe Des.pdf 28-9 Appendix 28.6

Leachate Collection System Pipe Design

Attachment 28.pdf

Revised June 2014 28-1 ATTACHMENT 28 Bottom Liner Risk Analysis Trimble County
Generating Station Landfill Bottom Liner System The Bottom Liner System will consist of the
following (bottom to top):
• Six inches of prepared subgrade;
• 24 inches of compact soil liner;
• A 60-mil linear low density polyethylene (LLDPE) geomembrane;
• 12 ounce per square yard
cushion geotextile or 300-mil Geocomposite Drainage Net;
• 12-inch leachate collection system
containing perforated

Attachment 29.pdf

Revised June 2014 29-1 ATTACHMENT 29 Description of Unconsolidated Materials within the Disposal Area Trimble County Generating Station Landfill Based on the test pit and boring information provided in Attachment 38, the site has two types of unconsolidated materials on the site before encountering rock: Topsoil: Approximately one-foot thick. Clays: The clays are abundant over the entire site and can vary from zero-foot in valley floors to over 20 feet on the top of adjacen

Attachment 30.pdf

Revised June 2014 30-1 ATTACHMENT 30 Influence of Fracture Zones on Infiltration and Movement of Water and Groundwater Trimble County Generating Station Landfill The geologic structure, as depicted by the structural contours on Drawing TC0-C-02974 (Attachment 31-1), appears to have played a role in the formation of the drainage pattern at the proposed landfill location. The orientation of the valley generally coincides with the structural dip locally (i.e., from east to west). Als

Attachment 31-1 - (TC0-C-02974 REV A).pdf

a PPL company ? 2013 GAI Consultants, Inc.

Attachment 31-2 - (TC0-C-02975 REV A).pdf

a PPL company

Attachment 34.pdf

Revised June 2014 34-1 ATTACHMENT 34 Rock Boring Logs Trimble County Generating Station Landfill The following rock boring logs are included as Appendices in this Attachment: Appendix 34.1: Rock Borings completed by GAI between 2010 and 2013; Appendix 34.2: Soil and Rock Borings completed by MACTEC during 2006; and Appendix 34.3: Exploratory Borings completed by Louisville Gas and Electric Company as part of 1983 submission of Application for Solid Waste Disposal Site

Attachment 34-1 - (TC0-C-02977 REV A).pdf

a PPL company ? 2013 GAI Consultants, Inc.

Attachment 35.pdf

Revised June 2014 35-1 ATTACHMENT 35

Geologic Features Map Trimble County Generating Station Landfill

Drawing TC0-C-02978, designated as Attachment 35-1, has been provided for this Attachment and follows this page.

DRAFT FOR CLIENT REVIEW 6/6/2014

Attachment 35-1 - (TC0-C-02978 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc.

Attachment 36-1 - (TC0-C-02985 REV 0).pdf

a PPL company

? 2013 GAI Consultants, Inc.

Attachment 37.pdf

Revised June 2014 37-1 ATTACHMENT 37 Springs and Upgradient Wells Trimble County Generating Station Landfill A spring survey was completed by MACTEC in 2009 for the entire Ravine B where the landfill was proposed. GAI on January 6 and 7, 2011 and May 22, 2013 performed follow up spring surveys within the proposed waste boundary to confirm spring locations identified by MACTEC. Table 37-1 provides springs inside the proposed waste boundary identified and confirmed by GAI. Table 37-2

Attachment 38.pdf

Revised June 2014 38-1 ATTACHMENT 38 List of Unconsolidated Materials within the Disposal Area Trimble County Generating Station Landfill The site has two types of unconsolidated materials on the site before encountering rock: Topsoil: Approximately one-foot thick. Clays: The clays are abundant over the entire site and can vary from zero-foot in valley floors to over 20 feet on the top of adjacent ridges. Some clay samples contained chert fragments. The hydrogeologic charac

\#1 -- KY Division of Waste Management 03Jan14\DWM NOD No 1\LG&E Response NOD #1\VOLUME 4

Attachment 39-1 - (TC0-C-02979 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc.

Attachment 40.pdf

Revised June 2014 40-1 ATTACHMENT 40 Soils Survey Trimble County Generating Station Landfill The soil survey map for the LG&E property is included as Drawings TC0-C-02980, TC0-C-02982, and TC0-C-02983 in this Attachment. Drawing TC0-C-02979 included under Attachment 39-1 identifies the location of all boring and test pit locations within the Project area. Figure 40-1 has been included to illustrate the various soil horizons discussed throughout this

Attachment 40-1 - (TC0-C-02980 REV A).pdf

a PPL company? 2013 GAI Consultants, Inc. Soil Classification Soil Name Depth to Bedrock Soil Volume per Acre Area within Waste Boundary (acres) Anticipated Average Volume of Soil within Waste Boundary (CY) Minimum (CY/Acre) Maximum (CY/Acre) BeC2 Beasley silty clay loam 40 to 60 inches 5,378 8,067 0.00 0 BeD2 Beasley silty clay loam 40 to 60 inches 5,378 8,067 0.00 0 Bo Boonesboro silt loam 20 to 40 inches 2,689 5,378 0.97 3,912 BsE2 Brassfield-Beasl ey complex 20 to 40 inches 2,689 5,378 44.

Attachment 41.pdf

Unreadable PDF by both ceTe and AF

Attachment 43.pdf

43-1 ATTACHMENT 43 Surface Water Monitoring Plan Trimble County Generating Station Landfill The Surface Water Monitoring Plan is provided on the following pages. DRAFT FOR CLIENT REVIEW 6/6/2014 Revised June 2014 ATTACHMENT 43 Surface Water Monitoring Plan Special Waste Permit Modification Application Trimble County Generating Station Landfill Trimble County, Kentucky December 2013 Revised June 2014 Prepared for Louisville Gas & Electric Company

Attachment 43A.pdf

Revised June 2014 43A-1 ATTACHMENT 43A

Surface Water Monitoring Points
Trimble County Generating Station Landfill

The locations for the following monitoring points are at the following coordinates:

Sampling
Point Number Location Description Latitude Longitude
SWMP-01 Background Point 38° 36' 19.940" -85° 24' 56.048"
SWMP-02 Downstream Point 38° 36' 2.909" -85° 24' 39.636"

DRAFT FOR CLIENT REVIEW 6/6/2014

Attachment 46.pdf

Maria a

\#1 -- KY Division of Waste Management 03Jan14\DWM NOD No 1\LG&E Response NOD #1\VOLUME 5

Attachment 20-1 - (TC0-C-02931 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc.

C/D

NOT FOR CONSTRUCTION

Attachment 20-10 - (TC0-C-02940 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

Attachment 20-11 - (TC0-C-02941 REV A).pdf

a PPL company

Attachment 20-12 - (TC0-C-02942 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

Attachment 20-13 - (TC0-C-02943 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

Attachment 20-14 - (TC0-C-02944 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

Attachment 20-15 - (TC0-C-02945 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

Attachment 20-17A - (TC0-C-02981 REV 0).pdf

a PPL company

? 2013 GAI Consultants, Inc.

Attachment 20-2 - (TC0-C-02932 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

Attachment 20-3 - (TC0-C-02933 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

Attachment 20-4 - (TC0-C-02934 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

Attachment 20-6 - (TC0-C-02936 REV A).pdf

? 2013 GAI Consultants, Inc.

a PPL company

NOT FOR CONSTRUCTION

Attachment 20-7 - (TC0-C-02937 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

Attachment 20-8 - (TC0-C-02938 REV A).pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

Attachment 20-9 - (TC0-C-02939 REV A).pdf

Unreadable PDF by both ceTe and AF

\#1 -- KY Division of Waste Management 03Jan14\DWM NOD No 2\DWM Issued NOD #2

Tech NOD #2 01-16-20151.pdf

KentuckyUnbridledSpirit.com

An Equal Opportunity Employer

M/F/D

Printed on recycled paper January 16, 2015 Mr. W. Paul Puckett, Engineer Louisville Gas & Electric Company P.O. Box 32010 Louisville, KY 40232 Certified Mail No.

7012 2920 0001 0743 0

\#1 -- KY Division of Waste Management 03Jan14\DWM NOD No 2\LG&E Response NOD #2

001 - Response to Comments - NOD2.pdf

Pittsburgh Office 385 East Waterfront Drive H omestead, PA 15120-5005 T 412.476.2000 F 412.476.2020 www.gaiconsultants.com June 15, 2015 Project C100784.07 Mr. Danny Anderson, P.E. Manager Division of Waste Management Solid Waste Branch 200 Fair Oaks Lane, Second Floor Frankfort, Kentucky 40601 Response to Comments Notice of Deficiency Letter #2 Louisville Gas & Electric Company Trimble County Generating Station Landfill Agency Interest #4054 Application

002 - TC NOD #2 Replacement Instructions.pdf

June 2015 1 Trimble County Generating Station Landfill Project Response to Comments, Notice of Deficiency (NOD) #2 Directions to inserting replacement pages into June 2014 DWM Special Waste Permit Application Please contact Kevin Resnik or Amy Bartkus at 412-4 76-2000, extension 1543 or 1566, if there are any questions or concerns regarding these replacement i nstructions. • Binder Cover Pages and Spines (in ALL Volumes 1 thr ough 5): o Replace each volume's binder cover page and s

003 - Cover Pages and Spines.pdf

Special Waste Permit Modification Application Louisville Gas & Electric Company Trimble County Generating Station Landfill Trimble County, Kentucky Volume 1 of 5 GAI Project Number: C100784.07, Task 003 December 2013 Revised June 2014 Revised June 2015 Prepared for: Louisville Gas & Electric Company 820 West Broadway Louisville, Kentucky 40202-2218 Prepared by: GAI Consultants, Inc. Pittsburgh Office 385 East Waterfront Drive Homestead, Pennsylvania 15120-5005

\#1 -- KY Division of Waste Management 03Jan14\DWM NOD No 2\LG&E Response NOD #2\Volume 1

10078400T003-FORM DEP 7094A-AJB.pdf

DEP 7094A (5/92) 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 existin g special waste landfill permit

1-1 ATTACHMENT 1 Information Concerning Additional Property Owners Trimble County

Attachment 1.pdf

Attachment 10.pdf

Attachment 11.pdf

Attachment 12.pdf

Attachment 13.pdf

Attachment 14.pdf

- 10-1 ATTACHMENT 10 Waste Information Trimble County Generating Station Landfill The following waste information is provided on the following page of this Attachment: Estimated Yearly Disposal Rate; Estimated Average Daily Fill Rate; Estimated Maximum Daily Fill Rate; Total Site Volume; Site Life; Project Area Breakdown (including number of acres to be filled and permitted); and Buffer Information. Attachment 10 Waste Information Table Estimated Annua
- 11 1 ATTACHMENT 11 Raw Materials and Waste Generation Process Trimble County Generating Station Landfi II The Trimble County Generating Station has two coal fired generation units . Unit 1 is rated at 514 megawatts (net) and Unit 2 is rated at 760 megawatts (net) . Each unit has a Flue Gas Desulphurization (FGD) system to reduce emissions of sulfur dioxide (SO2) . The FGD system introduces a slurried alkaline sorbent (crushed limestone) to capture SO2 . Each unit
- 12 1 ATTACHMENT 12 Physical and Chemical Characteristics of Waste Trimble County Generating Station Land fill Physical Characteristics B ucket samples of the following CCRs were obtained between December 2010 and September 2013 from Unit s 1 and 2 of the Trimble County Generating Station for physical testing: Bottom Ash Unit 1 an Unit 2; Fly Ash Unit 1 and Unit 2; Gypsum Unit 1 and Unit 2; and Pyr
- 13 1 ATTACHMENT 13 Equipment to Construct, Operate, and Maintain Special Waste Landfill Trimble County Generating Station Landfill The following equipment is expected to be used to construct, operate, and maintain the Special Waste Landfill Facility. Backhoes; Dozers; Scrapers; Excavators; Off Road Haul Trucks; Fixed Body and Articul Dump Trucks; Dump Trucks; Passenger Vehicles (Such As Pickup Trucks)

Revised June 2015 14-1 ATTACHMENT 14 USGS Topographic Map Trimble County Generating Station Landfill Drawing TC0-C-02928 following this write-up includes the features requested within a one-mile radius of the waste boundary. The base mapping for Drawing TC0-C-02928 is the United States Geological Survey (USGS) 7.5-minute topographic Quadrangles of KY for Bedford (1984), Bethlehem (1987), Madison East (1994), and Madison West (1980).

Attachment 15.pdf

Revised June 2015 15-1 ATTACHMENT 15 Local Features Trimble County Generating Station Landfill Drawing TC0-C-02929 following this page includes the features requested as follows: Feature Source Date Published Property Lines MACTEC survey and Public Valuation Assessment 2006 through 2010 Adjacent Property Owners MACTEC survey and Public Valuation Assessment 2013 Permit Area (Impact Boundary) Design drawings as shown in Attachment 20 2013 Fill Area (Waste Boundary)

Attachment 16.pdf

Revised June 2015 16-1 ATTACHMENT 16 Published Information on Archaeological Sites Trimble County Generating Station Landfill LG&E requests that a permit condition be added to the permit such that landfill construction activities shall not commence in the area designated in application APE20140001 until 1) concurrence of the project by KHC regarding the cultural resources studies described below is received, and 2) concurrence is submitted to, and accepted by KY-DWM. LG&E reque

Attachment 17.pdf

Revised June 2015 17-1 ATTACHMENT 17 Published Information on Critical Habitats Trimble County Generating Station Landfill LG&E requests that a permit condition be added to the permit such that landfill construction activities shall not commence in the area designated in application APE20140001 until 1) concurrence of the project by USFWS regarding the critical habitat for the Indiana bat, or lack thereof, in the Project area described below is received, and 2) concurrence is su

Attachment 18.pdf

Revised June 2015 18-1 ATTACHMENT 18 Published Information on Wetlands Trimble County Generating Station CCR Landfill LG&E requests that a permit condition be added to the permit such that landfill construction activities shall not commence in the area designated in application APE20140001 until 1) receipt of a USACE permit and concurrence of the project by KDFWR regarding the mitigation of impacts to stream s and wetlands described below is received, and 2) concurrence is submi

Attachment 19.pdf

19-1 ATTACHMENT 19

General County Highway Map Trimble County Generating Station Landfill

Attachment 2.pdf

2 - 1

ATTACHMENT 2

Owners of Mineral Rights
Trimble County Generating Station Landfill

LG&E has determined that no mineral rights exceptions have been identified for the propert y owned and identified as LG&E in Attachment 1.

Attachment 20.pdf

Revised June 2014 20-1 ATTACHMENT 20

Design Plans Trimble County Generating Station Landfill

The design plans, Drawings TC0-C-02931 through TC0-C-02973 and Drawing TC0-C-02981, are included under Volume 5 of this Application.

Attachment 21.pdf

Revised June 2015 21-1 ATTACHMENT 21 401 Water Quality Certification Trimble County Generating Station CCR Landfill LG&E requests that a permit condition be added to the permit such that landfill construction activities shall not commence in the a rea designated in

Attachment 3.pdf

Attachment 4.pdf

Attachment 5.pdf

Attachment 6.pdf

Attachment 7.pdf

- 3 1 ATTACHMENT 3 Information Concerning Adjacent Property Owners Trimble County Generating Station Landfill The property owners identified on the following table of this Attachment are considered Adjacent Property Owners based on existing LG&E property . A property map, D rawing TC0 C 02 927, is provided under Attachment 1. 3 2 Adjacent Property Owners Parcel ID Property Owner Address City State Zip Code Telep hone Number DB 28 PG 58
- 4-1 ATTACHMENT 4 Deeds or Option Information Trimble County Generating Station Landfill Deeds to property owned by LG&E as of the Special Waste Permit Application submittal date are provided in Appendix 4.1 of this Attachment. At this time, LG&E has obtained sufficient property to construct the proposed Project, located in Trimble County, KY. If additional properties adjacent to the proposed landfill become available, LG&E may acquire those properties for borrow areas, buffers, or
- 5-1 ATTACHMENT 5 Facilities Impact on Transportation Routes, Prime A gricultural Lands, Water Resources, Historic Properties, and Endangere d or Threatened Species Trimble County Generating Station Landfill Transportation Routes The proposed coal combustion residuals (CCR) landfill site is currently accessed via KY State Route 625 (identified as Mt. Pleasant Road or Peck Pike Road) located approximately 0.5-mile northeast of the proposed CCR landfill. Wentworth R oad and Ogden

Revised June 2015 6-1 ATTACHMENT 6 Variances Trimble County Generating Station Landfill LG&E and GAI request the following variances: Attachment 15 - Local Features • Drawing depicted at a scale of one-inch equals 600 feet to show all features on one drawing. Attachment 20 - Design Plans • Development Plans depicted at a scale of one-inch equals 200 feet so that the overall landfill and phasing can be shown on individual sheets in lieu of multiple sheets with match lines

7-1 ATTACHMENT 7 Compliance with Local Planning and Zoning Trimble County Generating Station Landfill Public utilities, such as LG&E, are exempt from local planning and zoning ordinances based on the KY Revised Statutes, Chapter 100, Section 324. The statute is provided on the following page of this Attachment. 100.324 Public utility facilities excepted -- Review of proposed acquisition, disposition, or change by commission. (1) All other provisions of

Attachment 8.pdf

8-1

ATTACHMENT 8

Assistance from Local Fire District Trimble County Generating Station Landfill

The Bedford Fire Protection District Stations #1 and #2 will provide assistance at the Trimble County Generating Station Landfill as outlined on the following pages of this Attachment.

Attachment 9.pdf

9-1

ATTACHMENT 9

Past Performance Information Trimble County Generating Station Landfill

The Past Performance Information, including DEP Form 7094J for LG&E and all key personnel, is provided on the following pages.

Revised June 2014 23-1 ATTACHMENT 23 Surface Water Controls and Sediment Basin Design Trimble County Generating Station Landfill Surface water at the Trimble County Generating Station Landfill will be controlled using a series of collection channels, diversion channels, waterbars, slope drains, culverts and a Sediment Basin. Where possible, water

GEOMEMBRANE 3.0 CUSHION GEOTEXTILE 4.0 GEOCOMPOSITE DRAINAGE NET

	contacting undisturbed areas will be conveyed to diversion channels and diverted around the facility. Water contacting the disturbed sub
Attachment 24.pdf	24 - 1 ATTACHMENT 24 Potential for Gas Emissions and Odors Trimble County Generating Station Landfill The Special Waste Landfill Facility will receive C CRs (fly ash, FGD gypsum, bottom ash, and pyrites) produced by the Trimble County Generating Station . Additionally, bottom ash, a CCR produced by the Trimble County Generating Station, may be used as the drainage media for the landfill •'s leachate collection system . CCR materials are odorless and o not produce or ge
Attachment 25.pdf	25 - 1 ATTACHMENT 25 Public Access Controls Trimble County Generating Station Landfill The Trimble County Generating Station Landfill facility will be used for the storage and placement of CCR materials. The facility will not receive any materials from the general public; as a result, a landfill entrance sign is not required, per 401 KAR 45:110. Primary access to the Trimble County Generating Station Landfil I can be obtained through the Trimble County Generat
Attachment 26.pdf	Revised June 2014 26-1 ATTACHMENT 26 Working Face Requirements Trimble County Generating Station Landfill LG&E proposes the following working face requirements: Lift Heights: All Special Waste will be loosely placed in maxim um 24-inch lifts then compacted by the equipment identified in Attachment 13 to obtain a minimum 92 percent Standard Proctor. Access: Access to the landfill will be limited to persons operating the landfill and others authorized by LG&E. Access to t
Attachment 27.pdf	27-1 ATTACHMENT 27 Bottom Liner Specifications Trimble County Generating Station Landfill The specifications for the bottom liner are provide d on the following pages. Trimble County Generating Station Landfill Technical Specifications i BOTTOM LINER SPECIFICATIONS TABLE OF CONTENTS 1.0 STRUCTURAL FILL, PREPARED SUBGRADE, AND COMPACT ED SOIL LINER 2.0 LINEAR LOW DENSITY POLYETHYLENE

5.0

Attachment 23.pdf

Attachment 28.pdf

Attachment 29.pdf

Attachment 30.pdf

Attachment 31.pdf

Revised June 2014 28-1 ATTACHMENT 28 Bottom Liner Risk Analysis Trimble County Generating Station Landfill Bottom Liner System The Bottom Liner System will consist of the following (bottom to top): • Six inches of prepared subgrade; • 24 inches of compact soil liner; • A 60-mil linear low density polyethylene (LLDPE) geomembrane; • 12 ounce per square yard cushion geotextile or 300-mil Geocomposite Drainage Net; • 12-inch leachate collection system containing perforated

Revised June 2014 29-1 ATTACHMENT 29 Description of Unconsolidated Materials within the Disposal Area Trimble County Generating Station Landfill Based on the test pit and boring information provided in Attachment 38, the site has two types of unconsolidated materials on the site before encountering rock: Topsoil: Approximately one-foot thick. Clays: The clays are abundant over the entire site and can vary from zero-foot in valley floors to over 20 feet on the top of adjacen

Revised June 2015 30-1 ATTACHMENT 30 Influence of Fracture Zones on Infiltration and Movement of Water and Groundwater Trimble County Generating Station Landfill The geologic structure, as depicted by the structur al contours on Drawing TC0-C-02974 (Attachment 31-1), appears to have played a role in the formation of the drainage pattern at the proposed landfill location. The orientation of the valley generally coincides with the structural dip locally (i.e., from east to west).

31-1 ATTACHMENT 31

Geologic Cross-Sections
Trimble County Generating Station Landfill

Drawings TC0-C-02974, TC0-C-02975, and TC0-C-02976 have been provided for this Attachment and follow this page.

a PPL company
? 2013 GAI Consultants, Inc.
a PPL company
? 2013 GAI Consultants, Inc.

Attachment 32.pdf

32 - 1 ATTACHMENT 32

Minerals of Economic Value Below Site Trimble County Generating Station Landfill

No coal seams or minerals of economic value were identified on the rock boring logs included in Attachment 34. Additionally, the Trimble County Generating Station Landfill does not lie within the Eastern or Western K Y Coal Fields shown on the K Y Mine Mapping Information System's website (http://minemaps.ky.gov/).

Attachment 33.pdf

33 - 1 ATTACHMENT 33

Active or Inactive Deep Mines within 1,500 F eet of Waste Boundary Trimble County Generating Station Landfill

The Trimble County Generating Station Landfill does not lie within the Eastern or Western K Y Coal Fields shown on the K Y Mine Mapping Information System's website (http://minemaps.ky.gov/) and , therefore , no active or inactive deep min es were identified within

1,500 feet of the waste boundary.

Attachment 34.pdf

Revised June 2015 34-1 ATTACHMENT 34 Rock Boring Logs Trimble County Generating Station Landfill The following rock boring logs are included as Appendices in this Attachment:

Attachment 35.pdf

Revised June 2015 35-1 ATTACHMENT 35

Geologic Features Map Trimble County Generating Station Landfill

Drawing TC0-C-02978, designated as Attachment 35-1, has been provided for this Attachment and follows this page.

Note: Only springs that have been field identified, as reported in Table 37-1, are shown on Attachment 35-1. Duplicate spring points reported in Table 37-1 are not shown on Attachment 35-1. a PPL company ? 2013 GAI Consultants, Inc.

Attachment 36.pdf

Revised June 2015 36-1 ATTACHMENT 36 Hydrogeologic Characterization of the Site Trimble County Generating Station Landfill The groundwater conditions on site were initially investigated through the drilling of nine boreholes and the subsequent installation of multiple piezometers within the boreholes at various depths. The piezometers are labeled as PZ-xx on the Geologic Features and Rock Boring Locations (Drawing TC0-C-02978, designated as Attachment 35-1). A single borehole was d

Attachment 37.pdf

Revised June 2015 37-1 ATTACHMENT 37 Springs and Upgradient Wells Trimble County Generating Station Landfill A number of spring surveys have been performed for the proposed landfill project and are listed below. With the exception of the Dames and Moore Report, each of these reports are included in this Special Waste Permit Application in various locations, as noted below: "Hydrogeologic investigation of Ravines RA and RB, Trimble County Generating Station", Dames and Moore, da

Attachment 38.pdf	Revised June 2014 38-1 ATTACHMENT 38 List of Unconsolidated Materials within the Disposal Area Trimble County Generating Station Landfill The site has two types of unconsolidated materials on the site before encountering rock: Topsoil: Approximately one-foot thick. Clays: The clays are abundant over the entire site and can vary from zero-foot in valley floors to over 20 feet on the top of adjacent ridges. Some clay samples contained chert fragments. The hydrogeologic charac
Attachment 39.pdf	Revised June 2014 39-1 ATTACHMENT 39 Soils Inventory/Borrow Plan Trimble County Generating Station Landfill Table 39-1 depicts the estimated borrow requirements to construct and close the Trimble County Generating Station Landfill: Table 39-1: Estimated Borrow Requirements Item Quantity Six-Inch Prepared Subgrade on Areas of Exposed Rock 0.09 MCY 24-Inch Compacted Soil Liner 0.62 MCY 12-Inch Intermediate Cover 0.14 MCY 24-Inch Final Cover System 0.63 MCY Total 1.48 MCY
Attachment 40.pdf	Revised June 2014 40-1 ATTACHMENT 40 Soils Survey Trimble County Generating Station Landfill The soil survey map for the LG&E property is included as Drawings TC0-C-02980, TC0-C-02982, and TC0-C-02983 in this Attachment. Drawing TC0-C-02979 included under Attachment 39-1 identifies the location of all boring and test pit locations within the Project area. Figure 40-1 has been included to illustrate the various soil horizons discussed throughout this Attachment. Soils Within LG
Attachment 41.pdf	41-1 ATTACHMENT 41 Construction Quality Control Plan Trimble County Generating Station Landfill The Construction Quality Control Plan is provided on the following pages. Construction Quality Control Plan Louisville Gas & Electric Company Trimble County Generating Station Landfill Project Trimble County, Kentucky GAI Project Number: C100784.07 December 2013 Revised June 2014 Prepared for: Louisville Gas & Electric Company 820 West Broadway Louisville, Ke
Attachment 42.pdf	42-1 ATTACHMENT 42 Recordkeeping and Reporting System Trimble County Generating Station Landfill Groundwater Monitoring Submittals: The owner will submit the following documents to the KY-DWM: Groundwater Monitoring Well Construction Reports; Groundwater Monitoring Well Abandonment Reports (if required); Baseline Groundwater Quality Characterization Reports; Semi Annual Detection Monitoring Reports; and Assessment Monitoring Reports (if required). Addi
Attachment 43.pdf	43-1 ATTACHMENT 43 Surface Water Monitoring Plan Trimble County Generating Station Landfill The Surface Water Monitoring Plan is provided on the following pages. DRAFT

Attachment 43A.pdf

Revised June 2014 43A-1 ATTACHMENT 43A

Surface Water Monitoring Points Trimble County Generating Station Landfill

The locations for the following monitoring points are at the following coordinates:

Sampling
Point Number Location Description Latitude Longitude
SWMP-01 Background Point 38° 36' 19.940" -85° 24' 56.048"
SWMP-02 Downstream Point 38° 36' 2.909" -85° 24' 39.636"

DRAFT FOR CLIENT REVIEW 6/6/2014

Attachment 44.pdf

44-1 ATTACHMENT 44 Groundwater Monitoring Plan Trimble County Generating Station Landfill The Groundwater Monitoring Plan is provided on the following pages. Revised June 2015 ATTACHMENT 44 Groundwater Monitoring Plan Special Waste Permit Modification Application Trimble County Generating Station Landfill Trimble County, Kentucky December 2013 Revised June 2014 Revised June 2015 Prepared for: Louisville Gas & Electric Company 820 West Broadway L

Attachment 44A.pdf

Revised June 2015 44A-1 ATTACHMENT 44A Groundwater Monitoring Well Information Trimble County Generating Station Landfill The proposed /actual locations for the groundwater monitoring points are provided in the following table: Monitoring Well Number

Attachment 45.pdf	45-1 ATTACHMENT 45 Specifications for Intermediate and Final Cover Systems Trimble County Generating Station Landfill The specifications for the Intermediate and Final Cover Systems are provided on the following pages. Trimble County Generating Station Landfill Project Technical Specifications 1-i SPECIFICATION FOR INTERMEDIATE AND FINAL COVER SYSTEMS - SOIL TABLE OF CONTENTS 1.01 GENERAL 1-1 1.01.1 SUMMARY 1-1 1.01.2 REFERENCES 1-1 1.01.3 CQC 1-1 1.02 MATERIALS R
Attachment 46.pdf	46-1 ATTACHMENT 46 Final Cover System Risk Analysis Trimble County Generating Station Landfill Final Cover System The Final Cover System will be a minimum of 24 inches in thickness and include a minimum of 12 inches of recompacted cohesive soil below a vegetative soil layer. Specifications of the Final Cover System have been provided under Attachment 45. Summary of Calculations The following calculation sets were completed to support the Final Cover System. The calculation
Attachment 47.pdf	47-1 ATTACHMENT 47 Closure Plan Trimble County Generating Station Landfill The Closure Plan is provided on the following pages . Revised June 2015 ATTACHMENT 47 Closure Plan Special Waste Permit Modification Application Trimble County Generating Station Landfill Trimble County, Kentucky December 2013 Revised June 2014 Revised June 2015 Prepared for: Louisville Gas & Electric Company 820 West Broadway Louisville, Kentucky 40202-2218 P
Attachment 48.pdf	48-1 ATTACHMENT 48 Post-Closure Plan Trimble County Generating Station Landfill The Post-Closure Plan is provided on the following pages. ATTACHMENT 48 Post-Closure Plan Special Waste Permit Modification Application Trimble County Generating Station Landfill Trimble County, Kentucky December 2013 Prepared for: Louisville Gas & Electric Company 820 West Broadway Louisville, Kentucky 40202-2218 Prepared by: GAI Consultants, Inc. Pittsburg
Attachment 49.pdf	49 - 1 DEP 7094A (5/92) ATTACHMENT 49 Public Notice Trimble County Generating Station Landfill Pursuant to application number The Energy and Environment Cabinet, Division of Waste M anagement has receive d a special waste landfill permit application from: Name of Applicant L ouisville G as & E lectric Company Name of Facility Trimble County Generating Station
Attachment 50.pdf	50 - 1 DEP 7094A (5/92) ATTACHMENT 50 Public Notice Trimble County Generating

\#1 -- KY Division of Waste Management 03Jan14\DWM NOD No 2\LG&E Response NOD #2\Volume 5

TC0-C-02931 REV A.pdf

a PPL company

? 2013 GAI Consultants, Inc.

C/D

NOT FOR CONSTRUCTION

TC0-C-02932 REV B.pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

TC0-C-02933 REV B.pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

TC0-C-02934 REV A.pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

TC0-C-02935.PDF

TC0-C-02936 REV A.pdf

? 2013 GAI Consultants, Inc.

TC0-C-02937 REV A.pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

TC0-C-02938 REV A.pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

TC0-C-02939 REV A.pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

TC0-C-02940 REV A.pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

TC0-C-02941 REV A.pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

TC0-C-02942 REV A.pdf

a PPL company

? 2013 GAI Consultants, Inc.

TC0-C-02943 REV A.pdf

a PPL company ? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

TC0-C-02944 REV A.pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

TC0-C-02945 REV A.pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

TC0-C-02946.PDF

TC0-C-02947.PDF

TC0-C-02948.PDF

TC0-C-02949.PDF

TC0-C-02950.PDF

TC0-C-02951.PDF TC0-C-02952.PDF TC0-C-02953.PDF TC0-C-02954.PDF TC0-C-02955.PDF TC0-C-02956.PDF TC0-C-02957.PDF TC0-C-02958.PDF

TC0-C-02959.PDF

TC0-C-02960.PDF TC0-C-02961.PDF TC0-C-02962.PDF TC0-C-02963.PDF TC0-C-02964.PDF TC0-C-02965.PDF TC0-C-02966.PDF TC0-C-02967.PDF TC0-C-02968.PDF

TC0-C-02969.PDF

TC0-C-02970.PDF

TC0-C-02971.PDF

TC0-C-02972.PDF

TC0-C-02973.PDF

TC0-C-02981.pdf

a PPL company

? 2013 GAI Consultants, Inc.

\#1 -- KY Division of Waste Management 03Jan14\DWM Permit

10078400T003-FORM DEP 7094A-AJB.pdf

DEP 7094A (5/92) 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. Plea

\#1 -- KY Division of Waste Management 03Jan14\DWM Permit\Attachment Package

Attachment 1.pdf

1 - 1 ATTACHMENT 1 Information Concerning Additional Property Owners Trimble County Generating Station Landfill Louisville Gas & Electric Company (LG&E) has obtained sufficient property to construct the proposed Trimble County Generating Station Landfill

Attachment 10.pdf	10-1 ATTACHMENT 10 Waste Information Trimble County Generating Station Landfill The following waste information is provided on the following page of this Attachment: Estimated Yearly Disposal Rate; Estimated Average Daily Fill Rate; Estimated Maximum Daily Fill Rate; Total Site Volume; Site Life; Project Area Breakdown (including number of acres to be filled and permitted); and Buffer Information. Attachment 10 Waste Information Table Estimated Annua
Attachment 11.pdf	11 - 1 ATTACHMENT 11 Raw Materials and Waste Generation Process Trimble County Generating Station Landfi II The Trimble County Generating Station has two coal - fired generation units . Unit 1 is rated at 514 megawatts (net) and Unit 2 is rated at 760 megawatts (net) . Each unit has a Flue Gas Desulphurization (FGD) system to reduce emissions of sulfur dioxide (SO2) . The FGD system introduces a slurried alkaline sorbent (crushed limestone) to capture SO2 . Each unit
Attachment 12.pdf	12 - 1 ATTACHMENT 12 Physical and Chemical Characteristics of Waste Trimble County Generating Station Land fill Physical Characteristics B ucket samples of the following CCRs were obtained between December 2010 and September 2013 from Unit s 1 and 2 of the Trimble County Generating Station for physical testing: • Bottom Ash - Unit 1 an Unit 2; • Fly Ash - Unit 1 and Unit 2; • Gypsum - Unit 1 and Unit 2; and • Pyr
Attachment 13.pdf	13 - 1 ATTACHMENT 13 Equipment to Construct, Operate, and Maintain Special Waste Landfill Trimble County Generating Station Landfill The following equipment is expected to be used to construct, operate, and maintain the Special Waste Landfill Facility. • Backhoes; Dozers; • Scrapers; • Excavators; • Off - Road Haul Trucks; • Fixed Body and Articul Dump Trucks; • Dump Trucks; • Passenger Vehicles (Such As Pickup Trucks)
Attachment 14.pdf	14-1 ATTACHMENT 14 USGS Topographic Map Trimble County Generating Station Landfill

were obtained from the KY Geography Netwo

Attachment 15.pdf

Drawing TC0-C-02928 following this write-up includes the features requested within a one-mile radius of the waste boundary. The base mapping for Drawing TC0-C-02928 is the United States Geological Survey (USGS) 7.5-minute topographic Quadrangles of KY for Bedford (1984), Bethlehem (1987), Madison East (1994), and Madison West (1980). The following features

15 - 1 ATTACHMENT 15 Local Features Trimble County Generating Station Landfill

Attachment 16.pdf

Attachment 17.pdf

Attachment 18.pdf

Attachment 19.pdf

- 16-1 ATTACHMENT 16 Published Information on Archaeological Sites Trimble County Generating Station Landfill A Phase I cultural resources survey of the LG&E Project Area was conducted by MACTEC to identify archaeological sites within the proposed APE. Detailed results, maps, correspondence with the KHC and Phase I Archaeological Survey report, can be found in the Section 404 and 401 Permit Application [Application for the USACE Clean Water Act 404 Permit and the KY Division of Water
- 17 1 ATTACHMENT 17 Published Information on Critical Habitats Trimble County Generating Station Landfill No critical habitat for the Indiana bat is in the Project area by the USFWS. Critical habitat for the Indiana bat was designat ed on September 24, 1976 and included 11 caves and two abandoned mines in six states (41 FR 41914, September 24, 1976) . The nearest critical habitat for the Indiana bat includes a cave in Crawford County, Indiana (54 miles from the Action Area
- 18 1 ATTACHMENT 18 Published Information on Wetlands Trimble County Generating Station CCR Landfill The existing Trimble County Generating Station is located adjacent to the Ohio River . The proposed P roject site is located in the upper portion of a ravine referred to as Ravine B and extending into upland areas on LG&E property . The proposed landfill and associated facilities will result in impacts to 2 . 69 acres of wetlands as determined by field d

19 - 1 ATTACHMENT 19

General County Highway Map
Trimble County Generating Station Landfill

The Special Waste Landfill Facility is located in Trimble County, KY. Drawing TC0 - C - 02 930

Attachment 2.pdf

2 - 1

ATTACHMENT 2

Owners of Mineral Rights

Trimble County Generating Station Landfill

LG&E has determined that no mineral rights exceptions have been identified for the propert y owned and identified as LG&E in Attachment 1.

Attachment 20.pdf

20 - 1

ATTACHMENT 20

Design Plans

Trimble County Generating Station Landfill

The design plans, Drawings $\,$ TC0 - C - 02 931 $\,$ through TC0 - C - 02 973 , are included under Volume $\,$ 5 $\,$ of this Application.

Attachment 21.pdf

21-1

ATTACHMENT 21

Attachment 24.pdf
Attachment 25.pdf
Attachment 26.pdf

Attachment 23.pdf

- 23-1 ATTACHMENT 23 Surface Water Controls and Sediment Basin Design Trimble County Generating Station Landfill Surface water at the Trimble County Generating Station Landfill will be controlled using a series of collection channels, diversion channels, waterbars, slope drains, culverts and a Sediment Basin. Where possible, water contacting undisturbed areas will be conveyed to diversion channels and diverted around the facility. Water contacting the disturbed subgrade, existing a
- 24 1 ATTACHMENT 24 Potential for Gas Emissions and Odors Trimble County Generating Station Landfill The Special Waste Landfill Facility will receive C CRs (fly ash, FGD gypsum, bottom ash, and pyrites) produced by the Trimble County Generating Station . Additionally, bottom ash, a CCR produced by the Trimble County Generating Station, may be used as the drainage media for the landfill •'s leachate collection system . CCR materials are odorless an do not produce or ge
- 25 1 ATTACHMENT 25 Public Access Controls Trimble County Generating Station Landfill The Trimble County Generating Station Landfill facility will be used for the storage and placement of CCR materials. The facility will not receive any materials from the general public; as a result, a landfill entrance sign is not required, per 401 KAR 45:110. Primary access to the Trimble County Generating Station Landfil I can be obtained through the Trimble County Generat
- 26 1 ATTACHMENT 26 Working Face Requirements Trimble County Generating Station Landfill LG&E proposes the following working face requirements: Lift Heights: All Special Waste will be loosely placed in maximum 24 inch lifts then compacted by the equipment identified in Attachment 13 to obtain a minimum 92 percent Standard Proctor. Access: Access to the landfill will be limited to persons operating the landfill and others authorized by

Attachment 27.pdf

Attachment 28.pdf

Attachment 29.pdf

Attachment 3.pdf

Attachment 30.pdf

Attachment 31.pdf

27-1 ATTACHMENT 27 Bottom Liner Specifications Trimble County Generating Station Landfill The specifications for the bottom liner are provided on the following pages. Trimble County Generating Station Landfill Technical Specifications i BOTTOM LINER SPECIFICATIONS TABLE OF CONTENTS 1.0 STRUCTURAL FILL, PREPARED SUBGRADE, AND COMPACTED SOIL LINER 2.0 LINEAR LOW DENSITY POLYETHYLENE GEOMEMBRANE 3.0 CUSHION GEOTEXTILE 4.0 GEOCOMPOSITE DRAINAGE NET 5.0 LEACHATE C

Unreadable PDF by both ceTe and AF

- 29 1 ATTACHMENT 29 Description of Unconsolidated Materials within the Disposal Area Trimble County Generating Station Landfill Based on the test pit and boring information provided in Attachment 34, the site has two types of unconsolidated materials on the site before encountering rock:

 Topsoil: Approximately one foot thick.

 Clays: The cla are abundant over the entire site and can vary from zero foot in valley floors to over 20 feet on the
- 3 1 ATTACHMENT 3 Information Concerning Adjacent Property Owners Trimble County Generating Station Landfill The property owners identified on the following table of this Attachment are considered Adjacent Property Owners based on existing LG&E property . A property map, D rawing TC0 C 02 927, is provided under Attachment 1. 3 2 Adjacent Property Owners Parcel ID Property Owner Address City State Zip Code Telep hone Number DB 28 PG 58
- 30-1 ATTACHMENT 30 Influence of Fracture Zones on Infiltration and Movement of Water and Groundwater Trimble County Generating Station Landfill The geologic structure, as depicted by the structural contours on Drawing TC0-C-02974 (Attachment 31-1), appears to have played a role in the formation of the drainage pattern at the proposed landfill location. The orientation of the valley generally coincides with the structural dip locally (i.e., from east to west). The fractures inf

31 - 1 ATTACHMENT 31

Attachment 32.pdf

32 - 1 ATTACHMENT 32

Minerals of Economic Value Below Site Trimble County Generating Station Landfill

No coal seams or minerals of economic value were identified on the rock boring logs included in Attachment 34 . Additionally, the Trimble County Generating Station Landfill does not lie within the Eastern or Western K Y Coal Fields shown on the K Y Mine Mapping Information System's website (http://minemaps.ky.gov/).

Attachment 33.pdf

33 - 1 ATTACHMENT 33

Active or Inactive Deep Mines within 1,500 F eet of Waste Boundary Trimble County Generating Station Landfill

The Trimble County Generating Station Landfill does not lie within the Eastern or Western K Y Coal Fields shown on the K Y Mine Mapping Information System's website (http://minemaps.ky.gov/) and , therefore , no active or inactive deep min es were identified

Attachment 34.pdf

Attachment 35.pdf

34-1 ATTACHMENT 34 Boring and Test Pit Logs Trimble County Generating Station Landfill The following boring and test pit logs are included as Appendices in this Attachment: Appendix 34.1: Soil and Rock Borings completed by GAI between 2010 and 2013; Appendix 34.2: Test Pits completed by GAI between 2010 and 2013; Appendix 34.3: Soil Borings and Test Pits completed by MACTEC during 2006; and Appendix 34.4: Exploratory Borings completed by Louisville Gas and Electric

35 - 1 ATTACHMENT 35

Geologic Features Map Trimble County Generating Station Landfill

Drawing TC0 - C - 02978 has been provided for this Attachment and follows this page.

Attachment 36.pdf

Attachment 37.pdf

36-1 ATTACHMENT 36 Hydrogeologic Characterization of the Site Trimble County Generating Station Landfill The uppermost aquifer at the site, or the "first" water-bearing zone, occurs within the upper few feet of rock (i.e., near the top-of-rock) along the "head" of the valley (i.e., the tops of the ridges). Groundwater tends to occur irregularly across the site within the soil overburden, and is even absent at some locations. The occurrence of groundwater near the top-of-rock and occ

37 - 1 ATTACHMENT 37 Springs and Upgradient Wells Trimble County Generating Station Landfill A spring survey was completed by MACTEC in 2009 for the entire R avine B where the landfill is proposed. GAI on January 6 and 7, 2011 and May 22, 2013

Attachment 38.pdf	38 - 1 ATTACHMENT 38 List of Unconsolidated Materials within the Disposal Area Trimble County Generating Station Landfill The site has two types of unconsolidated materials on the site before encountering rock: • Topsoil: Approximately one - foot thick. • Clays: T clays are abundant over the entire site and can vary from zero - f oo t in valley floors to over 20 feet on the top of adjacent ridges. Some clay samples contained chert fragments. The hydr
Attachment 39.pdf	39-1 ATTACHMENT 39 Soils Inventory/Borrow Plan Trimble County Generating Station Landfill Table 39-1 depicts the estimated borrow requirements to construct and close the Trimble County Generating Station Landfill: Table 39-1: Estimated Borrow Requirements Item Quantity Six-Inch Prepared Subgrade on Areas of Exposed Rock 0.08 MCY 24-Inch Compacted Soil Liner 0.63 MCY 12-Inch Intermediate Cover 0.14 MCY 24-Inch Final Cover System 0.63 MCY Total 1.48 MCY Drawing TC0-C-02979
Attachment 4.pdf	4-1 ATTACHMENT 4 Deeds or Option Information Trimble County Generating Station Landfill Deeds to property owned by LG&E as of the Special Waste Permit Application submittal date are provided in Appendix 4.1 of this Attachment. At this time, LG&E has obtained sufficient property to construct the proposed Project, located in Trimble County, KY. If additional properties adjacent to the proposed landfill become available, LG&E may acquire those properties for borrow areas, buffers, or
Attachment 40.pdf	40 - 1 ATTACHMENT 40 Soils Survey Trimble County Generating Station Landfill The soil survey map for the LG&E pro perty is included as Drawing TC0 - C - 02980 in this Attachment 40 - 1. Drawing TC0 - C - 02977 included under Attachment 34 - 1 identifies the location of all boring and test pit locations within the Project area . Figure 40 - 1 has been included to illustrate the various soil horizons discussed throughout this Attachment. Soils Within LG&E Propert
Attachment 41.pdf	41-1 ATTACHMENT 41 Construction Quality Control Plan Trimble County Generating Station Landfill The Construction Quality Control Plan is provided on the following pages. Construction Quality Control Plan Louisville Gas & Electric Company Trimble County Generating Station Landfill Project Trimble County, Kentucky GAI Project Number: C100784.07 December 2013 Prepared for: Louisville Gas & Electric Company 820 West Broadway Louisville, Kentucky 40202 Pre
Attachment 42.pdf	42 - 1 ATTACHMENT 42 Recordkeeping and Reporting System Trimble County Generating

Attachment 43.pdf

Attachment 43A.pdf

43 - 1 ATTACHMENT 43 Surface Water Monitoring Plan Trimble County Generating Station Landfill The Surface Water Monitoring Plan is provided on the following pages .

ATTACHMENT 43 Surface Water Monitoring Plan Special Waste Permit Modification Application Trimble County Generating Station Landfill Trimble County , Kentucky December 2013 Prepared for Louisville Gas & Electric Company 820 West Broadway Louisville, Kentucky 40202

43 - 2 ATTACHMENT 43A

Surface Water Monitoring Points
Trimble County Generating Station Landfill

The locations for the following monitoring points are at the following coordinates:

Sampling

Point Number Location Description Latitude Longitude

SWMP - 01 Baseline Upstream Point 38° 3 6 ' 26.107 " - 85° 24' 24.235 "

SWMP - 02 Downstream Point 38° 36' 2.909" - 85° 24' 39.636"

Attachment 44.pdf

44-1 ATTACHMENT 44 Groundwater Monitoring Plan Trimble County Generating Station Landfill The Groundwater Monitoring Plan is provided on the following pages.

ATTACHMENT 44 Groundwater Monitoring Plan Special Waste Permit Modification Application Trimble County Generating Station Landfill Trimble County, Kentucky December

Attachment 44A.pdf	44 - 2 ATTACHMENT 44A Groundwater Monitoring Well Information Trimble County Generating Station Landfill The proposed locations for the groundwater monitoring points are at the following coordinates: Monitoring Well Number Type Latitude (approx.) Longitude (approx.) Elevation (MSL) (approx.) Proposed Depth (approx. feet) Assumed Depth to Water (approx. feet) GWMP - 01 A Background 38° 35' 55.691" - 85° 24' 13.399" 555 31.61 20 GW
Attachment 45.pdf	45-1 ATTACHMENT 45 Specifications for Intermediate and Final Cover Systems Trimble County Generating Station Landfill The specifications for the Intermediate and Final Cover Systems are provided on the following pages. Trimble County Generating Station Landfill Project Technical Specifications 1-i SPECIFICATION FOR INTERMEDIATE AND FINAL COVER SYSTEMS - SOIL TABLE OF CONTENTS 1.01 GENERAL 1-1 1.01.1 SUMMARY 1-1 1.01.2 REFERENCES 1-1 1.01.3 CQC 1-1 1.02 MATERIALS R
Attachment 46.pdf	46-1 ATTACHMENT 46 Final Cover System Risk Analysis Trimble County Generating Station Landfill Final Cover System The Final Cover System will be a minimum of 24 inches in thickness and include a minimum of 12 inches of recompacted cohesive soil below a vegetative soil layer. Specifications of the Final Cover System have been provided under Attachment 45. Summary of Calculations The following calculation sets were completed to support the Final Cover System. The calculation
Attachment 47.pdf	47-1 ATTACHMENT 47 Closure Plan Trimble County Generating Station Landfill The Closure Plan is provided on the following pages. ATTACHMENT 47 Closure Plan Special Waste Permit Modification Application Trimble County Generating Station Landfill Trimble County, Kentucky December 2013 Prepared for: Louisville Gas & Electric Company 820 West Broadway Louisville, Kentucky 40202-2218 Prepared by: GAI Consultants, Inc. Pittsburgh Office 385 E
Attachment 48.pdf	48-1 ATTACHMENT 48 Post-Closure Plan Trimble County Generating Station Landfill The Post-Closure Plan is provided on the following pages. ATTACHMENT 48 Post-Closure Plan Special Waste Permit Modification Application Trimble County Generating Station Landfill Trimble County, Kentucky December 2013 Prepared for: Louisville Gas & Electric Company 820 West Broadway Louisville, Kentucky 40202-2218 Prepared by: GAI Consultants, Inc. Pittsburg

Attachment 49.pdf

49 - 1 DEP 7094A (5/92) ATTACHMENT 49 Public Notice Trimble County Generating

Attachment 5.pdf	5 - 1 ATTACHMENT 5 Facilities Impact on Transportation Routes, Prime Agricultural Lands, Water Resources, Historic Properties, and Endangered or Threatened Species Trimble County Generating Station Landfill Transportation Routes The proposed coal combustion residuals (CCR) landfill site is currently accessed via KY State Route 625 (identified as Mt. Pleasant Road or Peck Pike Road) located approximately 0.5 - mile northeast of the proposed CCR landfill. Wentwo r
Attachment 50.pdf	50 - 1 DEP 7094A (5/92) ATTACHMENT 50 Public Notice Trimble County Generating Station Landfill Pursuant to application number The Energy and Environment Cabinet, Division of Waste M anagement has received a special waste landfill permit application from, and has prepared a draft permit for: Name of Applicant Louisville Gas & Electric Company Name of Facility Trimble County Generating Station
Attachment 6.pdf	6 - 1 ATTACHMENT 6 Variances Trimble County Generating Station Landfill LG&E and GAI request the following variances: Attachment 15 - Lo cal Features • Drawing depicte at a scale of one - inch equals 600 feet to show all features on one drawing. Attachment 20 - Design Plans • Development Plans depicted at a scale of one - inch equals 200 feet so tha the overall landfill and phasing can be show n on individual sheets in lieu of multiple sheets
Attachment 7.pdf	7-1 ATTACHMENT 7 Compliance with Local Planning and Zoning Trimble County Generating Station Landfill Public utilities, such as LG&E, are exempt from local planning and zoning ordinances based on the KY Revised Statutes, Chapter 100, Section 324. The statute is provided on the following page of this Attachment. 100.324 Public utility facilities excepted Review of proposed acquisition, disposition, or change by commission. (1) All other provisions of this chapter to the cont
Attachment 8.pdf	8-1 ATTACHMENT 8
	Assistance from Local Fire District Trimble County Generating Station Landfill

Attachment 9.pdf

9-1 ATTACHMENT 9

Past Performance Information Trimble County Generating Station Landfill

The Past Performance Information, including DEP Form 7094J for LG&E and all key personnel, is provided on the following pages.

\#1 -- KY Division of Waste Management 03Jan14\DWM Permit\Drawing Package

10078400T003-FORM DEP 7094A-AJB.pdf

DEP 7094A (5/92) 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. Plea

The

Attachment 1.pdf 1 - 1 ATTACHMENT 1 Information Concerning Additional Property Owners Trimble County Generating Station Landfill Louisville Gas & Electric Company (LG&E) has obtained sufficient property to construct the proposed Trimble County Generating Station Landfill (Project), located in Trimble County, Kentucky (KY). If additional properties adjacent to the proposed landfill become available, LG&E may acquire those properties for borrow areas, buffers, or equipment/ m 10-1 ATTACHMENT 10 Waste Information Trimble County Generating Station Landfill Attachment 10.pdf following waste information is provided on the following page of this Attachment: Estimated Yearly Disposal Rate: Estimated Average Daily Fill Rate: Estimated Maximum Daily Fill Rate: Total Site Volume: Site Life: Project Area Breakdown (including number of acres to be filled and permitted); and Buffer Information. Attachment 10 Waste Information Table **Estimated Annua** Attachment 11.pdf 11 - 1 ATTACHMENT 11 Raw Materials and Waste Generation Process Trimble County Generating Station Landfi II The Trimble County Generating Station has two coal - fired generation units. Unit 1 is rated at 514 megawatts (net) and Unit 2 is rated at 760 megawatts (net). Each unit has a Flue Gas Desulphurization (FGD) system to reduce emissions of sulfur dioxide (SO2). The FGD system introduces a slurried alkaline sorbent (crushed limestone) to capture SO2. Each unit 12 - 1 ATTACHMENT 12 Physical and Chemical Characteristics of Waste Trimble County Attachment 12.pdf Generating Station Land fill Physical Characteristics B ucket samples of the following CCRs were obtained between December 2010 and September 2013 from Unit s 1 and 2 of the Trimble County Generating Station for physical testing: • Bottom Ash - Unit 1 an Unit 2; • Fly Ash - Unit 1 and Unit 2; • Gypsum - Unit 1 and Unit 2; and • Pyr 13 - 1 ATTACHMENT 13 Equipment to Construct, Operate, and Maintain Special Waste Attachment 13.pdf Landfill Trimble County Generating Station Landfill The following equipment is expected to be used to construct, operate, and maintain the Special Waste Landfill Facility. • Backhoes; Dozers; • Scrapers; • Excavators; • Off - Road Haul Trucks; • Fixed Body and Articul Dump Trucks; • Dump Trucks; • Passenger Vehicles (Such As Pickup Trucks) 14-1 ATTACHMENT 14 USGS Topographic Map Trimble County Generating Station Landfill Attachment 14.pdf Drawing TC0-C-02928 following this write-up includes the features requested within a one-mile

> radius of the waste boundary. The base mapping for Drawing TC0-C-02928 is the United States Geological Survey (USGS) 7.5-minute topographic Quadrangles of KY for Bedford (1984),

Attachment 15.pdf

Attachment 16.pdf

Attachment 17.pdf

Attachment 18.pdf

Attachment 19.pdf

- 15 1 ATTACHMENT 15 Local Features Trimble County Generating Station Landfill Drawing TC0 C 02 9 2 9 following this page includes the features requested as follows: Feature Source Date Published Property Lines MACTEC survey and Public Valuation Assessment 2006 through 2010 Adjacent Property Owners MACTEC survey and Public Valuation Assessment 2013 Permit Area (Impact Boundary) Design drawings as shown in Attachment 20 2013 Fill Area (Wast
- 16-1 ATTACHMENT 16 Published Information on Archaeological Sites Trimble County Generating Station Landfill A Phase I cultural resources survey of the LG&E Project Area was conducted by MACTEC to identify archaeological sites within the proposed APE. Detailed results, maps, correspondence with the KHC and Phase I Archaeological Survey report, can be found in the Section 404 and 401 Permit Application [Application for the USACE Clean Water Act 404 Permit and the KY Division of Water
- 17 1 ATTACHMENT 17 Published Information on Critical Habitats Trimble County Generating Station Landfill No critical habitat for the Indiana bat is in the Project area by the USFWS. Critical habitat for the Indiana bat was designat ed on September 24, 1976 and included 11 caves and two abandoned mines in six states (41 FR 41914, September 24, 1976). The nearest critical habitat for the Indiana bat includes a cave in Crawford County, Indiana (54 miles from the Action Area
- 18 1 ATTACHMENT 18 Published Information on Wetlands Trimble County Generating Station CCR Landfill The existing Trimble County Generating Station is located adjacent to the Ohio River . The proposed P roject site is located in the upper portion of a ravine referred to as Ravine B and extending into upland areas on LG&E property . The proposed landfill and associated facilities will result in impacts to 2 . 69 acres of wetlands as determined by field d

19 - 1 ATTACHMENT 19

General County Highway Map
Trimble County Generating Station Landfill

Attachment 2.pdf

2 - 1

ATTACHMENT 2

Owners of Mineral Rights
Trimble County Generating Station Landfill

LG&E has determined that no mineral rights exceptions have been identified for the propert y owned and identified as LG&E in Attachment 1.

Attachment 20.pdf

20 - 1

ATTACHMENT 20

Design Plans

Trimble County Generating Station Landfill

The design plans, Drawings $\,$ TC0 - C - 02 931 $\,$ through TC0 - C - 02 973 , are included under Volume $\,$ 5 $\,$ of this Application.

Attachment 24.pdf	
Attachment 25.pdf	
Attachment 26.pdf	

Attachment 23.pdf

- 23-1 ATTACHMENT 23 Surface Water Controls and Sediment Basin Design Trimble County Generating Station Landfill Surface water at the Trimble County Generating Station Landfill will be controlled using a series of collection channels, diversion channels, waterbars, slope drains, culverts and a Sediment Basin. Where possible, water contacting undisturbed areas will be conveyed to diversion channels and diverted around the facility. Water contacting the disturbed subgrade, existing a
- 24 1 ATTACHMENT 24 Potential for Gas Emissions and Odors Trimble County Generating Station Landfill The Special Waste Landfill Facility will receive C CRs (fly ash, FGD gypsum, bottom ash, and pyrites) produced by the Trimble County Generating Station . Additionally, bottom ash, a CCR produced by the Trimble County Generating Station, may be used as the drainage media for the landfill •'s leachate collection system . CCR materials are odorless an do not produce or ge
- 25 1 ATTACHMENT 25 Public Access Controls Trimble County Generating Station Landfill The Trimble County Generating Station Landfill facility will be used for the storage and placement of CCR materials. The facility will not receive any materials from the general public; as a result, a landfill entrance sign is not required, per 401 KAR 45:110. Primary access to the Trimble County Generating Station Landfil I can be obtained through the Trimble County Generat
- 26 1 ATTACHMENT 26 Working Face Requirements Trimble County Generating Station Landfill LG&E proposes the following working face requirements: Lift Heights: All Special Waste will be loosely placed in maximum 24 inch lifts then compacted by the equipment

Attachment 27.pdf

Attachment 28.pdf

Attachment 29.pdf

Attachment 3.pdf

Attachment 30.pdf

Attachment 31.pdf

27-1 ATTACHMENT 27 Bottom Liner Specifications Trimble County Generating Station Landfill The specifications for the bottom liner are provided on the following pages. Trimble County Generating Station Landfill Technical Specifications i BOTTOM LINER SPECIFICATIONS TABLE OF CONTENTS 1.0 STRUCTURAL FILL, PREPARED SUBGRADE, AND COMPACTED SOIL LINER 2.0 LINEAR LOW DENSITY POLYETHYLENE GEOMEMBRANE 3.0 CUSHION GEOTEXTILE 4.0 GEOCOMPOSITE DRAINAGE NET 5.0 LEACHATE C

Unreadable PDF by both ceTe and AF

- 29 1 ATTACHMENT 29 Description of Unconsolidated Materials within the Disposal Area Trimble County Generating Station Landfill Based on the test pit and boring information provided in Attachment 34, the site has two types of unconsolidated materials on the site before encountering rock:

 Topsoil: Approximately one foot thick.

 Clays: The cla are abundant over the entire site and can vary from zero foot in valley floors to over 20 feet on the
- 3 1 ATTACHMENT 3 Information Concerning Adjacent Property Owners Trimble County Generating Station Landfill The property owners identified on the following table of this Attachment are considered Adjacent Property Owners based on existing LG&E property . A property map, D rawing TC0 C 02 927, is provided under Attachment 1. 3 2 Adjacent Property Owners Parcel ID Property Owner Address City State Zip Code Telep hone Number DB 28 PG 58
- 30-1 ATTACHMENT 30 Influence of Fracture Zones on Infiltration and Movement of Water and Groundwater Trimble County Generating Station Landfill The geologic structure, as depicted by the structural contours on Drawing TC0-C-02974 (Attachment 31-1), appears to have played a role in the formation of the drainage pattern at the proposed landfill location. The orientation of the valley generally coincides with the structural dip locally (i.e., from east to west). The fractures inf

Attachment 32.pdf

32 - 1 ATTACHMENT 32

Minerals of Economic Value Below Site Trimble County Generating Station Landfill

No coal seams or minerals of economic value were identified on the rock boring logs included in Attachment 34. Additionally, the Trimble County Generating Station Landfill does not lie within the Eastern or Western K Y Coal Fields shown on the K Y Mine Mapping Information System's website (http://minemaps.ky.gov/).

Attachment 33.pdf

33 - 1 ATTACHMENT 33

Active or Inactive Deep Mines within 1,500 F eet of Waste Boundary Trimble County Generating Station Landfill

The Trimble County Generating Station Landfill does not lie within the Eastern or Western K Y

Attachment 34.pdf

Attachment 35.pdf

34-1 ATTACHMENT 34 Boring and Test Pit Logs Trimble County Generating Station Landfill The following boring and test pit logs are included as Appendices in this Attachment: Appendix 34.1: Soil and Rock Borings completed by GAI between 2010 and 2013; Appendix 34.2: Test Pits completed by GAI between 2010 and 2013; Appendix 34.3: Soil Borings and Test Pits completed by MACTEC during 2006; and Appendix 34.4: Exploratory Borings completed by Louisville Gas and Electric

35 - 1 ATTACHMENT 35

Geologic Features Map Trimble County Generating Station Landfill

Drawing TC0 - C - 02978 has been provided for this Attachment and follows this page.

Attachment 36.pdf

36-1 ATTACHMENT 36 Hydrogeologic Characterization of the Site Trimble County Generating Station Landfill The uppermost aquifer at the site, or the "first" water-bearing zone, occurs within the upper few feet of rock (i.e., near the top-of-rock) along the "head" of the valley (i.e., the tops of the ridges). Groundwater tends to occur irregularly across the site within the soil overburden, and is even absent at some locations. The occurrence of groundwater near the top-of-rock and occ

Attachment 37.pdf

37 - 1 ATTACHMENT 37 Springs and Upgradient Wells Trimble County Generating Station

Attachment 38.pdf	38 - 1 ATTACHMENT 38 List of Unconsolidate County Generating Station Landfill The site has site before encountering rock: • Topsoil: Applications are abundant over the entire site and can varied feet on the top of adjacent ridges. Some clay satisfies
Attachment 39.pdf	39-1 ATTACHMENT 39 Soils Inventory/Borrow Landfill Table 39-1 depicts the estimated borrow Trimble County Generating Station Landfill: Tall Item Quantity Six-Inch Prepared Subgrade on Ar Compacted Soil Liner 0.63 MCY 12-Inch Interme System 0.63 MCY Total 1.48 MCY Drawing TC
Attachment 4.pdf	4-1 ATTACHMENT 4 Deeds or Option Information Deeds to property owned by LG&E as of the Spector provided in Appendix 4.1 of this Attachment. At the to construct the proposed Project, located in Trim to the proposed landfill become available, LG&E in buffers, or
Attachment 40.pdf	40 - 1 ATTACHMENT 40 Soils Survey Trimb soil survey map for the LG&E pro perty is included Attachment 40 - 1. Drawing TC0 - C - 02977 included to illustrate the various soil horizons dis Within LG&E Propert
Attachment 41.pdf	41-1 ATTACHMENT 41 Construction Quality C Landfill The Construction Quality Control Plan Construction Quality Control Plan Louisville Go

ated Materials within the Disposal Area Trimble has two types of unconsolidated materials on the pproximately one - foot thick. • Clays: T vary from zero - f oo t in valley floors to over 20 amples contained chert fragments. The hydr

w Plan Trimble County Generating Station row requirements to construct and close the able 39-1: Estimated Borrow Requirements Areas of Exposed Rock 0.08 MCY 24-Inch ediate Cover 0.14 MCY 24-Inch Final Cover C0-C-02979

ation Trimble County Generating Station Landfill ecial Waste Permit Application submittal date are this time, LG&E has obtained sufficient property mble County, KY. If additional properties adjacent may acquire those properties for borrow areas,

ble County Generating Station Landfill The ed as Drawing TC0 - C - 02980 in this ncluded under Attachment 34 - 1 identifies ithin the Project area . Figure 40 - 1 has been iscussed throughout this Attachment. Soils

Control Plan Trimble County Generating Station n is provided on the following pages. Louisville Gas & Electric Company Trimble County Construction Quality Control Plan Generating Station Landfill Project Trimble County, Kentucky GAI Project Number:

Attachment 42.pdf

Attachment 43.pdf

Attachment 43A.pdf

42 - 1 ATTACHMENT 42 Recordkeeping and Reporting System Trimble County Generating Station Landfill Groundwater Monitoring Submittals: The owner will submit the following documents to the KY - DWM: • Groundwater Monitoring Well Construction Reports; Groundwater Monitoring Well Abandonment Reports (if required); • Baseline Groundwate Quality Characterization Reports; • Semi Annual Detection Monitoring Reports; and Assessment Monitorin

43 - 1 ATTACHMENT 43 Surface Water Monitoring Plan Trimble County Generating Station Landfill The Surface Water Monitoring Plan is provided on the following pages .

ATTACHMENT 43 Surface Water Monitoring Plan Special Waste Permit Modification Application Trimble County Generating Station Landfill Trimble County , Kentucky December 2013 Prepared for Louisville Gas & Electric Company 820 West Broadway Louisville, Kentucky 40202

43 - 2 ATTACHMENT 43A

Surface Water Monitoring Points
Trimble County Generating Station Landfill

The locations for the following monitoring points are at the following coordinates:

Sampling

Point Number Location Description Latitude Longitude SWMP - 01 Baseline Upstream Point 38° 3 6 ' 26.107 " - 85° 24' 24.235 " SWMP - 02 Downstream Point 38° 3 6 ' 2.909 " - 85° 24' 39.636 "

Attachment 44A.pdf	44 - 2 ATTACHMENT 44A Groundwater Monitoring Well Information Trimble County Generating Station Landfill The proposed locations for the groundwater monitoring points are at the following coordinates: Monitoring Well Number Type Latitude (approx.) Longitude (approx.) Elevation (MSL) (approx.) Proposed Depth (approx. feet) Assumed Depth to Water (approx. feet) GWMP - 01 A Background 38° 35' 55.691" - 85° 24' 13.399" 555 31.61 20 GW
Attachment 45.pdf	45-1 ATTACHMENT 45 Specifications for Intermediate and Final Cover Systems Trimble County Generating Station Landfill The specifications for the Intermediate and Final Cover Systems are provided on the following pages. Trimble County Generating Station Landfill Project Technical Specifications 1-i SPECIFICATION FOR INTERMEDIATE AND FINAL COVER SYSTEMS - SOIL TABLE OF CONTENTS 1.01 GENERAL 1-1 1.01.1 SUMMARY 1-1 1.01.2 REFERENCES 1-1 1.01.3 CQC 1-1 1.02 MATERIALS R
Attachment 46.pdf	46-1 ATTACHMENT 46 Final Cover System Risk Analysis Trimble County Generating Station Landfill Final Cover System The Final Cover System will be a minimum of 24 inches in thickness and include a minimum of 12 inches of recompacted cohesive soil below a vegetative soil layer. Specifications of the Final Cover System have been provided under Attachment 45. Summary of Calculations The following calculation sets were completed to support the Final Cover System. The calculation
Attachment 47.pdf	47-1 ATTACHMENT 47 Closure Plan Trimble County Generating Station Landfill The Closure Plan is provided on the following pages. ATTACHMENT 47 Closure Plan Special Waste Permit Modification Application Trimble County Generating Station Landfill Trimble County, Kentucky December 2013 Prepared for: Louisville Gas & Electric Company 820 West Broadway Louisville, Kentucky 40202-2218 Prepared by: GAI Consultants, Inc. Pittsburgh Office 385 E
Attachment 48.pdf	48-1 ATTACHMENT 48 Post-Closure Plan Trimble County Generating Station Landfill The Post-Closure Plan is provided on the following pages. ATTACHMENT 48 Post-Closure Plan Special Waste Permit Modification Application Trimble County Generating Station

Attachment 49.pdf	49 - 1 DEP 7094A (5/92) ATTACHMENT 49 Public Notice Trimble County Generating Station Landfill Pursuant to application number The Energy and Environment Cabinet, Division of Waste M anagement has receive d a special waste landfill permit application from: Name of Applicant L ouisville G as & E lectric Company Name of Facility Trimble County Generating Station
Attachment 5.pdf	5 - 1 ATTACHMENT 5 Facilities Impact on Transportation Routes, Prime Agricultural Lands, Water Resources, Historic Properties, and Endangered or Threatened Species Trimble County Generating Station Landfill Transportation Routes The proposed coal combustion residuals (CCR) landfill site is currently accessed via KY State Route 625 (identified as Mt. Pleasant Road or Peck Pike Road) located approximately 0.5 - mile northeast of the proposed CCR landfill. Wentwo r
Attachment 50.pdf	50 - 1 DEP 7094A (5/92) ATTACHMENT 50 Public Notice Trimble County Generating Station Landfill Pursuant to application number The Energy and Environment Cabinet, Division of Waste M anagement has received a special waste landfill permit application from, and has prepared a draft permit for: Name of Applicant Louisville Gas & Electric Company Name of Facility Trimble County Generating Station
Attachment 6.pdf	6 - 1 ATTACHMENT 6 Variances Trimble County Generating Station Landfill LG&E and GAI request the following variances: Attachment 15 - Lo cal Features • Drawing depicte at a scale of one - inch equals 600 feet to show all features on one drawing. Attachment 20 - Design Plans • Development Plans depicted at a scale of one - inch equals 200 feet so tha the overall landfill and phasing can be show n on individual sheets in lieu of multiple sheets
Attachment 7.pdf	7-1 ATTACHMENT 7 Compliance with Local Planning and Zoning Trimble County Generating Station Landfill Public utilities, such as LG&E, are exempt from local planning and zoning ordinances based on the KY Revised Statutes, Chapter 100, Section 324. The statute is provided on the following page of this Attachment. 100.324 Public utility facilities excepted Review of proposed acquisition, disposition, or change by commission. (1) All other provisions of this chapter to the cont

8-1

Attachment 8.pdf

Attachment 9.pdf

9-1 ATTACHMENT 9

Past Performance Information
Trimble County Generating Station Landfill

The Past Performance Information, including DEP Form 7094J for LG&E and all key personnel, is provided on the following pages.

Table of Contents.pdf

i Special Waste Permit Modification Application Table of Contents Trimble County Generating Station Landfill VOLUME 1 Application for a Special Waste Landfill Permit Form DEP 7094A (5/92) Attachment 1: Information Concerning Additional Property Owners Drawing TC0 - C - 02927 - Property Map Attachment 2: Owners of Mineral Rights Attachment 3: Information Concerning Adjacent Property Owners Attachment 4: Deeds or

TC0-C-02927.pdf			
TC0-C-02928.PDF			
TC0-C-02929-Confidential.PD)F		
TC0-C-02929-Public.PDF			
TC0-C-02930.PDF			
TC0-C-02931.PDF			
TC0-C-02932.PDF			
TC0-C-02933.PDF			
TC0-C-02934.PDF			

TC0-C-02935.PDF

TC0-C-02936.PDF TC0-C-02937.PDF TC0-C-02938.PDF TC0-C-02939.PDF TC0-C-02940.PDF TC0-C-02941.PDF TC0-C-02942.PDF TC0-C-02943.PDF

TC0-C-02944.PDF

TC0-C-02945.PDF TC0-C-02946.PDF TC0-C-02947.PDF TC0-C-02948.PDF TC0-C-02949.PDF TC0-C-02950.PDF TC0-C-02951.PDF TC0-C-02952.PDF TC0-C-02953.PDF

TC0-C-02954.PDF

TC0-C-02955.PDF TC0-C-02956.PDF TC0-C-02957.PDF TC0-C-02958.PDF TC0-C-02959.PDF TC0-C-02960.PDF TC0-C-02961.PDF TC0-C-02962.PDF

TC0₅C-02963.PDF

TC0-C-02964.PDF TC0-C-02965.PDF TC0-C-02966.PDF TC0-C-02967.PDF TC0-C-02968.PDF TC0-C-02969.PDF TC0-C-02970.PDF TC0-C-02971.PDF TC0-C-02972.PDF

TC0-C-02973.PDF

Drawing TC0 - C - 02927 - Property Map Attachment 2: Owners of Mineral Rights

Attachment 3: Information Concerning Adjacent Property Owners Attachment 4: Deeds or

TC0-C-02974.PDF TC0-C-02975.PDF TC0-C-02976.PDF TC0-C-02977.PDF TC0-C-02978.PDF TC0-C-02979.PDF TC0-C-02980.PDF Table of Contents.pdf i Special Waste Permit Modification Application Table of Contents Trimble County Generating Station Landfill VOLUME 1 Application f or a Special Waste Landfill Permit Form DEP 7094A (5/92) Attachment 1: Information Concerning Additional Property Owners

Option Information App

2014-01-17 Final AA PDF.pdf

Alternatives Analysis Report LG&E and KU Services Company Trimble County Generating Station Landfill Project Trimble County, Kentucky GAI Project Number: C100784.05, Task 005 January 2014 Prepared for: LG&E and KU Services Company 220 West Main Street Louisville, Kentucky 40202 Prepared by: GAI Consultants, Inc. Pittsburgh Office 385 East Waterfront Drive Alternatives Analysis Report LG&E and KU Homestead, Pennsylvania 1512055005

Services Company Trimble County Generatin

\#2 -- USACE 404 Permit 25Apr14\Supplemental Alternative Analysis 18Dec14\#1-Cover Letter to USACE

Cover Letter Supp Alt Analysis to Corps 18Dec14.pdf

\#2 -- USACE 404 Permit 25Apr14\Supplemental Alternative Analysis 18Dec14\#2-Sections I to V. Figures and Tables

Sections I to V Fig Tables FINAL.pdf

Supple Trimbl ment e County to Alt LG& Genera erna E and K ting Sta Trimb tives U Servic tion Lan le Coun Dec Analy es Comp dfill Pro ty, Kent ember, sis any ject ucky 2014

Supplement to Alternatives Analysis LG&E and KU Services Company

Trimble County Generating Station Landfill Project Trimble County, Kentucky December, 2014

Prepared by: Lee Wilson and Associates, Inc. GAI Consultants, Inc. Civil & Environmental Consultants, Inc. Cover photo modified to show loc

\#2 -- USACE 404 Permit 25Apr14\Supplemental Alternative Analysis 18Dec14\#3-Appendices

Appendices FINAL.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County

Generating Station Landfill Project, Trimble County, Kentucky

APPENDIX I.E-1. EPA letter dated July 11, 2014

JUL 15 201~ UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 4 ATLANTA

FEDERAL CENTER 61 FORSYTH STREET ATLANTA, GEORGIA 30303-8960 Jut 1 1 zon

Colonel Luke T. Leonard

\#2 -- USACE 404 Permit 25Apr14\Supplemental Alternative Analysis 18Dec14\#4-Supporting Documents

Support Document I-1.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County

Generating Station Landfill Project, Trimble County, Kentucky

SUPPORT DOCUMENT I-1. Alternatives Analysis Report (GAI, 2014) Alternatives Analysis Report LG&E and KU Services Company Trimble County Generating Station Landfill Project Trimble County, Kentucky GAI Project Number: C100784.05, Task 005 January 2014

Prepared for: LG&E and KU Servi

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County

Support Document I-2.pdf

Support Document I-3.pdf

Supplement to Alternative Analysis
Louisville Gas and Electric Company
Trimble County Generating Station Landfill Project, Trimble County, Kentucky

SUPPORT DOCUMENT I-3. May 1996 Special Waste Landfill Permit No. 112-00003, Ravines A and B, Trimble County Station

Support Document I-4.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky

SUPPORT DOCUMENT I-4. CCR Disposal Landfill Application and Solid Waste Management Plan, Ravines A and B, Trimble County Station

Support Document III D-1-1.pdf	Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-1 Scans of Pages from 2012 RS Means Heavy Construction Cost Data for Unit Cost Development THE FOLLOWING PAGES ARE SCANS FROM THE 2012 RSMEANS HEAVY CONSTRUCTION COST DATA REFERENCE BOOK. HIGHLIGHTED LINE ITEMS ON THESE SCANS ARE INCLUDED IN ONE OR MORE OF THE UNIT
Support Document III D-1-10.pdf	Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-10 Trimble County Budgetary Cost Estimate – Capital Co st Line Item Development for North Route Haul Road Bridge C100784 LGE and KU Energy Services Trimble County Generating Station North Route Haul Road Bridge Over KY 1838 Made: Date: Chkd:
Support Document III D-1-11.pdf	Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-11 Transportation Costs Report: Bridge Costs – New Construction -For a medium sized bridge span, dimensions of 200 ft long and 60 ft wide

Support Document III D-1-12.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky

C100784.07, Task 007 / October 2014

SUPPORT DOCUMENT III.D-1-12 Capital Cost Line Item Development for Subgrade Preparation:

- -General Earthwork Soil
- -General Earthwork Rock Blasting
- -Stockpiling / Spoiling Excess Material

Support Document III D-1-13.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-13 Capital Cost Line Item Development for Landfill Composite Liner System: -Cushion Geotextile -60-mil LLDPE Geomembrane Cost Estimate Development for 60-mil LLDPE Geomembrane Unit Cost Unit Source 10 OZ/SY Cushion Geotextile \$0.95 SY Past GAI Project - Amos Quar

Support Document III D-1-14.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-14 Trimble County Budgetary Cost Estimate – Capital Co st Line Item Development for Groundwater Underdrain Drainag e Pipes and Leachate Collection System Drainage Pipes Total Landfill Cost Total La

Support Document III D-1-15.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County

Support Document III D-1-16.pdf	Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-16 Fenner Dunlop Project Cost Report Dated October 24, 2014 – River Loading/Transport/Unloading Operations Support Document III.D-1-16: All costs are taken from the Fenner Dunlop Project Cost Report (October 24, 2014) regarding river loading, transport, and unloadi
Support Document III D-1-17.pdf	Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-17 Additional Costs Incurred Relative to Case Study An alysis Page 1 of 6 Support Document III.D-1-17 Additional Costs Considered in Case Study Analysis This Support Document explains additional cost elem ents included in the Case Study cost analysis as line i
Support Document III D-1-18.pdf	Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-18 Capital Cost Line Item Development for Offsite CCR Disposal at Valley View Landfill and Sterling Ventu res Mine See phone log and price quote on the following two pages. MEMO - Republic Servic
Support Document III D-1-19.pdf	Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-19 Capital Cost Line Item Development for Pipe Conveyo r Cost of Operation SEE THE FOLLOWING PAGES FOR MORE INFORMATION. 1 Kevin Resnik, Jr. From: Kevin Resnik, Jr. Sent: Wednesday, November 12, 2014 1:34 PM To: Rhombus Harloff Cc: Kent Cockley; Amy Bartkus Subject: FW:
Support Document III D-1-2.pdf	Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-2 Trimble County Budgetary Cost Estimate –

Support Document III D-1-3.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-3 Fencing Cost Per Linear Foot Development Using 3D-R avine B Fencing Requirements Description Unit \$/Unit RS Means Reference Unit Amount Needed Cost Fencing \$49.03 L.F. Corner Posts 8', galv. Steel, 4" OD, set in conc. Ea. \$159.00 32.31.13.30.6725 1,011 \$160,749 Line

Support Document III D-1-4.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-4 Environmental Stream and Wetland In-Lieu and Mitiga tion Fees/Email Discussing Indiana Bat Mitigation Fees f rom Paul Puckett to Jarrett Beach Dated May 21, 2014 3 Under the wetland and stream compensatory mitigation Fee In-Lieu Of (FILO) program, the USACE direct

Support Document III D-1-5.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.0 7, Task 00 7 / October 2014 SUPPORT DOCUMENT III.D - 1 - 5 Cultural Resource Costs • GAI Cos Estimate Alternatives Analysis Report LG&E and KU Services Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky Page 30 C100784.05, Task 005 / January 2014 Table A.7 Summar

Support Document III D-1-6.pdf

Supplement to Alternative Analysis
Louisville Gas and Electric Company
Trimble County Generating Station Landfill Project, Trimble County, Kentucky

C100784.07, Task 007 / October 2014

SUPPORT DOCUMENT III.D-1-6
County and State Road Relocation Costs – GAI
Transportation Department Cost Estimate

Support Document III D-1-7.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-7 Capital Cost Line Item Development for Pipe Conveyor Transport /Email Discussing Pipe Conveyor Transport from Richard Munson of Beumer Group Dated October 4, 201 2 KPR 12/6/12 1 1 1 Kevin Resnik, Jr. Subject: RE: Trimble Alternatives Meeting Information Confir matio

Support Document III D-1-8.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky

C100784.0 7 , Task 00 7 / October 2014

SUPPORT DOCUMENT III.D - 1 - 8
Pipe Co nveyor Transport Transfer Station Line Item
Development

*From meeting with Beumer Group, October 2012. KPR 12/6/12 1 1

Support Document III D-1-9.pdf

Supplement to Alternative Analysis Louisville Gas and Electric Company Trimble County Generating Station Landfill Project, Trimble County, Kentucky C100784.07, Task 007 / October 2014 SUPPORT DOCUMENT III.D-1-9 Trimble County Budgetary Cost Estimate – Capital Co st Line Item Development for North Route – Haulage and Pipe Conveyor Road 3/22/2011 E-ON Trimble County Generating Station North Route - Haulage and Pipe Conveyor

\#3 -- US Army Corps of Engineers Nationwide Permit 09Sep13

USACE Nationwide Permit September 2014.pdf

\#4 -- KY Div of Water 401 Permit 25Apr14\401 WQC

401 KAR 45 250 - Special Waste Permit Fees.pdf

401 KAR 45:250. Special waste permit fees. RELATES TO: KRS 224.40 STATUTORY AUTHORITY: KRS 224.10-100, 224.40-3 05, 224.50-760 NECESSITY, FUNCTION, AND CONFORMITY: KRS 224. 10- 100(20) states that the cabinet may provide by admi nistrative regulation for a reasonable schedule of fees for the cost of process ing applications for permits, exemptions, and parti al exemptions. This chapter establishes standards for special waste sites or facilities. Th is administrative regulatio

\#4 -- KY Div of Water 401 Permit 25Apr14\401 WQC\401 Permit

401 Application.pdf

TABLE OF CONTENTS SECTION 401 WATER QUALITY CERTIFICATION APPLICATION LG&E TRIMBLE COUNTY GENERATING STATION CCR SPECIAL WASTE LANDFILL PROJECT APPLICATION FOR PERMIT TO CONSTRUCT ACROSS OR ALONG A STREAM

\#4 -- KY Div of Water 401 Permit 25Apr14\401 WQC\401 Permit\Figures

Figure 1A 1B 3A - 8x11.pdf

LG&E Trimble County Generating Station CCR Landfill Project January 21, 2014
FIGURES 401 WATER QUALITY CERTIFICATION KENTUCKY DIVISION OF WATER
LG&E TRIMBLE COUNTY GENERATING STATION CCR LANDFILL PROJECT LG&E AND KU
SERVICES COMPANY PROJECT LOCATION 0 20,000 40,00010,000 Scale in Feet DRAWN
BY: TER CHECKED: MAF DATE: 1/21/14 APPROVED: MAF LG&E TRIMBLE

COUNTYGENERATING STATIONCCR LANDFILL PROJECT FIGURE 1APROJECT VICINITY

MAP LEGEND Project Area Trimble County G

Figure 2 - 24x36.pdf

a PPL company

© 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

Figure 3B-F - 11x17.pdf

052RAVINE BW-400300-AA300-BB029-A215-C300-FF300-GG81
1-A811-B812-B280-B802-C810-B269-A815276-C283-C002276E816-B285222-B128-B067-C820289-B131-A288-B129-B276-C
C812-A810-A272803-A063-C289-A123116801124-B278803-B2
76-B276-A120002802-D823284-A283-A060045-A2

\#4 -- KY Div of Water 401 Permit 25Apr14\401 WQC\App A - E&SC

APPENDIX A - Narrative.pdf

January 21, 2014 APPENDIX A SUMMARY OF PLANNED SEDIMENT BASIN AND LEACHATE POND DESIGN 401 WATER QUALITY CERTIFICATION, KENTUCKY DIVISION OF WATER LG&E TRIMBLE COUNTY GENERATING STATION CCR LANDFILL PROJECT LG&E AND KU SERVICES COMPANY A - 1 January 21, 2014 APPENDIX A SUMMARY OF PLANNED SEDIMENT BASIN AND LEACHATE POND The Trimble County Generating Station Landfill Project includes the construction of a Sediment

Figure A.1 - PRELIM SedBasin&LeachPondlayout.pdf ?A

A.1

Figure A.2_TC0-C-03184.pdf

a PPL company

? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION

A

Figure A.3_TC0-C-03185.pdf

a PPL company ? 2013 GAI Consultants, Inc. NOT FOR CONSTRUCTION A

\#4 -- KY Div of Water 401 Permit 25Apr14\401 WQC\App B - Wetland & Stream Report
\#4 -- KY Div of Water 401 Permit 25Apr14\401 WQC\App B - Wetland & Stream Report\Appendix B.1 - Wetland Forms
Wetland 400.pdf

Wetlands 001-020, 200, 202, 300-302.pdf



Wetlands 650, 701-705.pdf

\#4 -- KY Div of Water 401 Permit 25Apr14\401 WQC\App B - Wetland & Stream Report\Appendix B.2 - Stream Forms

Streams 001-168.pdf

Unreadable PDF by both ceTe and AF

Streams 169-171.pdf

Streams 200-299.pdf

Unreadable PDF by both ceTe and AF

Streams 300 AA-HH.pdf

Streams 300MM-NN, 400-434.pdf

Streams 435-444.pdf

Streams 445-465.pdf

Streams 500-539.pdf

Streams 600-617.pdf

Streams 650-664.pdf

Streams 700-722.pdf

\#4 -- KY Div of Water 401 Permit 25Apr14\401 WQC\App B - Wetland & Stream Report\Figures

Figure B.1 - Overview 8.5x11.pdf

Copyright: © 2013 National Geographic Society, i-cubedPROJE CT LOCATION03,5007,0001,750Scale in FeetDRAWN BY: TERC HECKED: MAFDATE: 12/31/2013APPROVED: MAFLG&E TRIMBL E COUNTYGENERATING STATIONCCR LANDFILL PROJECTFIG URE B.1PROJECT AREA OVERVIEW MAPLEGENDProject Area

Figure B.2 - NWI - 8.5x11.pdf

PUSCHPUBHHPUBHHPUBHHPUBHHPUBHHPUBHHPUBHHPEM1 FHPUBHHPUBHHPUBHHPUBHHCopyright: © 2013 National Geographic Society, i-cubedPROJECT LOCATION03,5007,0001,750 Scale in FeetDRAWN BY: TERCHECKED: MAFDATE: 12/30/2013 APPROVED: MAFLG&E TRIMBLE COUNTYGENERATING STATIONCCR

Figure B.3 - Soils 11x17.pdf

PROJECT LOCATION02,0004,0001,000Scale in FeetDRAWN BY : TERCHECKED: MAFDATE: 12/30/2013APPROVED: MAFLG&E TRIMBLE COUNTYGENERATING STATIONCCR LANDFILL PROJE

Figure B.4 - Topo - 24x36.pdf

300-AA300-BB029-A067-B215-C826300-FF827-D300-D300-GG 300-C210811-A827-A311-C1811-B812-B300-B280-B802-C810-B269-A134069-B204-B815276-C283-C002827-B300-HH276-E8 16-B285095-C222-B128-B067-C828-A820289-B131-A288-B129 -B276-CC166-A806-A807812-A806-B810-A305-

Figure B.5 - Aerial - 24x36.pdf

300-AA300-BB029-A067-B215-C826300-FF827-D300-D300-GG 300-C210811-A827-A311-C1811-B812-B300-B280-B802-C810-B269-A134069-B204-B815276-C283-C002827-B300-HH276-E8 16-B285095-C222-B128-B067-C828-A820289-B131-A288-B129 -B276-CC166-A806-A807812-A806-B810-A305-

Wetland Report Text and Tables.pdf

Wetland Delineation, Stream Assessment, and Threatened and Endangered Species Habitat Study LG&E and KU Services Company Trimble County Generating Station CCR Landfill Project Trimble County, Kentucky GAI Project Number: C100784.07, Task 013 December 2013 Prepared for: LG&E and KU Services Company 220 West Main Street Louisville, Kentucky 40202 Prepared by: GAI Consultants, Inc. Greater Cincinnati and Pittsburgh Offices 385 East Waterfront Drive Homestead, Pennsylvania 15120-500

\#4 -- KY Div of Water 401 Permit 25Apr14\401 WQC\App C - JD Forms

ATT C - JD forms.pdf

LG&E Trimble County Generating Station CCR Landfill Project January 21, 2014
ATTACHMENT C USACE JURISDICTIONAL DETERMINATION (JD) FORMS SECTION
404, APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT LG&E TRIMBLE COUNTY
GENERATING STATION CCR LANDFILL PROJECT LG&E AND KU SERVICES COMPANY
Contents Attachment C.1 – Preliminary JD Form for Streams Attachment C.2 – Approved JD
Form for Isolated Streams in the Project Area Attachment C.3 – Approved JD Form for Isolated

\#5 -- KY Transportation Cabinet Bridge Permit SR 1838 30Jan14

KYTC Permit 2015.pdf

*Honorable Kurt J Boehm Attorney at Law Boehm, Kurtz & Lowry 36 East Seventh Street Suite 1510 Cincinnati, OHIO 45202 *Honorable Michael L Kurtz Attorney at Law Boehm, Kurtz & Lowry 36 East Seventh Street Suite 1510 Cincinnati, OHIO 45202

*Jody Kyler Cohn Boehm, Kurtz & Lowry 36 East Seventh Street Suite 1510 Cincinnati, OHIO 45202

*Louisville Gas and Electric Company 220 W. Main Street P. O. Box 32010 Louisville, KY 40232-2010

*Robert Conroy LG&E and KU Energy LLC 220 West Main Street Louisville, KENTUCKY 40202 *Honorable Kendrick R Riggs Attorney at Law Stoll Keenon Ogden, PLLC 2000 PNC Plaza 500 W Jefferson Street Louisville, KENTUCKY 40202-2828

*Gregory T Dutton Assistant Attorney General Office of the Attorney General Utility & Rate 1024 Capital Center Drive Suite 200 Frankfort, KENTUCKY 40601-8204 *Ed Staton VP - State Regulation and Rates Kentucky Utilities Company 220 W. Main Street P. O. Box 32010 Louisville, KY 40232-2010

*Joshua D Farley Howard & Farley 455 South Fourth Street, Suite 1250 Louisville, KENTUCKY 40202 *Ed Staton VP - State Regulation and Rates Louisville Gas and Electric Company 220 W. Main Street P. O. Box 32010 Louisville, KY 40202

*Dennis G Howard, II Howard & Farley 455 South Fourth Street, Suite 1250 Louisville, KENTUCKY 40202 *Honorable Allyson K Sturgeon Senior Corporate Attorney LG&E and KU Energy LLC 220 West Main Street Louisville, KENTUCKY 40202

*Kentucky Utilities Company 220 W. Main Street P. O. Box 32010 Louisville, KY 40232-2010 *John Walters, Jr. General Counsel/CFO Sterling Ventures, LLC 376 South Broadway Lexington, KENTUCKY 40508