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 FOR AND COST OF MULTIPHASE LANDFILLS AT THE TRIMBLE COUNTY AND GHENT GENERATING STATIONS	**)**	**CASE NO. 2015-00194**

STERLING VENTURES, LLC'S

POST HEARING BRIEF

OCTOBER 16, 2015

I. INTRODUCTION

Louisville Gas and Electric Company's and Kentucky Utility Company's (together the "Companies") requests for a declaratory order from the Commission confirming the 2009 certificate of public convenience and necessity ("CPCN") to build the Trimble County CCR Landfill (the "TC Landfill") should be denied. The Companies have clearly followed a strategy of justifying the need to spend enormous amounts of capital, versus diligently working to avoid spending capital and thereby reducing the Environmental Surcharge burden on ratepayers. The Companies' actions, combined with (1) flawed CCR landfill capacity requirement, (2) miscalculated beneficial use projections, (3) incomplete and incorrect financial analysis, (4) a failure to notify the Commission of massive cost overruns until the last minute (5) years of expenditures that have soared by hundreds of millions of dollars in the absence of a meaningful review of the costs of the TC Landfill, and (6) willful avoidance of a full and complete review of Sterling Ventures' underground limestone mine as an alternative as requested by the EPA, could serve as a case study in support of a recent story in the Wall St. Journal titled *Utilities' Profit Recipe: Spend More*.[1]

The Commission should not grant the Companies' request for a declaratory order confirming the 2009 CPCN for the TC Landfill. The discussion below shows that the Companies' only interest was to protect another $200 plus million increase in Environmental Rate Base, versus the required ratepayer focused evaluation of less expensive and more sensible alternatives. Therefore, the Commission should deny the Companies' requested confirmation of the CPCN for the TC Landfill, and enter an order finding that the Companies have failed to pursue the least cost reasonable alternative to building the TC Landfill.

[1] Smith, R (2015, April 20) Wall St. Journal

II. PROCEDURAL HISTORY, TIMELINE AND BACKGROUND

By Order dated December 23, 2009, the Public Service Commission (the "Commission") granted Kentucky Utilities Company ("KU") and Louisville Gas and Electric Company ("LG&E") (together the "Companies") a Certificate of Public Convenience and Necessity (the "CPCN") to build the first phase of a coal combustion residuals ("CCR") landfill at the Trimble County Generating Station.[2] The CPCN authorized the construction of the first phase of an on-site landfill (the "TC Landfill") and a CCR treatment facility (the "TC CCRT") (both the TC Landfill and the TC CCRT are referred to together as the "TC CCR Project"), with a total projected cost of $94 million ($70.5 million net of IMEA/IMPA ownership interest).[3]

On November 4, 2010, the Companies met with the Commission and revealed that the cost of the TC CCR Project had increased by $56 million due to cost estimates related to the transport portion of the TC CCRT (the TC CCRT has two components - the treatment facility which dries and treats the CCR, and a transportation component, which includes conveyors and a haul road to transport the CCR from the Treatment Facility to the TC Landfill).[4]

On October 12, 2011, the Companies prepared a Project Engineering Report, which indicated that the cost of the Phase I Trimble CCR Project had increased again to $210 Million, with the total cost of the TC Landfill projected to be $84 Million, and the total cost of the TC

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[2] *In the matter of Application of Kentucky Utilities Company for Certificates of Public Convenience and Necessity and Approval of Its 2009 Compliance Plan for Recovery by Environmental Surcharge,* KU Case No. 2009-00197 (the "2009 KU Application"), LG&E Case No. 2009-00198 (the "2009 LG&E Application") (Orders of December 23, 2009).

[3] *Id.*

[4] See *In the Matter of Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Declaratory Order Concerning the Construction for the Trimble County Landfill* Case N0 2015-00156, consolidated into Case 2015-00194. (the "TC Application") at Exhibit 4, page 9 of 85. *See also* Sterling Exhibit 02 at this Hearing, page 2.

CCRT to be $126 Million.[5] The Companies did not provide this updated cost projection to the Commission.

On September 12, 2013, the Companies prepared another Project Engineering Report which indicated that the cost of the Phase I Trimble CCR Project had increased yet again. The projected cost of Phase I had by this date increased to $277 Milllion, with the total cost of the TC Landfill projected to be $112 Million, and the total cost of the TC CCRT to be $165 Million.[6]

Just a few months prior to the September 12 meeting, on June 4, 2013, the Companies met with the Commission again to update the status of the Trimble Landfill Project, along with other ECR projects.[7] However, unlike the November 4, 2010 meeting, the Companies specifically excluded any cost updates or projections indicating that the TC Landfill Project was $282 Million, not $56 Million, over budget.[8]

On September 17, 2014, the Companies 'prepared another Project Engineering Report which indicated that the cost of the Phase I Trimble CCR Project had, not surprisingly, increased again. The projected cost of Phase I of the TC CCR project was now $322 Million, with the TC Landfill projected to be $148 Million, and the total cost of the TC CCRT to be $174 Million.[9]

October 3, 2014, Scott Straight, the Companies' Director of Engineering, requested certain information from Sterling Ventures regarding potentially using Sterling's underground limestone mine as an alternative to the TC Landfill.[10] This request was in response to US EPA comments on the Companies' 404 Clean Water Act Permit Application to the US Army Corps of Engineers ("USACE" or "Corps") that the Companies had failed to consider and evaluate

[5] *See* Sterling Exhibit 02 at this Hearing, page 4.
[6] *Id* at page 8.
[7] TC Application, Exhibit 4 36 of 85.
[8] *Id*.
[9] Sterling Exhibit 02 at this Hearing, page 4 and page 8
[10] See Sterling Complaint, Exhibit R

Sterling's mine and existing CCR beneficial reuse permit as part of the required 404 Alternatives Analysis.[11]

On October 24, 2014, Sterling responded to Mr. Straight's questions by email, but specifically noted that the responses were based upon limited knowledge of specific details concerning how the CCR would be staged at the plant, and the contemplated terms of the contractual obligations between the parties.[12] Sterling also noted that it might be appropriate to meet and discuss any issues and questions regarding its responses, as well as met with the USACE and KDWM. Sterling based its proposal on transporting the CCR by truck. However, Sterling indicated that it would be interested in discussing the option of constructing a new barge facility near Sterling's mine for CCR transportation.[13]

Nonetheless, and given the absence of certain important details cos elements, on October 31, 2014, Mr. Straight emailed Sterling in response that no more information was required to allow them to complete their evaluation. There was no request to meet, discuss, or obtain any additional information.[14]

On December 1, 2014, Sterling discovered that a barge permit had been issued to the owner of an industrial parcel of property in Warsaw, Kentucky near Sterling's mine. Sterling immediately contacted Mr. Straight by email about this development to ask if he would be interested in discussing the possibilities of this barge site. Mr. Straight responded on December 5, 2014 questioning whether an existing barge load-out facility was physically on the new site.

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[11] See Sterling Complaint, Exhibit O, Letter from Heather McTeer Toney, Regional Administrator, U.S. Environmental Protection Agency, to Colonel Christopher G. Beck, District Engineer, Louisville District Corps of Engineers (August 7, 2014), at 2

[12] *See* Exhibit R of Sterling Complaint in this matter, E-mail from John Walters, General Counsel/CFO, Sterling Ventures, LLC, to Scott Straight, Director of Project Engineering, LG&E and KU (Sept. 24, 2014).

[13] *Id*.

[14] *Id.* E-mail from Scott Straight, Director of Project Engineering, LG&E and KU, to John Walters, General Counsel/CFO, Sterling Ventures, LLC (Oct. 31, 2014)

Sterling responded that same day telling Mr. Straight that the riverside improvements were in place, but construction of a new load-out facility would be required. After that brief email exchange, Sterling heard nothing more from the Companies. Sterling sent two additional emails on December 11, and December 30, 2014 asking Mr. Straight if he wanted to sit down and talk about the newly discovered Warsaw, KY barge site option, with no response.[15]

In response to the EPA letter concerning the omission of Sterling from the 404 Alternatives Analysis, in December 2014, the Companies filed a Supplement to the 404(b)(l) Alternatives Analysis with the Corps (the "Supplemental Alternatives Analysis").[16] For the first time, in this Supplemental Alternatives Analysis, the Companies' addressed the Sterling beneficial use option as an alternative.[17]

The Supplemental Analysis included a barge/conveyor option to transport CCR to Sterling's mine that contemplated building a massive conveyor system up a steep mountain with accompanying roads, bridges, and ancillary facilities, on a remote rural parcel of property adjacent to Sterling's mine near Verona, Ky with no existing utility service or any other infrastructure (the "LG&E/KU Verona Ky Barge Plan")[18]. At no point during the investigation, planning, design or costing of the LG&E/KU Verona Ky Barge Plan did anyone from the Companies or its engineers contact Sterling. According to the Supplemental Analysis, the

[15] *Id.* E-mail from John Walters, General Counsel/CFO, Sterling Ventures, LLC, to Scott Straight, Director of Project Engineering, LG&E and KU (Dec. 1, 2014); E-mail from Scott Straight, Director of Project Engineering, LG&E and KU, to John Walters, General Counsel/CFO, Sterling Ventures, LLC (Dec. 5, 2014, 02:58 EST); E-mail from John Walters, General Counsel/CFO, Sterling Ventures, LLC, to Scott Straight, Director of Project Engineering, LG&E and KU (Dec. 5, 2014, 04:26 EST); *id.* (Dec. 11, 2014); *id.* (Dec. 30, 2014).
[16] *See* Exhibit P of Sterling's Complaint, excerpts from Lee Wilson and Associates, Inc., et al., *Supplement to Alternatives Analysis, LG&E and KU Services Company, Trimble County Generating Station Landfill Project*, December 2014 (Exhibit P includes portions of the Supplemental Analysis applicable to this Complaint).
[17] *Id.*
[18] *See* Exhibit P of Sterling Complaint, Table III.D-3 at 51 of 183

LG&E/KU Verona Ky Barge Plan would have a capital cost of over $100 million ($75 million net of IMPA/ IMEA).[19]

On February 5, 2015, the Companies met with the Commission Staff for a third time to discuss primarily the TC Landfill.[20] Part of this discussion specifically related to, and included, a least cost comparison of the TC Landfill to the LG&E/KU Verona Ky Barge Plan utilizing Sterling's mine as an alternative.[21]

The February 2015 analysis compared the TC Landfill to the LG&E/KU Verona Ky Barge Plan over multiple CCR disposal scenarios and concluded that the PVRR cost of the TC Landfill was significantly less than the LG&E/KU Verona Ky Barge Plan using Sterling's limestone mine.[22] However, the February 2015 meeting with the Commission Staff did not include any discussion, analysis or PVRR cost comparison between the TC Landfill and the alternative of building a barge unloading facility at Sterling's suggested Warsaw, KY barge (the "Sterling/Warsaw Alternative") location, versus building a barge unloading facility at the LG&E/KU Verona Ky Barge Plan location.[23]

On May 20, 2015, Sterling, as a customer of Kentucky Utilities Company, filed a Complaint against Kentucky Utilities Company asserting that the TC Landfill Project was not the least cost alternative, and that the CPCN for the Trimble Country Landfill Project should be revoked.

On May 22, 2015, the Companies filed their verified joint application for a declaratory order seeking confirmation of the 2009 CPCN allowing construction of the TC Landfill and

[19] *Id.* at 59 of 183.
[20] See the Companies Application, Exibit4
[21] *Id.*
[22] *Id.*
[23].*Id.*

related cost recovery (the "Companies Application"). As this time, the Companies still had not done a PVRR cost comparison between the TC Landfill and the alternative of building a barge unloading facility at Sterling's suggested Warsaw, KY barge location versus building a barge unloading facility at the LG&E/KU Verona Ky Barge Plan location. As support for their position in the Application that the TC Landfill was the least cost alternative, the Companies were still relying on the PVRR cost comparison between the TC Landfill as compared to building a barge off-load facility at the LG&E/KU Verona Ky Barge Plan location

On June 16, 2015, the Commission entered an order consolidating the Companies Application and Sterling's Complaint into a new case to investigate of the issues raised by the Companies and Sterling.

III. ARGUMENT

A. The legal standard for issuing a CPCN.

The Commission has the authority to review a previously approved CPCN. A proceeding examines the continued need for approved facilities in light of drastically changed economic conditions. New evidence not previously in existence at the time of the original proceedings and economic conditions not reasonably foreseeable at the time of the original proceedings is considered to determine if construction of the approved, but uncompleted, facilities is still necessary, reasonable and economically prudent. The Commission has previously initiated new proceedings to examine the continued need for approved facilities.[24]

Upon the Commission determining that there has been a drastic change in the economics on which a CPCN is based, or when a more economically viable alternative has emerged, Kentucky law prevents the Companies from building the Trimble Landfill until the

[24] *In the Matter of Chris Schimmoller and Connie Lemley v. Kentucky American Water Company*, Case No. 2009-00096 (Ky. P.S.C. 2009).

Commission's review of the CPCN determines that "public convenience and necessity require the service or construction."[25]

As a condition of the Commission granting the CPCN for a new facility, it must determine that there is both a need for the facility and "an absence of wasteful duplication resulting from the construction of the new system or facility."[26] This statutory mandate is designed to avoid "wasteful duplication" and to foreclose "excessive investment in relation to productivity or efficiency, [or] an unnecessary multiplicity of physical properties." *Id.* To demonstrate that a proposed facility does not result in wasteful duplication, the Commission has held that the applicant must demonstrate that a thorough review of all reasonable alternatives has been performed.[27]

B. The Companies have failed to perform a thorough review of a reasonable alternative.

The Companies' processes and procedures before the Commission with respect to providing a thorough and complete economic analysis of alternatives to the TC Landfill, as described below, are strikingly similar to the difficulties the EPA and Corp of Engineers had in trying to get the Companies to provide a true, accurate and thorough cost alternative comparison of the TC Landfill for purpose of the CWA 404 Alternatives Analysis. In multiple letters, the EPA repeatedly noted that the comparative economic analysis of alternatives to the proposed TC Landfill were incomplete and inadequate, and omitted a comprehensive review or even mention potentially viable alternatives.[28] The unfortunate reluctance of the Companies to present a true

[25] KRS § 278.020(1).
[26] *Kentucky Utilities Co.v. Public Service Com'n*, 252 S.W.2d 885, 890 (Ky. 1952).
[27] *In the matter of Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky Case No. 2005-00142* (Ky. P.S.C, 2005).
[28] *See generally* Sterling Complaint, Exhibit O

picture of the comparative economic cost of an alternative is easily understandable based on the actions of the Companies as described below.

As is indicated in Section II above, the Companies' February 2015 comparative financial analysis showed that the PVRR cost comparison between building the TC Landfill as compared to building a barge off-load facility at the LG&E/KU Verona Ky Barge Plan location, as follows:

Table 2 – February 2015 Analysis Results, All Scenarios (30-year study period)[29]

CCR Disposal Scenarios	CCRs Disposed of (MCY)	Present Value Revenue Requirement ($2014, 2015-2044, $M)					
		100% of Project			Companies' 75% Ownership Share		
		Onsite	Sterling *Verona Location*	Diff (Onsite less Sterling)	Onsite	Sterling *Verona Location*	Diff (Onsite less Sterling)
High Generation; No Beneficial Reuse	32.7	637	854	(217)	478	641	(163)
High Generation; Beneficial Reuse	28.2	614	811	(197)	461	608	(148)
Base Generation; No Beneficial Reuse	26.0	614	795	(181)	461	596	(136)
Base Generation; Beneficial Reuse	21.5	589	752	(164)	442	564	(122)
Low Generation; No Beneficial Reuse	21.3	595	754	(159)	446	566	(119)
Low Generation; Beneficial Reuse	16.8	556	711	(156)	417	533	(116)

The Companies based the above PVRR cost comparison on the following capital cost:[30]

[29] The PVRR calculations from the Companies' PVRR spreadsheet provided in the CONFIDENTIAL response to SV1-14, excel spreadsheet file name: "Attachment to SV 1-14_TCOffsite Storage_REDACTED" "Base Generation" in table is "2015 Plan" in excel spreadsheet.

[30] *See Evaluation of Trimble County Coal Combustion Residual Storage Options – 2015*, June 19, 2015 at pages 20 and 22, presented at the June 19, 2015 Informal Conference with Commission Staff (note that the capital cost represented are for 100% of the Project).

Capital Cost Assumptions ($2014 millions)

Onsite Alternative		**Sterling Alternative (*Verona Location*)**	
CCRT	172.1	CCRT	172.1
Pipe Conveyor	30.0	First Pipe Conveyor	30.0
Landfill Phase 1	135.3	Barge Loading/Unloading Facilities	43 .0
Landfill Phase 2	79.5	Second Pipe Conveyor to Truck Loading	89 .8
Landfill Phase 3	38.9	Site Preparation and Permitting	21.8
Landfill Phase 4	12 .1	Haul Road	26.0
Intermediate & Final Soil Cover	22.9	Barge Purchase	8.5
Total	**490.8**	**Total**	**391.2**

In response to data requests from the Commission Staff, the Companies were forced to revise the cost of the LG&E/KU Verona Ky Barge Plan and reduced the PVRR cost difference between the LG&E/KU Verona Ky Barge Plan as compared to the TC Landfill option by between $108 million and $63 Million from the Table 2-February 2015 Analysis shown above.

Table 4 – PVRR Results (Reflecting Companies' 75% Ownership Share, $2014, $Millions)[31]

Fuel Consumption	**Beneficial Reuse**	**Onsite Landfill PVRR**	**Sterling PVRR *Verona Location***	**PVRR Difference (Onsite Less**
Low Gas-Base Load	None	445	498	(53)
	Current	415	464	(50)
Mid Gas-Base Load	None	445	498	(54)
	Current	416	465	(49)
High Gas-Base Load	None	445	500	(55)
	Current	415	467	(52)

The capital costs used to compute the above PVRR comparative cost are also set forth below:

[31] Pre-filed testimony of David Sinclair, Aug 6, 2015 at 10.

Table 5 – Capital Cost Comparison (Mid Gas Price, Base Load Fuel Consumption, Current Beneficial Reuse, Reflecting Companies' 75% Ownership Share, $2014, $Million)[32]

Landfill Alternative		**Sterling Alternative *Verona***	
CCR Treatment	138	CCR Treatment	138
Pipe Conveyor	13	Pipe Conveyor	13
Haul Road	13	Haul Road	13
Landfill Phase 1	119	Barge Loading/Unloading	32
Landfill Phase 2	42	SV Pipe Conveyor/Haul Road	46
Landfill Phase 3	37	Site Preparation/ Permitting	23
Landfill Phase 4	14	Barge Purchase	6
Total	374	Total	271
Spent by 2018	246	Spent by 2018	271
Spent after 2018	128	Spent after 2018	0

However, the Companies again based the above cost comparison on building a barge unloading facility at the LG&E/KU Verona Ky Barge Plan location. The Companies still would not investigate, analyze, consider, or provide a cost comparison between the TC Landfill and the alternative of building a barge unloading facility at Sterling's suggested Warsaw, KY barge location, versus building a barge unloading facility at the LG&E/KU Verona Ky Barge Plan location.

Finally, on September 10, 2015, because of Sterling correcting obvious errors in the Companies projections, and Sterling running its own comparative cost calculations using the Companies' confidential PVRR spreadsheets, the Companies provided a cost comparison between the TC Landfill, and building a barge unloading facility at the Warsaw, KY location proposed by Sterling. The results are striking, as indicated below:

[32] Id at 11..

Table 7 – 30-year PVRR Results (Reflecting Companies' 75% Ownership Share, $2014, $Millions)[33]

Fuel Consumption	Beneficial Use	Onsite Landfill PVRR	Companies' Warsaw PVRR	PVRR Difference (Onsite Less Companies' Warsaw)
Low Gas-Base Load	None	445	464	(19)
	Current	415	418	(3)
Mid Gas-Base Load	None	445	465	(20)
	Current	416	419	(3)
High Gas-Base Load	None	445	468	(23)
	Current	415	422	(7)

Comparing Table 7 above to the February 2015 cost comparison first set forth in this section (Table 2), explains why the Companies insisted for so long on basing their cost comparison on the LG&E/KU Verona Ky Barge Plan location rather than the Warsaw location – eliminating almost $100 Million in up front capital cost in the Sterling/Warsaw Alternative has an obvious and dramatic effect on the Companies' claim that the TC Landfill is $100 plus million less expensive than barging the CCR to Sterling. Clearly, it is not.

By way of example, in the February 2015 analysis, the Companies claimed that assuming Base Generation and Beneficial Use, the TC Landfill was $122 Million less expensive that the LG&E/KU Verona Ky Barge Plan. Table 7 above instead indicates that using the Warsaw site for the barge unloading facility, under the same assumptions, even the Companies admit that the TC Landfill is only $3 Million less expensive when compared to the Sterling/Warsaw Alternative.

The capital costs used to compute the above PVRR comparative cost are also set forth below:

[33] Pre-filed Rebuttal Testimony of David Sinclair, September 10, 2015 at 13

Table 3 – Sterling Alternative's Capital Costs Reflecting Companies' 75% Ownership Share)[34]

Item	PSC 1-18 ($2014)	PSC 1-18 Model Inputs ($2013)	Warsaw Assumptions Based on Walters Testimony ($2013)	Companies' Warsaw Assumptions ($2013)
CCR Treatment	137,694,058	132,398,133	132,398,133	132,398,133
CCR Pipe Conveyor	13,118,441	12,613,885	-	12,613,885
Onsite Haul Road	12,675,000	12,187,500	-	12,187,500
Barge Loading/Unloading	32,346,600	31,102,500	31,102,500	31,102,500
SV Pipe Conveyor/Haul Road	46,184,709	44,408,374	-	-
Site Preparation/Permitting				
Property	3,735,576	3,591,900	-	-
Clearing/Site Prep	4,999,020	4,806,750	-	-
Fencing	1,309,733	1,259,359	-	-
Wetland/Stream Mitigation	3,369,000	3,239,423	-	-
Cultural Resources/Bats	2,716,526	2,612,045	-	-
LGE/KU Overheads and Engineering Support	6,976,320	6,708,000	-	5,088,754
Total Site Prep/Permitting	23,106,175	22,217,476	-	5,088,754
Barges	6,375,000	6,129,808	3,505,735	3,505,735
Total	271,499,983	261,057,676	167,006,368	196,896,507

And, there are obvious places to further reduce the cost of the Sterling/Warsaw Alternative. As Table 3 above indicates, the Companies' assumed that the cost of building the conveyor and the haul road between the TC CCRT and the TC Landfill would be the same cost as between the TC CCRT and a river barge on-load facility. However, as photos of the Trimble Generating site clearly indicate, the distance between the proposed TC CCRT and the TC Landfill would be approximately 3 times longer than the distance between TC CCRT and a river barge on-load facility.[35] It is also clear in those photos that a road already exists between the proposed TC CCRT and the river, which would eliminate building a completely new haul road.[36]

[34] *Id.* at 9
[35] Hearing, Sterling Exhibit 16
[36] Hearing, Sterling Exhibit 17

Simply by reducing the Companies' assumed cost of the proposed conveyor and haul road in Table 3 above by two thirds, and the corresponding LGE/KU overheads by 3.5% of the cost reduction, results in the Sterling/Warsaw Alternative being $16 million less expensive on a PVRR basis than the proposed TC Landfill using the Companies own PVRR spreadsheet analysis.[37] The above $16 Million PVRR saving does not even take into account that a haul road between the proposed CCRT and the river on-load facility already exists.

Also, there are clearly other areas where cost savings could be found. The $31,102,500 the Companies have projected for the Barge Loading Facility includes constructing a bridge style continuous loader system that can unload barges at 3,000 ton per hour.[38] At 240 work days a year, based on an 8 hour work day, this facility could unload 5,760,000 tons – 6.5 times more than the Companies even inflated projections of net CCR production. (See discussion below). The Barge Loading facility was designed to load 1,400 tons per hour[39] - 3 times the Companies projections.

Between 2009 and 2015, the capital cost of Phase I of the Trimble Landfill Project increased by over 400%. In 7 months, the comparative PVRR cost difference between the TC Landfill and the alternative to barge to Sterling decreased by 4,000% simply by changing the barge location from the Verona location to Sterling's proposed Warsaw barge location. Five of those months were unnecessarily consumed in this case by the Companies staunchly defending a comparison of the Sterling alternative based on the LG&E/KU Verona Ky Barge Plan location rather than the Warsaw location proposed by Sterling.

[37] Confirmation of $16 million least cost representation by making identified capital changes to Companies'CONFIDENTIAL PVRR excel spreadsheet provided as Exhibit 1 to Sinclair September 10, 2015 Pre-filed Rebuttal Testimony, Tbl7_TCLandfillwithSV30Years_LKEWarsaw _REDACTED"
[38] Hearing, Sterling Exhibit 19, page 11
[39] Id at page 5.

Imagine how much more less expensive the Sterling/Warsaw Alternative could be if the Companies had taken the same time and effort to sharpen their pencils and conduct an in depth, thoughtful and thorough engineering review of the Sterling/Warsaw Alternative, as the time and effort the Companies took to erroneously show that the LG&E/KU Verona Ky Barge Plan alternative was 4,000% more expensive than the TC Landfill option.

The issue is that the Companies are investor owned businesses operating in what can only be termed a Bizarro World[40], where the most expensive capital option results in the greatest profits to the business owners, and where the business is indifferent to increases in business operating expenses, as there is a guarantee that the businesses' customers will reimburse those expenses dollar for dollar. In order to prevent an investor owned utility from improperly yielding to market and owner demands to adopt the profit recipe of spending more[41], the Commission must insure that the investor owned utility has not conducted a project alternative review where the end result has been predetermined, and then a process is undertaken designed to reach the desired result. The Commission must insure that an investor owned utility has undertaken an objective, thorough and complete analysis that focuses on the best interest of the ratepayers versus the shareholders.

In a normal profit driven business, where the lowest cost option for capital expenditures will increase, not decrease, profits to the business owners, a failure of management to miss projections by 400% on a critical capital project, and the dogged resistance of management to conduct a full and complete present value analysis of an offered alternative for months, would undoubtedly result in heads rolling, especially when management overestimated the present

[40] Bizarro World in the Superman comics in which everything is the opposite of the way it should be. See, also, "The Bizarro Jerry," "Seinfeld," October 3, 1996
[41] *See* footnote 1

value impact of the alternative by 4,000%. If it is obvious that heads would roll because of substantial errors and omissions in projections and in the analysis of future capital investments in a conventional for-profit, investor owned business, it should be prima facie evidence that the process undertaken by an investor owned and regulated utility, resulting in the same errors and omissions, was flawed.

C. The Companies method of projecting the capacity requirements of the TC Landfill is incorrect.

No input is more fundamental or critical to an alternatives analysis involving a CCR landfill than the total capacity requirement on which to calculate the comparative cost of the landfill and its alternatives.

The Companies have repeatedly stated that a capacity analysis of the TC Landfill must assume a maximum capacity of 910,000 CY per year (33.4 MCY over the life of the landfill).[42] However, this requirement of 910,000 CY of capacity is illogical as it assumes that for the next 37 years, there would be little or no construction activity in the economy – (the current level of beneficial use would be zero in every year), yet electric demand for the next 37 years would require maximum fuel burn.

In addressing the issues of the proper analysis method for reviewing the net capacity requirements of the TC Landfill, in a letter dated April 25, 2012, the EPA concluded that the Companies' Alternatives Analysis was improperly overstating the required capacity of the landfill:

> The EPA believes it is inconsistent with the intent of the Guidelines to discount potentially practicable alternatives based, at least in part, on the inability of those alternatives to provide a storage volume that ignores the already demonstrated volumetric reductions in CCR as a result of adaptive reuse. Even further reductions in the necessity storage capacity are likely as evidenced by LG&E's laudable

[42] See e.g. Voyles Aug. 6, 2015 Pre-filed Testimony at 26.

> commitment to facilitate CCR reuse and its stated goals to significantly increase the quantity of material reused.[43]

For reference as to a reasonable assumption as to future beneficial reuse, the following chart details the actual production cubic yards and beneficial reuse cubic yards of CCR between 2010 and 2015 (annualized) at Trimble County[44].

Year	CCR Production	Beneficial Reuse	Net CCR to Landfill
2010	392,835	160,624	232,211
2011	694,091	130,010	564,081
2012	668,536	155,856	512,680
2013	680,809	221,497	459,312
2014	650,056	223,915	426,141
2015*	745,942	208,212	537,730

*Annualized

In May 2015, the Companies conducted a cost analysis that compared the cost of building the TC Landfill versus the cost of retiring the Trimble County coal units and replacing the capacity and energy.[45] The analysis was independent of any consideration of the Sterling option. That "retire or continue" alternative was a thorough and complete PVRR analysis and evaluation of the landfill or retire alternatives under three gas price scenarios with limits on CO_2 emissions consistent with the EPA's 2014 Clean Power Plan proposal.[46]

For purposes of determining the TC Landfill capacity requirement in the May 2015 retire or continue comparative analysis, the Companies used the 2015 Generation Plan[47] and assumed that the current 265,000 tons per year of beneficial reuse would continue.[48] Under these assumptions, the total capacity requirement of the TC Landfill would be 21.5 MCY over its

[43] *See* Exhibit L to Sterling Complaint, Letter from James D. Giattina, Director, Water Protection Division, U.S. Environmental Protection Agency, to Colonel Luke T. Leonard, District Engineer, Louisville District Corps of Engineers (April 25, 2012) at 2-3, enclosure Table 2 .
[44] Compiled as Summary of Companies Response to Sterling First Data Request, Questions 3 and 4
[45] See the Companies Application, Exhibit 5
[46] Id.
[47] Id at 8
[48] Id at 11.

life[49], which is approximately one-third (1/3rd) less than the 33.4 MCY the Companies are demanding as the data input for a comparative analysis of the TC Landfill alternative to the Sterling alternative. This assumption is borne out by the historic net annual CCR production as detailed in the table above.

If the Company is going to do a comparative analysis of alternatives to the TC Landfill, the data inputs used to calculate the comparative cost must be the same. It simply makes no sense for the Companies to do a comparative cost analysis of the Trimble Landfill versus the alternative of retiring Trimble's coal units based upon a Landfill capacity requirement of 21.4 MCY, and then do a comparative cost analysis of the Trimble Landfill versus the Sterling alternative based upon a Landfill capacity requirement of 33.4 MCY. The decision to pursue one alternative versus another must be based upon an apples-to-apples comparison of the alternatives; otherwise, the alternatives analytical process completely falls apart.

D. The Companies have exaggerated redundancy and feasibility concerns as methods of eliminating any alternative other than building the TC Landfill.

The Companies have claimed that the Sterling alternative is not feasible because of potential interruptions to the availability of the Sterling mine could interrupt the production of electricity at Trimble Generating Station.[50] However, there are several options to avoid interruptions that would cause a potential backup of CCR at Trimble in excess of the onsite capacity (empty barges and silos).

The first option is the new gypsum pond at Trimble County, which the Companies designed and constructed with a liner to meet the new CCR regulations.[51] Sterling would truck, and compact

[49] See Table 2 above. "Base Generation" and "2015 Plan" are the same. See footnote to Table 2
[50] See generally Voyles Aug. 6, 2015 Pre-filed Testimony at 24.
[51] Companies Response to Sterling First Data Request, Question 11

if necessary, CCR from the truck loading station in the CCR treatment facility to the gypsum pond. Gypsum from the gypsum pond could be periodically excavated and moved to Sterling by barge or truck if the gypsum pond begins approaching capacity.

The second option would be for Sterling to truck or barge the CCR from Trimble County to Ghent and place it in the Ghent landfill. Sterling would reimburse the Companies the cost of compacting the CCR in the Ghent landfill. This is also the same alternative identified by the Companies in the event that the CWA 404 permit approval from the USACE for the Trimble Landfill is rejected or delayed[52]. In the event of a catastrophic geologic event that somehow permanently shut down Sterling's mine and did not affect Trimble County, Sterling would agree to truck or barge gypsum from Trimble County to Ghent until Trimble County could build a new on-site landfill, and would reimburse Ghent for the cost of compacting the CCR in the Ghent Landfill.

According to the Companies, the Ghent CCR landfill has the capacity to manage longer interruptions. [53] KU designed Ghent's CCR Landfill to handle 46.1 MCY of CCR over 25 years (1,844,000 CY per year)[54]. However, since 2010 Ghents CCR capacity needs, based on annual CCR cubic yard production and beneficial reuse, have been substantially lower than planned capacity needs.[55] The highest annual CCR capacity need to date has been only 1.16 MCY, as the Table below indicates. As a result, the Companies will have substantial available capacity to manage any potential interruption in the ability of Sterling to receive Trimble County's net CCR production:

[52] Companies Response to Staff First Data Request, Question 1.
[53] Companies Response to Staff Second Data Request, Question 12.
[54] Sterling Complaint, Exhibit B, page 3, 11
[55] Companies Response to Sterling First Data Request, Questions 3 and 4

Ghent CCR Production and Benefical Use (Cubic Yards)[56]

Year	CCR Production	Beneficial Reuse	Net CCR to Landfill
2010	1,260,620	179,869	1,080,751
2011	1,268,847	236,935	1,031,912
2012	1,256,043	267,327	988,716
2013	1,411,213	253,867	1,157,346
2014	1,160,598	237,820	925,778
2015*	1,054,600	245,340	809,260

*Annualized

The Companies' plan to deal with CCR at two facilities located 35 miles apart by river, and 28 miles by road, is to construct two massive landfill projects that together cost over $1 Billion. The first phases alone of the Trimble County and Ghent landfill projects are projected to cost $770 million. As history has proven, both landfills were planned and designed based upon an illogical and imprudent assumption - that each generating plant will produce, over their lifetime, the maximum amount of CCR possible, with no beneficial reuse. Indeed, the Companies' data shows that actual CCR capacity requirements, after beneficial reuse, at both facilities, are substantially less than assumed maximum capacity. In addition, information provided by the Companies indicates that beneficial reuse of CCR is expect to grow by 48% over the next 20 years[57].

The result is two plants, close in proximity, that have planned landfill infrastructure well in excess of each plants' actual historical needs, and well in excess of a reasoned and prudent assumption of future needs. Illogical, imprudent and unreasonable assumptions of maximum CCR generation and no beneficial use will unnecessarily cost ratepayers millions of dollars.

The Companies have the opportunity to reduce substantially ECR surcharges by utilizing Sterling Ventures' proposal to beneficially reuse Trimble's County's CCR in Sterling's mine. If access to the mine is temporarily unavailable, Trimble has the ability to place CCR in the Ghent Landfill. The opportunity to utilize the combined CCR capacity of Sterling's limestone mine,

[56] Compiled as Summary of Companies Response to Sterling First Data Request, Questions 3 and 4
[57] See Companies' response to Sterling First Data Request; Question 1-21 at page 9 of 123.

and the available capacity in Ghent's new CCR landfill, if needed, results in the proposed TC Trimble Landfill not serving the public convenience, in addition to being unnecessary, wasteful, duplicative, unjust, unreasonable, and improper.

In an attempt to prevent a meaningful, thorough, and complete analysis of an alternative to the TC Landfill, the Companies have created a "Catch-22" with respect to the comparative analysis of the Sterling/Warsaw Alternative to the TC Landfill. In a nutshell the Catch-22 is this: the Companies have determined that based on their own "conceptual" barge plan, and issues their barge plan raised, that barging CCR to Sterling for beneficial use is not financially or technically feasible. And because the Companies refuse to meet with Sterling in order to have a thorough and complete review and analysis of issues the Companies' barge plan has raised, and give Sterling the opportunity to prepare a detailed proposal and plan completely addressing cost, capacity and other issues, those issues can't be resolved, and the option of using Sterling's mine is therefore not feasible.

E. Sterling's proposed use of Trimble County's CCR meets the requirements for beneficial use under the new Coal Combustion Residuals regulations.

Sterling is planning to use Trimble County's CCR in its underground mine to build a long-term mine ventilation system based upon filling air voids in the mined out areas of the mine to efficiently direct air, rather than a ventilation system based on using mined rock, concrete or other products, combined with vent tubing, to direct air in the mine.

Kentucky has had in place for many years a permit requirement and permitting process that must be followed before CCR can be beneficially used in a production or construction process. 401 KAR 45:060 and 070 are the applicable governing regulations (despite slight

nomenclature differences identifying its applicability to “coal combustion by-products” rather than “coal combustion residuals” and “beneficial reuse” instead of “beneficial use”).

As shown in the following analysis of the new regulations, the proposed use of CCR in the underground mine meets the conditions to qualify as beneficial use outlined in the new CCR regulations (40 CFR §257.53.)

(1) The CCR must provide a functional benefit.

Eliminating air voids in the mine provides the functional benefit of effectively and efficiently directing air to working areas of the mine.

(2) The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices, such as extraction.

The CCR substitutes for concrete, steel and other materials used to construct air stoppings in the mine, as well as substantially reducing the amount of electricity required to run ventilation fans to move air in the mine, thereby reducing the environmental consequences of additional electric generation.

(3) The use of the CCR must meet relevant product specifications, regulatory standards or design standards when available, and when such standards are not available, the CCR is not used in excess quantities.

There are no product specifications relevant to Sterling’s beneficial use of CCR. A ventilation plan based upon completely filling air voids with CCR is similar to a plan to make ½ wallboard with CCR – there is only so much space between the two pieces of paper that make up the ½ wallboard, and it is impossible to use more than will fit between the two pieces of paper. It is therefore impossible to use more CCR for wallboard in excess quantities. Sterling’s requirement to maintain an active mining operation prevents excess quantities of CCR beyond

what is necessary to fill voids in mined out, abandoned areas of the mine. Like wallboard, Sterling's plan is to completely fill the space between the outside barriers – however, instead of the paper boundaries in wallboard, the boundaries are the rock walls that make up the ceiling, floor and walls of the air voids in the mine. It is therefore impossible to use more CCR than is necessary to fill air voids in excess quantities.

The excess quantities restriction here is designed to provide a standard for using CCR when the planned use has no physical boundaries, such as using CCR in agriculture as a soil amendment.[58] If using 1 foot of CCR as a soil amendment were all that was necessary to achieve the desired soil characteristics, the new regulations would prohibit using 2 feet of CCR, as the extra foot is unnecessary and would be considered excessive.

(4) When unencapsulated use of CCR involving placement on the land of 12,400 tons or more in non-roadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.

Given the geology of the mine and the strata between the surface and the mining levels, once the CCR is placed in the mine, there will be no environmental contact possible with groundwater, surface water, soil or air.

On October 12, 2015, the Kentucky Division of Waste Management issued Sterling a Registered Permit by Rule based upon Sterling's request to beneficially use CCR from the

[58] See generally discussion of CCR uses in agriculture in CCR Regulations. *Federal Register*/Vol. 80, No. 74 / Friday, April 17, 2015 / Rules and Regulations.

Trimble County Generating Station for ventilation purposes.[59] Among the obligations of the Cabinet in review and issuance of a permit under KRS Chapter 224 and the Regulations at 401 KAR Chapter 45, which governs beneficial use of CCR, is that "[p]ermits shall be issued in a manner and shall contain conditions consistent with requirements of applicable state and federal laws." [60] Federal Law includes the Resource Conservation and Recovery Act of 1976 (RCRA), which is the statutory basis of the new CCR Regulations.

With respect to the first beneficial use criteria above - functional benefit - the preamble of the new CCR regulations as published in the Federal Register provides that: "To the extent that a state regulatory program has determined that a particular use provides a functional benefit, this may serve as evidence that this criteria has been met."[61].

In addition, with respect to the second beneficial reuse criteria above – substitute for a virgin material - the preamble also notes that: "Here as well, potential users of CCR may choose to rely on a state determination to provide evidence that this criterion has been met."[62]

The obvious intent of the EPA was to have the applicable state regulatory agencies be a critical component of the determination of qualifying beneficial reuse.

Courts will defer to the state drafting the terms of an environmental permit in resolving questions of ambiguity. *Natural Res. Def. Council, Inc. v. Texaco Ref. & Mktg., Inc.*, 20 F. Supp. 2d 700, 709 (D. Del. 1998) ("In construing a permit provision, the Court should defer to the interpretation of the agency charged with enforcement of the terms."); *see also Cal. Pub. Interest Research Grp. v. Shell Oil Co.*, 840 F. Supp. 712, 716 (N.D. Cal. 1993) (An NPDES permit "is a legally enforceable rule drafted by a regulatory agency. As such, it is akin to any agency

[59] Attached Exhibit A
[60] 401 KAR 45:030. Obtaining a special waste site or facility permit, Section 3.
[61] *Id.* at 21349.
[62] *Id.*

regulation or rule.") *and California Pub. Interest Research Group v. Shell Oil Co., 840 F. Supp. 712, 716 (N.D. Cal.1993)* ("In construing NPDES permits, courts often defer to the agency that drafted the permit, consistent with established rules of statutory construction that give deference to agency interpretations where they are reasonable.").

The above cases deal with permits issued by states with authorization under the National Pollutant Discharge Elimination System (NPDES) permit program, which controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The NPDES program's purpose, authorization and enforcement structure, including the right to bring a citizens suit, is substantially similar to that created by the EPA under the new CCR regulations.

Given that the new CCR regulations specifically look to the states issuing beneficial use permits as evidence of compliance with the beneficial use requirements, and the courts defer to a state's technical expertise and interpretations of permit conditions, Sterling is confident that it can beneficially use CCR in its underground mine under the terms and conditions of the new CCR Regulations.

F. The Companies have presented skewed social impacts of the Sterling/Warsaw Alternative in order to have the Commission make a decision on the comparative social impact of the Sterling/Warsaw Alternative as compared to the social impact of the TC Landfill.

The Companies have argued that impacts of trucking CCR from the barge site Sterling has proposed at the edge of Warsaw would have the negative impact of putting excessive truck traffic on US 42 between the edge of Warsaw and the Sterling Mine entrance.

It should first be noted that when exiting the proposed site, trucks carrying CCR will turn left towards the mine, away from the Warsaw's schools, businesses and residential areas (to pass in front of Warsaw schools, business and residential areas in Warsaw, traffic would need to turn right out of the facility). US 42 between the proposed barrage site and the mine is rural Gallatin county.

The Companies have implied that the social cost of having an additional 10 to 12 trucks[63] making a 45 minute round trip on a rural section of US 42 between Sterling's mine and a barge site on the edge of Warsaw are unacceptaable. Imagine that the Warsaw site was converted into a WalMart, Krogers or community shopping center. 10-12 additional trucks on the road going to the Warsaw location would be a rounding error compared to the traffic that would be generated by a big box retail establishment.

If the Companies believe that the Commission should start making CPCN decisions based upon a review of the least comparative social cost of alternatives in addition to a review of the least comparative PVRR cost of alternatives, the implied social costs of an additional 10 -12 trucks on the road for potentially the next 37 years must be compared to the social cost of adversely impacting, and permanently and forever destroying a substantial portion of 840 acres of land, 87,254 linear feet of a Kentucky stream system, 2.6 acres of wetlands and .05 acres of water ponds, all immediately adjacent to the Ohio River.[64]

The EPA characterized the stream system effected by the landfill as follows:

> The proposed LG&E project would have direct impacts, as stated above, on a watershed drained by an unnamed tributary to Com Creek that has been documented as having high water quality and a diverse biological community, as evidenced by an "excellent" Macroinvertebrate Bioassessment Index (MBI) rating. An additional

[63] *See* Gardner Pre-filed Testimony, Aug 6, 2015 at 14.
[64] *See* Letter from Heather McTeer Toney, Regional Administrator, U.S. Environmental Protection Agency, to Colonel Christopher G. Beck, District Engineer, Louisville District Corps of Engineers (August 7, 2014), Exhibit O of Sterling Complaint.

> indication of the quality of this stream system can be found by comparing the system that is proposed to be impacted to a nearby stream. Sampling conducted by LG&E's consultants in 2007, documented that conditions in the streams proposed to be impacted by construction and operation of the CCR landfill were in fact better (i.e. higher scoring on the MBI) than conditions documented in a stream lying immediately to the north. That northern stream is designated by the Commonwealth of Kentucky as an Exceptional Water of the Commonwealth, an Outstanding State Resource Water and is also included in the Commonwealth's biological reference reach network. The Kentucky Division of Water resampled the streams proposed to be impacted in March 2013 and again found that the stream's biological community ranked as "excellent" according to the MBI.[65]

Adversely impacting a stream that has a higher quality rating than a stream already designated by the Commonwealth of Kentucky as an Exceptional Water of the Commonwealth, an Outstanding State Resource Water must also be compared with the alternative positive social impacts of essentially placing the Trimble CCR in an underground vault, where the CCR will have no contact with surface water, no contact with ground water, no contact with soils, no fugitive dust emissions and no impact on any stream or land.[66]

Permanent and forever is a long time when it comes to a pristine watershed immediately adjacent to the Ohio River. Even if the Commission decides that it should start making CPCN decisions based upon a review of the least comparative social costss of alternatives, in addition to a review of the least comparative PVRR cost of alternatives, the comparative adverse social costs of the proposed TC Landfill are clearly greater the net social impacts of the Sterling/Warsaw Alternative.

IV. CONCLUSION

The Commission has the authority to review the Companies' previously approved Certificates of Public Convenience and Necessity to construct a multi-phase landfill for coal

[65] *Id.*
[66] *See* Attachment 6 to Sterling Original Beneficial Re-sue Permit Application to KDWM, Sterling's response to the Companies First Data Request, Question 5

combustion residuals (CCR) and related facilities, including CCR treatment and transport facilities at the Trimble County Generating Station ("Trimble County Landfill') and to recover the cost of the first phase of the landfill through the Companies' environmental-cost recovery-recovery ("ECR") mechanisms.

However, as evidenced in this proceeding, the construction of the landfill is no longer needed given the functionally and environmentally better Sterling Ventures limestone mine for the storage of the CCRs. Just as importantly, the PVRR analysis which the Companies themselves have at long last been forced to produce via this proceeding definitively demonstrates that the Sterling proposal is the most reasonable and cost effective method - at least for the ratepayers who must bear the costs.

In addition, it is also clear that no meaningful and comprehensive review of the Sterling/Warsaw Alternative to the TC Landfill has occurred, and the process the Companies employed in the comparative analysis of the Sterling/Warsaw Alternative was flawed. For this reason, as well as the other reasons set forth above, Sterling respectfully request that the Commission deny a CPCN to the Companies for the TC Landfill or for the transportation portion of the CCRT used to transport CCR to the TC Landfill from the TC CCRT. (Sterling is not taking any position or making any request with respect to the Commission should granting or denying a CPCN for the treatment portion of the TC CCRT.)

Respectfully submitted,

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Dated: October 16, 2015

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

PERMIT

Facility:

Sterling Ventures LLC
100 Sierra Dr
Verona, KY 41092

Permittee:

Sterling Materials
376 South Broadway
Lexington, KY 40508

Agency Interest:

Sterling Ventures LLC
100 Sierra Dr
Verona, KY 41092

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

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

Agency Interest ID #: **1461**

Solid Waste Permit #: **SW00800023**

County: **Gallatin**

Permitted Activities:

Subject Item	Activity	Type	Status
ACTV001	Beneficial Reuse-Special Waste-RPBR/00800023	Registered Permit-by-Rule	Active

Permit Number: SW00800023

Agency Interest ID: 1461

PERMIT

First Operational Permit Effective Date: 11/19/2010

Permit Effective Date: 10/12/2015

Permit Expiration Date: Life of facility

Permit issued: 10/12/2015

Kenneth Melton for

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

Permit Conditions:

Subject Items

ACTV0001 - Beneficial Reuse-Special Waste-RPBR

Standard Requirements:

1. General: The owner or operator of a special waste facility shall comply with KRS Chapter 224 and 401 KAR Chapters 30, 40 and 45 for the operation of special waste facilities. [KRS 224.50-760]

2. General: For operation of the special waste beneficial reuse that is not otherwise specified in 401 KAR 45:060, the owner or operator shall comply with KRS Chapter 224.50-760, 401 KAR 45:070 and the approved permit application(s). [401 KAR 45:070]

Variances, Alternate Specifications and Special Conditions:

1. Operation: The owner or operator shall comply with the Environmental Performance Standards of 401 KAR 30:031. [401 KAR 30:031]

2. Operation: The owner or operator is approved to beneficially re-use flue gas desulfurization (FGD) gypsum produced by the KU Ghent Generating Station, and FGD gypsum, fly ash, bottom ash and mill rejects (pyrites) produced by the KU/LG&E Trimble County Generating Station. [401 KAR 45:070 Section 3]

3. Operation: The owner or operator shall submit a revised registration prior to beneficially reusing other sources or types of wastes, changing the method of processing waste, adding new processes, changing the operator, or changing ownership. [401 KAR 45:070 Section 4]

4. Operation: The owner or operator is approved to beneficially reuse, per calendar year, up to: FGD gypsum: 1,402,000 (one million four hundred and two thousand) tons; Fly Ash: 386,000 (three hundred eighty-six thousand) tons; Bottom Ash: 74,000 (seventy-four thousand) tons; Mill Rejects: 12,000 (twelve thousand) tons. [401 KAR 45:070 Section 3]

5. Operation: The owner or operator shall take necessary precautions to ensure that no water, except that necessary for dust suppression or otherwise incidental to the mining operation, shall enter beneficial re-use areas. In the event of water entering the mine, the owner or operator shall use best available means to promptly remove any standing water encroaching upon the waste materials. [401 KAR 45:140 Section 2]

6. Operation: The owner or operator shall ensure that waste materials are stored or placed only in areas with no standing water. [401 KAR 45:140 Section 2]

County Sources - The owner or operator may accept waste as authorized by the cabinet pursuant to KRS 224 and/or 401 KAR Chapter 47 from the following counties:

Kentucky: Carroll, Gallatin, Trimble

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

1. 11-19-2010 - ARP20100001 - Registered Permit-by-Rule Beneficial Reuse
2. 10-12-2015 - ARP20150001 - Revised Registered Permit-by-Rule Beneficial Reuse