

**CCR CONCEPTUAL CLOSURE PLAN  
POND 3A  
FORMER STUART STATION  
MANCHESTER, ADAMS COUNTY, OHIO**

**Prepared for:**

**Kingfisher Development LLC  
Rd. 3, Km 19.9  
Canovanas, Puerto Rico, 00739**

**Prepared by:**

**Key Environmental, Inc.  
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**MARCH 2021**

The Former J.M. Stuart Station (Station) is located in Adams County, Ohio on U.S. Route 52, near Manchester, Ohio. Energy production at the Station ceased in May 2018; ownership of the Station was transferred from Applied Energy Services Ohio Generation, Inc. (AES OG) to Kingfisher Development, Inc. (KD) in December, 2019. Since the transfer of ownership, KD has initiated assessment and design activities for closure and decommissioning of the Station. Pond 3A is an ash impoundment at the Station.

In October 2016, Haley and Aldrich (H&A) submitted a conceptual closure plan for Pond 3A on behalf of Dayton Power & Light Company (DP&L) to meet the requirements set forth by §257.102 in the United States Environmental Protection Agency's (USEPA) Final CCR Rule dated April 17, 2015. The Final CCR Rule has been modified by proposed rules and amendments, most recently on August 28, 2020. Due to the ownership transfer of the Station and subsequent closure agreements between the Ohio Environmental Protection Agency (OEPA) and KD, the closure plan submitted in 2016 has been modified. This document was prepared by Key Environmental, Inc. (KEY) on behalf of KD to update and amend the closure plan (Plan) for Pond 3A in accordance with §257.102(b)(3)(i), which states that "the owner or operator may amend the initial or any subsequent written closure plan developed pursuant to paragraph (b)(1) of this section at any time."

This Plan has been developed based upon information provided by H&A and AES OG and the Plan describes the ash impoundment, updated closure plan design, a modified schedule for closure, and steps required to amend the Plan again in the future, if necessary.

***§257.102(b)(1): The owner or operator of a CCR unit must prepare a written closure plan that describes the steps necessary to close the CCR unit at any point during the active life of the CCR unit consistent with recognized and generally accepted good engineering practices. The written closure plan must include, at a minimum, the information specified in paragraphs (b) (1) (i) through (vi) of this section.***

The Station ceased energy production in May of 2018 and many of the impoundments ceased receiving CCR materials. Closure of Pond 3A began in 2018 and is continuing in accordance with the schedule discussed in paragraph §257.102(b)(1)(vi).

The following steps are anticipated for closure of the unit:

1. Obtain Ohio EPA regulatory agency closure design approval.
2. Commence closure in accordance with the Ohio EPA mandated schedule.
3. Complete closure in accordance with the Ohio EPA mandated schedule.
4. Obtain PE certification verifying closure has been completed in accordance with this Plan.

5. Within 30-days of completion of closure of the CCR unit, prepare a notification of closure of a CCR unit and place notification in the facility operating record. The notification of closure must include a PE certification from Step 4.

**§257.102(b)(1)(i): A narrative description of how the CCR unit will be closed in accordance with this section.**

The final closure of Pond 3A will be completed via “closure by removal” in which all CCR materials will be removed from the impoundment. The primary components of closure by removal are:

- Mechanical removal of the CCRs from within Pond 3A;
- Transportation of CCRs from the pond and mechanical placement and compaction of CCRs into Landfill 11;
- Completion of the CCR Removal Confirmation Procedure; and,
- Installation of stormwater management features to control runoff and minimize erosion.

**§257.102(b)(1)(ii): If closure of the CCR unit will be accomplished through removal of CCR from the CCR unit, a description of the procedures to remove the CCR and decontaminate the CCR unit in accordance with paragraph (c) of this section.**

When the Contractor concludes that all CCR materials and soils that were in direct contact with the CCR within the unit have been excavated and removed, the following steps shall be taken to confirm complete CCR removal and formally close the unit:

1. The Contractor has completed the CCR removal activities within the boundary of the unit. The Contractor will obtain aerial images of the unit.
2. The Contractor will have the unit surveyed by a licensed surveyor to obtain current elevations. The elevation survey data will be compared to historic, pre-CCR placement grades as best estimated by the Engineer from design and as-built data from the unit.
3. The Contractor will submit the aerial images and the survey data to the Engineer for review. The Contractor will indicate that the unit is ready for the Final Inspection.
4. The Engineer will review the information provided by the Contractor. The Engineer will determine if there is an acceptable correlation between the post-removal grades and pre-CCR placement grades. The Engineer will develop a test pit plan to demonstrate that the CCR has been removed.
5. The Engineer will conduct the Final Inspection. The Engineer or a representative of the Engineer will thoroughly observe the test pit effort, inspect the unit by visual means, and take photographs to document that all CCR material has been removed.

6. The Engineer will generate a completion report and certify based on the above information that all CCR material was removed from the unit. The completion report will be submitted to the appropriate agencies for their review.
7. Groundwater monitoring will be conducted in accordance with the Ohio EPA and federally approved plans. To formally close the unit via “closure by removal”, groundwater monitoring concentrations cannot exceed the groundwater protection standards established pursuant to §257.95(h) for constituents listed in appendix IV of the Federal CCR Regulations. Once the groundwater protection standards are achieved, a request to terminate groundwater monitoring and formally close the unit will be submitted to the Ohio EPA.
8. Once approved by the Ohio EPA, the groundwater monitoring program will cease and the associated wells will be properly abandoned. A well abandonment report will be submitted to the Ohio EPA.

***§257.102(b)(1)(iii): If closure of the CCR unit will be accomplished by leaving CCR in place, a description of the final cover system, designed in accordance with paragraph (d) of this section, and the methods and procedures to be used to install the final cover. The closure plan must also discuss how the final cover system will achieve the performance standards specified in paragraph (d) of this section.***

Not applicable – the closure of Pond 3A will be completed by “closure by removal.”

***§257.102(b)(1)(iv): An estimate of the maximum inventory ever on-site over the active life of the CCR unit.***

KEY reviewed the previous closure report for Pond 3A produced by H&A which reported that the maximum volume of CCRs ever stored in the unit is estimated to be approximately 2,100,000 CY.

***§257.102(b)(1)(v): An estimate of the largest area of the CCR unit ever requiring a final cover as required by paragraph (d) of this section at any time during the CCR unit’s active life.***

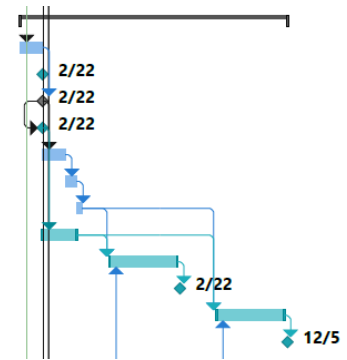
Not applicable – the closure of Pond 3A will be completed by “closure by removal” and a final cover system will not be required.

***§257.102(b)(1)(vi): A schedule for completing all activities necessary to satisfy the closure criteria in this section, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step***

**or phase of CCR unit closure. When preparing the written closure plan, if the owner or operator of a CCR unit estimates that the time required to complete closure will exceed the timeframes specified in paragraph (f) (1) of this section, the written closure plan must include the site specific information, factors and considerations that would support any time extension sought under paragraph (f)(2) of this section.**

An estimated schedule for completing the activities necessary to satisfy the “closure by removal” criteria of the CCR Rule is provided below. The schedule lists the sequential steps that need to be taken to close the impoundment, as dictated by the Directors Final Findings and Orders (DFFO) agreement with the Ohio EPA.

Pond 3A/10 PTI	507 days	Thu 12/24/20	Mon 12/5/22
Pond 3A and Pond 10 PTI Application	60 edays	Thu 12/24/20	Mon 2/22/21
Procedure for Pond Clean Closure Demonstration	0 days	Mon 2/22/21	Mon 2/22/21
Submit to Ohio EPA	0 days	Mon 2/22/21	Mon 2/22/21
Submit Dam Delisting to ODNR	0 days	Mon 2/22/21	Mon 2/22/21
Ohio EPA Review / Comments	60 edays	Mon 2/22/21	Fri 4/23/21
Respondent Response	30 edays	Fri 4/23/21	Sun 5/23/21
Ohio EPA Approval	14 edays	Sun 5/23/21	Sun 6/6/21
ODNR Approval	90 edays	Mon 2/22/21	Sun 5/23/21
Final Closure Pond 3A	180 edays	Wed 8/18/21	Mon 2/14/22
<b>Notification of Pond 3A Closure to OEPA</b>	<b>0 days</b>	<b>Tue 2/22/22</b>	<b>Tue 2/22/22</b>
Final Closure Pond 10	180 edays	Mon 5/30/22	Sat 11/26/22
<b>Notification of Pond 10 Closure to OEPA</b>	<b>0 days</b>	<b>Mon 12/5/22</b>	<b>Mon 12/5/22</b>



Note the Pond 3A closure design and construction activities will be completed concurrently with Pond 10. Per §257.102(e)(3), closure of the impoundment commenced when DP&L ceased sluicing CCR in the impoundment and completed any of the following actions or activities: (i) Taken any steps necessary to implement the written closure plan; (ii) Submitted a completed application for any required state or agency permit or permit modification; or (iii) Taken any steps necessary to comply with state or other agency standards that are a prerequisite, or are otherwise applicable, to initiating or completing the closure of the CCR impoundment.

DP&L ceased production at the Station in May of 2018. A completed application for a Permit to Install (PTI) was submitted to the Ohio EPA in February 2021. Dewatering and removal of CCR from the unit had been ongoing since Station closure.

**§257.102(b)(3)(i): The owner or operator may amend the initial or any subsequent written closure plan developed pursuant to paragraph (b) (1) of this section at any time.**

KD will amend the Plan if there is a change that would substantially affect the Plan or when unanticipated events necessitate a revision of the Plan before closure activities have been finalized.

The Plan will be amended at least 60 days prior to a planned change in the operation of the facility or the CCR impoundment, or no later than 60 days after an unanticipated event requires the need to revise the Plan. If the Plan needs to be revised after closure activities have commenced, the Plan will be revised no later than 30 days following the triggering event. The amended Plan will be placed in the facility operating record as required by the CCR Rule.

A record of amendments to the Plan will be tracked below.

Version	Date	Description of Changes Made
1	12 October 2016	Initial Issue
2	3 March 2021	Revision of closure concept and update of project schedule

### Professional Engineer Certification

**§257.102(b)(4): The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the initial and any amendment of the written closure plan meets the requirements of this section.**

I certify that this written Closure Plan for Pond 3A at the Former Stuart Station meets the USEPA's Final CCR Rule requirements of §257.102(b).

Signed: Mark Lahr

Printed Name: Mark Lahr  
Ohio License No.: 62951  
Title: Senior Project Engineer  
Company: KEY Environmental, Inc.

Professional Engineer's Seal and date:

