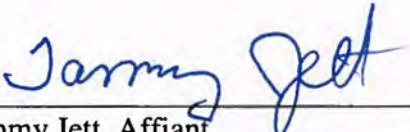


VERIFICATION

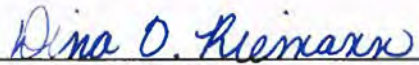
STATE OF OHIO)
) SS:
COUNTY OF HAMILTON)

The undersigned, Tammy Jett, Principal Environmental Specialist, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing data requests and that the answers contained therein are true and correct to the best of her knowledge, information and belief.



Tammy Jett, Affiant

Subscribed and sworn to before me by Tammy Jett on this 22nd day of August, 2018.



NOTARY PUBLIC

My Commission Expires:

DINA O. RIEMANN, Attorney at Law
Notary Public, State of Ohio
My Commission Has No Expiration Date.
Section 147.03

KyPSC Case No. 2018-00156
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Duke Energy Kentucky
Case No. 2018-00156
Attorney General's First Set Data Requests
Date Received: August 10, 2018

AG-DR-01-001

REQUEST:

DEK's application states that the projected price for West Landfill Cell 2 is \$23.324 M, and states O&M costs of Cell 2 are projected to be similar to O&M costs for West Landfill Cell 1. Based on the July 24, 2018 announcement¹ of the U.S. Environmental Protection Agency that it will be relaxing requirements of the Coal Combustion Residual (CCR) rule, to what extent will DEK reduce its cost projections for: (a) construction and (b) ongoing O&M once the project is completed? Explain in complete detail.

RESPONSE:

Based on the July 24, 2018 announcement¹ of the U.S. Environmental Protection Agency that it will be relaxing requirements for the Coal Combustion Residual (CCR) rule, Duke Energy Kentucky is not projecting any cost reductions to its cost projections for: (a) construction and (b) ongoing O&M once the project is completed. The article cited in footnote 1 for AG Initial Data Request 1 is referring to the CCR rule Phase 1, Part 1 revision published in the Federal Register on July 30, 2018. The article incorrectly characterizes many of the "far reaching" benefits of the rule revision, and, in particular, has overestimated the effects of this rule on East Bend. There are multiple reasons for that. To explain the reasons fully, it is helpful to understand that the CCR rule revision, addresses three main areas:

¹ Article regarding the EPA's announcement accessible at the following link:
https://www.washingtonpost.com/national/health-science/epa-eases-rules-on-how-coal-ash-waste-is-stored-across-the-us/2018/07/17/740e4b9a-89d3-11e8-85ae-511bc1146b0b_story.html?utm_term=.4bc8c9373eda

- participating State Director authorizations to certify reports in lieu of a PE and also suspend groundwater monitoring if a "no migration" demonstration can be made;
- a revision of four groundwater protection standards to include a regional screening level for cobalt, lead, lithium and molybdenum; and,
- extension of the "cease receipt and begin closure date" from April 2019 to October 2020 for CCR unit groundwater monitoring networks which exceed an Appendix IV groundwater protection standard or fail to demonstrate an appropriate separation of the CCR unit from the aquifer.

First, the parts of the rule which authorize the participating State Director to certify reports in lieu of a PE and also suspend groundwater monitoring if a "no migration" demonstration can be made are of no benefit to East Bend at this time. There are a couple of reasons for this. First, a *Participating State* means a state with a state program for control of CCR that has been approved pursuant to RCRA section 4005(d). Kentucky does not have a state CCR rule program approved by U.S. EPA. While Kentucky is in the process of establishing such a program, it is anticipated that the approval needed to obtain "participating state" status will take a long time. Assuming Kentucky is successful at achieving approval to run the CCR rule program, it is unlikely that the approval will come within the timeframe in which construction of the West Landfill Cell 2 will need to be completed. In addition, regardless of whether Kentucky achieves participating state status, they are unlikely to certify reports in lieu of a PE. Whether Kentucky is in a position of being authorized to certify reports in lieu of a PE or not, there is no reason to believe the State would relax any requirements which would

reduce construction or O&M costs related to the West Landfill Cell 2. Finally, regarding newly established State Director authorizations, the State Director will be unable to suspend groundwater monitoring related to a "no migration" demonstration made even though the rule revision allows it because no successful demonstration can be made at East Bend to meet this requirement. In fact, it will be difficult to make a successful demonstration across the industry. Only CCR units in locations such as Arizona may have success demonstrating no migration due to the onerous requirements of the rule regarding this demonstration.

Second, the revision of four groundwater protection standards to include regional screening levels (RSLs) for cobalt, lead, lithium and molybdenum, will have no discernable effect on the cost projections for: (a) construction and (b) ongoing O&M once the project is completed. The addition of the RSLs are anticipated to provide no change whatsoever regarding construction or O&M because only minor effects are anticipated to East Bend's ash handling in relation to this part of the rule revision.

Finally, the extension of the "cease receipt and begin closure" date from April 2019 to October 2020 for ash impoundments which have exceedances of an Appendix IV groundwater protection standard or fail to demonstrate an appropriate separation of the CCR unit from the aquifer are not anticipated to impact the construction costs or O&M for the West Landfill. This part of the rule only applies to ash impoundments. While the closure date for the ash impoundment at East Bend might be extended by this particular section of the rule, the April 2019 "cease receipt and begin closure" date is still in effect for several parts of the rule. The Washington Post article incorrectly stated several parts

of the rule allowed the extension of the April 2019 closure date. That closure date extension is limited to only groundwater-related issues.

In summary, Duke Energy expects no reduction in construction or O&M costs related to CCR rule revision.

PERSON RESPONSIBLE: Tammy Jett

Duke Energy Kentucky
Case No. 2018-00156
Attorney General's First Set Data Requests
Date Received: August 10, 2018

AG-DR-01-002

REQUEST:

Does DEK believe that based on the EPA announcement described above, it will need to re-evaluate costs to comply with the EPA's Steam Electric Effluent Limitation Guidelines ("ELG Rule"), and/or any other relevant federal or state regulation? Explain in complete detail why or why not.

RESPONSE:

Duke Energy Kentucky does not believe that, based on the EPA announcement described in AG-DR-01-001, it will need to re-evaluate costs to comply with the EPA's Steam Electric Effluent Limitation Guidelines ("ELG Rule"), and/or any other relevant federal or state regulation. First, the CCR rule revision published in the Federal Register on July 30, 2018 does not provide as much relief to East Bend as has been represented in the media and by EPA (see detailed explanation in the answer to AG-DR-01-001). Secondly, Duke Energy still anticipates that the EPA will require specific project drivers, such as no discharge of bottom ash water when they issue ELG rule revisions. Actions need to continue to meet that need. Third, while deadlines for groundwater-related forced "cease receipt and begin closure" actions have been extended and may marry up better with extended ELG Rule deadlines, deadlines for the other location restrictions (40 CFR 257.61-64) have not been altered. It should be pointed out that the limited extension of the "cease receipt begin closure" dates also do not address the need for corrective action

due to any exceedances of appendix IV parameters. EPA did not change the timeline for entering or executing corrective action in such cases. In fact, 257.97 (b)(3) requires that a groundwater remedy "control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of constituents in appendix IV ...into the environment". This means, upon the discovery of an appendix IV exceedance, phasing out the older East Landfill and excavating the ash impoundment to control potential of sources of groundwater contamination will still be required on the same schedule as already determined before this rule revision was published. This in turn will require the same expenditures on the same timeframe as outlined in the Duke Energy West Landfill Cell 2 CPCN filing. In addition, please see Attachment AG-DR-01-002 for the concurrence from the State, Division of Waste Management, that closure of the ash impoundment would be an appropriate corrective action to address state groundwater issues has not changed due to the CCR Rule revision. This concurrence from the State was previously provided to both the AG and the Commission attached as Exhibit 6 in the Company's Application in Case No. 2016-00398.

PERSON RESPONSIBLE: Tammy Jett



MATTHEW G. BEVIN
GOVERNOR

CHARLES G. SNAVELY
SECRETARY

**ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION**

AARON B. KEATLEY
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

August 10, 2016

Mr. Gary Cook, Station Manager
Duke Energy Corporation
139 E. 4th Street, Room EM740
Cincinnati, Ohio 45202

Certified Mail No. 7015 0640 0005 6317 4913

RE: Closure Notification and Concurrence Request for Coal Combustion Residuals
Surface Impoundment - East Bend Station
Agency Interest No. 176
Activity I.D. No. APE20160010
Boone County

Dear Mr. Cook:

The Kentucky Division of Waste Management (DWM), Solid Waste Branch has reviewed your correspondence on August 3, 2016 regarding the clean closure of the East Bend Station CCR surface impoundment, referenced as ACTV008. DWM concurs with the procedures specified in your letter.

DWM has the following comments:

1. A permit modification (in this case, a revised registration) is not required from DWM to remove coal combustion residuals from the surface impoundment.
2. Duke Energy should notify DWM of the progress in order to allow DWM to perform visual inspections during and after the process.
3. After complete removal of the CCR material and incidental comingled material from the ash pond, Duke Energy shall submit a Construction Progress Report (CPR) certified by a Professional Engineer for all removal activities to DWM for review.
4. The facility shall comply with their KPDES permit to control surface water impacts during construction activities.

Mr. Gary Cook
August 10, 2016
Page 2 of 2

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APE20160010

5. Upon acceptance of the CPR, DWM will terminate the ACTV008 permitted activity associated with Solid Waste Permit Number 008-00006.
6. Following termination, Duke Energy may line the basin and repurpose it as a water retention basin without regulation by DWM.
7. DWM considers clean closure of the surface impoundment to be a potentially effective corrective action for groundwater impacts related to special waste (CCR) management and disposal at East Bend Station. However, groundwater monitoring, assessment, and if necessary, additional corrective action may be required to comply with the requirements of 401 KAR 45:160 and 401 KAR 30:031.

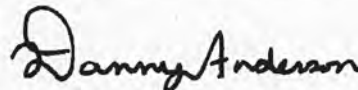
Additionally, please be advised that on June 21, 2016, the Solid Waste Branch was relocated to the following address:

Division of Waste Management
Solid Waste Branch
300 Sower Blvd., Second Floor
Frankfort, Kentucky 40601

Please send all future correspondence, applications, reports, etc. to the new address. The general phone number (502) 564-6716 will remain the same, but each individual staff member has a unique phone number.

Should you have any questions please contact me at (502) 782-6305.

Sincerely, _____



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

DA/LTB/rth

Duke Energy Kentucky
Case No. 2018-00156
Attorney General's First Set Data Requests
Date Received: August 10, 2018

AG-DR-01-003

REQUEST:

Based upon the EPA's announcement described above, will DEK still have to install groundwater monitoring technology at its West Landfill Cell 2, to the same extent it had originally planned? Explain in complete detail why or why not.

RESPONSE:

Based upon the EPA's announcement described in the AG-DR-01-001 question, Duke Energy Kentucky will still have to install groundwater monitoring technology at its West Landfill Cell 2, to the same extent it had originally planned. The reason for this is that there is nothing in the CCR Phase 1, Part 1 rule revision that was published in the Federal Register on July 30, 2018 which would allow for the alteration of any of the groundwater monitoring requirements for the West Landfill. The groundwater monitoring system which was installed must remain in place. All the sampling and groundwater monitoring system requirements remain the same. While the Washington Post article which was referred to in AG question 1 states, "For example, it would allow a state to suspend groundwater monitoring if it determines that there are no leaks, contamination or migration of contaminants that can be detected.", this will not apply to East Bend. According to the revised rule, Section 257.90 (g), a very specific demonstration must be made that there is no potential for migration of any appendix III or appendix IV constituents in order for the state to suspend the groundwater monitoring requirements.

This sort of demonstration can only be made in a location such as Arizona. It is a difficult demonstration for most of the industry to make and is not exclusive to East Bend. In addition, as mentioned in the response to question AG-DR-01-001, Kentucky is not a "participating state" at this time. The State Director cannot make the decision to suspend CCR rule-related groundwater monitoring unless the state is a "participating state" and has permitting authority under the CCR rule. It is anticipated Kentucky will pursue permitting authority, but it is unclear by what timeframe that may happen. Regardless, the lack of the ability to make the required demonstration required by the CCR rule will remain.

PERSON RESPONSIBLE: Tammy Jett

Duke Energy Kentucky
Case No. 2018-00156
Attorney General's First Set Data Requests
Date Received: August 10, 2018

AG-DR-01-004

REQUEST:

Based upon the EPA announcement described above, will DEK continue work on the closing of the ash pond located at the East Bend station? Explain in complete detail why or why not.

RESPONSE:

Based upon the EPA announcement described in question AG-DR-01-001, Duke Energy Kentucky will continue work on the closing of the ash pond located at the East Bend station. There are several reasons for this. First and foremost, KDEP, Division of Waste Management, has accepted the closure and excavation of the ash pond at East Bend as an appropriate and acceptable action for groundwater remediation. Please see the concurrence letter provided in Attachment AG-DR-01-002 as further reference to KDEP's position on this matter. Secondly, the July 30, 2018 CCR rule revision only offers limited relief regarding closure of the ash pond. That relief comes in the form of a possible delay in the closure schedule related to groundwater issues, but the rule revision does not provide enough relief on other rule requirements in a way that would allow the cessation of closure altogether. Third, it is still expected that EPA will make an ELG rule revision that includes "no discharge of bottom ash water" in some form or another. Fourth, the dry ash handling system was installed during the spring outage this year, so ash is no longer being sluiced to this pond. It would be a regulatory challenge to leave the remaining ash

and not close a pond that is no longer used or needed for the sluicing of ash. Seventy percent of the ash remaining in the basin has already been excavated. The pond would have to be permitted as a landfill in order to leave ash within it at the time of closure according to discussions with KDEP, Division of Waste Management. Even if closure-in-place of the ash which is left in the pond were feasible and prudent, it would be onerous to permit and manage the former ash pond as a landfill. In addition, the management of the ash impoundment as a landfill, with a cap over the remaining ash, will guarantee, at a minimum, expenditures for 30 years post-closure groundwater monitoring under the CCR rule. Finally, the current ash impoundment is in the process of being converted to a new waste water treatment pond that will be compliant with the ELG rule and meet the goal of removing the ash impoundment from the category of being a CCR unit at time at which it is shown to meet the groundwater protection standards. This in turn will avoid post-closure expenditures, such as maintaining the cap vegetation, inspections, and groundwater monitoring for example, that would be incurred if it were to remain a CCR unit. In addition, the conversion of the ash pond to a new wastewater treatment unit was proven to be the most cost effective, environmentally appropriate, and most feasible option for this site to handle wastewater in the future. The conversion project is over halfway finished. To reverse course now would cause Duke Energy Kentucky to have to find another option for a new wastewater treatment pond, incur additional costs, and also cause Duke Energy Kentucky to have incurred costs thus far for the conversion of the current pond that would then not be used for its intended purpose.

PERSON RESPONSIBLE: Tammy Jett

Duke Energy Kentucky
Case No. 2018-00156
Attorney General's First Set Data Requests
Date Received: August 10, 2018

AG-DR-01-005

REQUEST:

Provide all estimates DEK has of any savings in depreciation expense or costs of removal based upon the changes to the CCR Rule, as described above. Explain in complete detail.

RESPONSE:

Please see responses to AG-DR-01-001 through AG-DR-01-004. There are no estimates Duke Energy Kentucky has of any savings in depreciation expense or costs of removal based upon the changes to the CCR Rule, as referred to in AG-DR-01-001. The article cited in footnote 1 for AG Initial Data Request 1 is referring to the CCR rule Phase 1, Part 1 revision published in the Federal Register on July 30, 2018. The article incorrectly characterizes many of the "far reaching" benefits of the rule revision, and, in particular, has overestimated the effects of this rule on East Bend. While the rule may allow appear to "relax" several CCR rule requirements, none of the revisions in the rule change anything which allows for savings as previously explained.

PERSON RESPONSIBLE: Tammy Jett