



Closure Plan Jeffrey Energy Center Inactive Bottom Ash Pond

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Plan Review/Amendment Log §257.102(b)(3)

Date of Review	Reviewer Name	Amendment Required (YES/NO)	Sections Amended and Reason



CCR Regulatory Requirements

USEPA CCR Criteria 40 CFR 257.102	Jeffrey Energy Center (JEC) Inactive Bottom Ash Pond Closure Plan
<p>§257.102(a) stipulates:</p> <p><i>(a) Closure of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit must be completed either by leaving the CCR in place and installing a final cover system or through removal of the CCR and decontamination of the CCR unit, as described in paragraphs (b) through (j) of this section. Retrofit of a CCR surface impoundment must be completed in accordance with the requirements in paragraph (k) of this section.</i></p>	Section 1.0
<p>§257.102(b)(1) stipulates:</p> <p><i>(b) Written closure plan—(1) Content of the plan. 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.</i></p>	Section 4.0
<p>§257.102(b)(1)(i) stipulates:</p> <p><i>(i) A narrative description of how the CCR unit will be closed in accordance with this section.</i></p>	Section 4.1

USEPA CCR Criteria 40 CFR 257.102	Jeffrey Energy Center (JEC) Inactive Bottom Ash Pond Closure Plan
<p>§257.102(b)(1)(ii) stipulates:</p> <p><i>(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.</i></p>	<p>Section 4.2</p>
<p>§257.102(b)(1)(iv) stipulates:</p> <p><i>(iv) An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit.</i></p>	<p>Section 3.2</p>
<p>§257.102(b)(1)(v) stipulates:</p> <p><i>(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.</i></p>	<p>Section 3.3</p>



USEPA CCR Criteria 40 CFR 257.102	Jeffrey Energy Center (JEC) Inactive Bottom Ash Pond Closure Plan
<p>§257.102(b)(1)(vi) stipulates:</p> <p><i>(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.</i></p>	<p>Section 7.0</p>
<p>§257.102(b)(2)(i) stipulates:</p> <p><i>(2) Timeframes for preparing the initial written closure plan – (i) Existing CCR landfills and existing CCR surface impoundments. No later than October 17, 2016, the owner or operator of the CCR unit must prepare an initial written closure plan consistent with the requirements specified in paragraph (b)(1) of this section.</i></p>	<p>Report submitted prior to October 17, 2016</p>



USEPA CCR Criteria 40 CFR 257.102	Jeffrey Energy Center (JEC) Inactive Bottom Ash Pond Closure Plan
<p>§257.102(b)(2)(iii) stipulates:</p> <p><i>(iii) The owner or operator has completed the written closure plan when the plan, including the certification required by paragraph (b)(4) of this section, has been placed in the facility's operating record as required by §257.105(i)(4).</i></p>	<p>Section 8.0</p>
<p>§257.102(b)(3) stipulates:</p> <p><i>(3) Amendment of a written closure plan.</i></p> <p><i>(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.</i></p> <p><i>(ii) The owner or operator must amend the written closure plan whenever:</i></p> <p><i>(A) There is a change in the operation of the CCR unit that would substantially affect the written closure plan in effect; or</i></p> <p><i>(B) Before or after closure activities have commenced, unanticipated events necessitate a revision of the written closure plan.</i></p> <p><i>(iii) The owner or operator must amend the closure plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the need to revise an existing written closure plan. If a written closure plan is revised after closure activities have commenced for a CCR unit, the owner or operator must amend the current closure plan no later than 30 days following the triggering event.</i></p>	<p>Section 8.1</p>

USEPA CCR Criteria 40 CFR 257.102	Jeffrey Energy Center (JEC) Inactive Bottom Ash Pond Closure Plan
<p><i>§257.102(b)(4) stipulates:</i></p> <p><i>(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></p>	<p>Section 8.2</p>
<p><i>§257.102(c) stipulates:</i></p> <p><i>(c) Closure by removal of CCR. An owner or operator may elect to close a CCR unit by removing and decontaminating all areas affected by releases from the CCR unit. CCR removal and decontamination of the CCR unit are complete when constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standard established pursuant to 257.95(h) for constituents listed in appendix IV to this part.</i></p>	<p>Section 4.2</p>



USEPA CCR Criteria 40 CFR 257.102	Jeffrey Energy Center (JEC) Inactive Bottom Ash Pond Closure Plan
<p>§257.102(e)(1) stipulates:</p> <p><i>(e) Initiation of closure activities. Except as provided for in paragraph (e)(4) of this section and §257.103, the owner or operator of a CCR unit must commence closure of the CCR unit no later than the applicable timeframes specified in either paragraph (e)(1) or (2) of this section. (1) The owner or operator must commence closure of the CCR unit no later than 30 days after the date on which the CCR unit either:</i></p> <p><i>(i) Receives the known final receipt of waste, either CCR or any non-CCR waste stream; or</i></p> <p><i>(ii) Removes the known final volume of CCR from the CCR unit for the purpose of beneficial use of CCR.</i></p>	<p>Section 8.3</p>
<p>§257.102(e)(3) stipulates:</p> <p><i>(3) For purposes of this subpart, closure of the CCR unit has commenced if the owner or operator has ceased placing waste and completes any of the following actions or activities:</i></p> <p><i>(i) Taken any steps necessary to implement the written closure plan required by paragraph (b) of this section;</i></p> <p><i>(ii) Submitted a completed application for any required state or agency permit or permit modification; or</i></p> <p><i>(iii) Taken any steps necessary to comply with any state or other agency standards that are prerequisite, or are otherwise applicable, to initiating or completing the closure of a CCR unit.</i></p>	<p>Section 7.0</p>



USEPA CCR Criteria 40 CFR 257.102	Jeffrey Energy Center (JEC) Inactive Bottom Ash Pond Closure Plan
<p>§257.102(f)(1) stipulates:</p> <p><i>(f) Completion of closure activities. (1) Except as provided for in paragraph (f)(2) of this section, the owner or operator must complete closure of the CCR unit:</i></p> <p><i>(i) For existing and new CCR landfills and any lateral expansion of a CCR landfill, within six months of commencing closure activities.</i></p> <p><i>(ii) For existing and new CCR surface impoundments and any lateral expansion of a CCR surface impoundment, within five years of commencing closure activities.</i></p>	<p>Section 7.0</p>



USEPA CCR Criteria 40 CFR 257.102	Jeffrey Energy Center (JEC) Inactive Bottom Ash Pond Closure Plan
<p>§257.102(f)(2)(i) stipulates:</p> <p><i>(2)(i) Extensions of closure timeframes. The timeframes for completing closure of a CCR unit specified under paragraphs (f)(1) of this section may be extended if the owner or operator can demonstrate that it was not feasible to complete closure of the CCR unit within the required timeframes due to factors beyond the facility's control. If the owner or operator is seeking a time extension beyond the time specified in the written closure plan as required by paragraph (b)(1) of this section, the demonstration must include a narrative discussion providing the basis for additional time beyond that specified in the closure plan. The owner or operator must place each completed demonstration, if more than one time extension is sought, in the facility's operating record as required by §257.105(i)(6) prior to the end of any two-year period. Factors that may support such a demonstration include:</i></p> <p><i>(A) Complications stemming from the climate and weather, such as unusual amounts of precipitation or a significantly shortened construction season;</i></p> <p><i>(B) Time required to dewater a surface impoundment due to the volume of CCR contained in the CCR unit or characteristics of the CCR in the unit;</i></p> <p><i>(C) The geology and terrain surrounding the CCR unit will affect the amount of material needed to close the CCR unit; or</i></p> <p><i>(D) Time required or delays caused by the need to coordinate with and obtain necessary approvals and permits from a state or other agency.</i></p>	<p>Section 7.0</p>



USEPA CCR Criteria 40 CFR 257.102	Jeffrey Energy Center (JEC) Inactive Bottom Ash Pond Closure Plan
<p>§257.102(f)(2)(ii) stipulates:</p> <p>(2)(ii) <i>Maximum time extensions.</i></p> <p>(A) <i>CCR surface impoundments of 40 acres or smaller may extend the time to complete closure by no longer than two years</i></p> <p>(B) <i>CCR surface impoundments larger than 40 acres may extend the timeframe to complete closure of the CCR unit multiple times, in two-year increments. For each two-year extension sought, the owner or operator must substantiate the factual circumstances demonstrating the need for the extension. No more than a total of five two-year extensions may be obtained for any CCR surface impoundment.</i></p> <p>(C) <i>CCR landfills may extend the timeframe to complete closure of the CCR unit multiple times, in one-year increments. For each one-year extension sought, the owner or operator must substantiate the factual circumstances demonstrating the need for the extension. No more than a total of two one-year extensions may be obtained for any CCR landfill.</i></p>	<p>Section 7.0</p>



USEPA CCR Criteria 40 CFR 257.102	Jeffrey Energy Center (JEC) Inactive Bottom Ash Pond Closure Plan
<p>§257.102(f)(2)(iii) stipulates:</p> <p><i>(iii) In order to obtain additional time extension(s) to complete closure of a CCR unit beyond the times provided by paragraph (f)(1) of this section, the owner or operator of the CCR unit must include with the demonstration required by paragraph (f)(2)(i) of this section the following statement signed by the owner or operator or an authorized representative:</i></p> <p><i>I certify under penalty of law that I have personally examined and am familiar with the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.</i></p>	<p>Section 7.0</p>
<p>§257.102(f)(3) stipulates:</p> <p><i>(3) Upon completion, the owner or operator of the CCR unit must obtain a certification from a qualified professional engineer verifying that closure has been completed in accordance with the closure plan specified in paragraph (b) of this section and the requirements of this section.</i></p>	<p>Section 10.0</p>
<p>§257.102(g) stipulates:</p> <p><i>(g) No later than the date the owner or operator initiate closure of a CCR unit, the owner or operator must prepare a notification of intent to close a CCR unit. The notification must include the certification by a qualified professional engineer for the design of the final cover system as required by §257.102(d)(3)(iii), if applicable. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by §257.105(i)(7).</i></p>	<p>Section 8.3</p>



USEPA CCR Criteria 40 CFR 257.102	Jeffrey Energy Center (JEC) Inactive Bottom Ash Pond Closure Plan
<p>§257.102(h) stipulates:</p> <p><i>(h) Within 30 days of completion of closure of the CCR unit, the owner or operator must prepare a notification of closure of a CCR unit. The notification must include the certification by a qualified professional engineer as required by §257.102(f)(3). The owner or operator has completed the notification when it has been placed in the facility's operating record as required by §257.105(i)(8).</i></p>	Section 8.4
<p>§257.102(i) stipulates:</p> <p><i>(i) Deed notations. (1) Except as provided by paragraph (i)(4) of this section, following closure of a CCR unit, the owner or operator must record a notation on the deed to the property, or some other instrument that is normally examined during title search. (2) The notation on the deed must in perpetuity notify any potential purchaser of the property that: (i) The land has been used as a CCR unit; and (ii) Its use is restricted under the post-closure care requirements as provided by §257.104(d)(1)(iii).</i></p>	Section 8.5
<p>§257.102(j) stipulates:</p> <p><i>(j) The owner or operator of the CCR unit must comply with the closure recordkeeping requirements specified in §257.105(i), the closure notification requirements specified in §257.106(i), and the closure Internet requirements specified in §257.107(i).</i></p>	Section 8.0

1.0 INTRODUCTION

APTIM Environmental and Infrastructure, Inc. (APTIM, f/k/a CB&I Environmental & Infrastructure, Inc., CB&I) has prepared the following Closure Plan (Plan) at the request of Westar Energy (Westar) for the inactive Bottom Ash Pond (Pond) located at Jeffrey Energy Center (JEC) in St. Marys, Kansas. JEC is a coal-fired power plant that has been in operation since 1980.

On July 26, 2016 the United States Environmental Protection Agency (USEPA) extended the requirements of the Disposal of Coal Combustion Residuals from Electric Utilities Final Rule (CCR Rule) 40 CFR §257 and §261, for certain inactive CCR surface impoundments. The Pond has been determined to be inactive by 40 CFR §257.53 and therefore has been deemed to be a regulated, inactive CCR unit by the USEPA through the CCR Rule. Westar is currently in the process of closing the Pond in-place in accordance with §257.100(d) of the CCR Rule and intends to complete closure of the Pond in time frames required by the CCR Rule.

This Plan details the closure requirements outlined in §257.102, for CCR units closed in place. The criteria for conducting the closure or retrofit of CCR units for the Pond are detailed in Section 2.0. Additionally, the following Plan details the necessary steps used to close the inactive Pond based on recognized and good engineering practices. All closure processes have been established to control, minimize, and eliminate the release of contact water and CCR.

2.0 REGULATORY OVERVIEW OF CCR CLOSURE PLAN REQUIREMENTS

On April 17, 2015, USEPA published the CCR Rule under Subtitle D of the Resource Conservation and Recovery Act (RCRA) as 40 CFR Part §257 and §261. The purpose of the CCR Rule is to regulate the management of CCR in regulated CCR units for landfill and surface impoundments.

Section 257.102(b) of the CCR Rule requires owners or operators of CCR landfills and surface impoundments to prepare a written closure plan describing the closure of the unit and schedule for implementation of the plan. The following citations from the CCR Rule are applicable for the Area 2, 3, and 4 Ponds as discussed in this Plan.

In addition to the above, the Plan must ensure compliance with the closure recordkeeping requirements specified in §257.105(i), the closure notification requirements specified in §257.106(i), and the closure intent requirements specified in §257.107(i). A written certification is provided in Section 10.0 from a qualified professional engineer in the State of Kansas, to certify that this Plan meets the requirements of the CCR Rule.

3.0 JEC INACTIVE BOTTOM ASH POND OVERVIEW

Westar owns and operates all waste management units at JEC in St. Marys, Pottawatomie County, Kansas. JEC is located approximately 4.5 miles north of Belvue, Kansas and approximately 4.3 miles west of Highway 63 and resides in Sections 1, 2, 11, and 12, Township 9 South, Range 11 East and Sections 6 and 7, Township 9 South, Range 12 East. At JEC the Pond is located southeast of Fly Ash Area 1, north of the FGD Landfill, west of Bottom Ash Area 1, and east of the Tower Hill Lake. The location of the Pond is depicted in **Figure 1**.

3.1 Design and Construction History

3.1.1 Original Design

A Type C fly ash berm and overflow was constructed in the early 1980's by plant staff to separate the Pond and Tower Hill Lake. The fly ash was deposited in lifts of approximately 9 to 15-inches, processed to a desired moisture content, and compacted. The Pond foundation and abutment materials primarily consists of the native underlying geologic materials. The Pond was not constructed with an engineered liner system. There are no drawings or documents available for review for the original design/construction of the berm.

3.1.2 Design Modifications

In 2000 the berm was expanded by raising the embankment to its current elevation to provide additional CCR material storage volume and to add an emergency spillway and instrumentation devices. These modifications were designed by Black & Veatch and were approved and stamped by the Kansas Department of Agriculture, Department of Water Resources (KSDWR) Chief Engineer on June 29, 2000. With the modifications, the berm became a permitted dam (Pond Dam) under Permit DPT-0160.

3.1.3 Pond Closure

The Pond has not received CCR material since October 2015 and is in the process of being dewatered for closure. Historically the Pond received CCR material from the plant, plant process water, storm water, decant water from Bottom Ash Area 1, and runoff. The final cover design and construction of the Pond will meet 40 CFR §257.100(b)(3)(i) and (ii).

3.2 Current Dimensions and Capacities

The following dimensions of the Pond, Pond Dam, and spillway structures were determined based on the most recent survey of the Pond, estimates from the Coal Ash Impoundment – Specific Site Assessment Report conducted in September 2009 by GEI Consultants, Inc. (GEI), and the Jeffrey Energy Center - CCR Impoundment Closure Design 100% Design submitted in February 2017:

- Pond
 - Surface area of 72.1 acres
 - Normal operating pool water level of 1,164 feet mean seal level (ft MSL)
 - Maximum water level elevation of 1,165 ft MSL, based on the spillway crest design elevation
 - Minimum elevation in Pond is 1,160 ft MSL based on 2016 survey

- Maximum water depth of approximately 5 feet (at the deepest portion of the Pond at maximum water elevations)
- ❑ Pond Dam
 - 1,050-feet long
 - 30-foot wide crest
 - 3H:1V sideslopes
 - Crest elevation of 1,170 ft MSL
- ❑ Spillway Structures
 - South Outlet Structure
 - Open-channel spillway
 - 450-feet long
 - 40-feet wide
 - 3H:1V sideslopes
 - Rock control crest at 1,165 ft MSL
 - Upstream side lined with 1.5-foot thick layer of limestone riprap
 - North Outlet Structure
 - Concrete-lined box culvert
 - 271-feet long
 - 12-feet wide
 - 6-feet tall
 - Downstream side lined with riprap

The Pond is currently undergoing closure and has been dewatered. Historically, the typical impounded water volume within the Pond was determined to be approximately 62,680 cubic yards (cy), as described in the 2017 Annual Inspection Report. The CCR depths within the Pond have varied through time due to the continual deposit and discharge of water and CCR materials, and whether the fines have settled out in the alluvial fan/ravine (elevation higher than 1,164 ft MSL). The remaining CCR material storage capacity within the Pond was calculated in the 2017 Annual Inspection Report and was determined to be approximately 138,232 cy. The total CCR volume is unknown due to a range of ash material sources historically being routed to the Pond. Site topography prior to closure is depicted in **Figure 2**.

3.3 Remaining Life and Volume (§257.102(b)(1)(iv))

Upon closure of the Pond, this unit will be used as passive land. All CCR material that will be maintained within the Pond footprint will be capped beneath a minimum 18-in. clay cover covered by a 6-in layer of topsoil capable of maintaining vegetation, in accordance with §257.102(d)(3)(i). Closure activities will be completed in the time frame required by the CCR Rule, therefore, no remaining life or volume are applicable.

3.4 Largest Area Requiring Final Cover (§257.102(b)(1)(v))

As discussed previously, closure construction activities will be completed in the time frame required by the CCR Rule. Once closure is complete, all CCR material will be capped beneath a minimum 18-in. clay cover covered by a 6-in layer of topsoil capable of maintaining vegetation, therefore, there is no longer any area that requires final cover.

4.0 CLOSURE PLAN (§257.102(b)(1))

This Plan has been prepared in accordance with requirements of the CCR Rule and includes a written certification in Section 10.0 from a qualified Professional Engineer for the State of Kansas.

4.1 Narrative Description (§257.102(b)(1)(i))

Closure of the Pond will be accomplished by installing a low-permeable cap above the CCR material to remain in-place. The low-permeable cap will consist of a minimum 18-in. clay cover covered by a 6-in layer of topsoil capable of maintaining vegetation, in accordance with §257.102(d)(3)(i).

The method of closure has been designed to minimize maintenance, control run-on and run-off and ensure the protection of human health and the environment. Closure of Pond will continue to follow Construction Quality Assurance (CQA) procedures to ensure that closure is performed and constructed in accordance with recognized standards and accepted good engineering practices as detailed in the following sections.

4.2 Closure Overview (§257.102(c))

Closure of the Pond will be completed in two phases in order to continue operations and discharges to Tower Hill Lake. Phase I will consist of installing the north and south diversion ditches, installing the north diversion ditch outlet structure, and installing all dewatering ditch segments. Phase II will consist of the phased installation of the final cap ditch segments and interface to the north and south diversion ditches as well as final cover installation over approximately 65 acres.

Closure will adhere to the following processes:

- Clear and grub Pond area to prepare construction limits.
- Construct north and south diversion ditch segments and connect plant flows.
- Construct temporary dewater ditch segments.
- Install low-permeable cap consisting of a minimum 18-in. clay cover covered by a 6-in layer of topsoil capable of maintaining vegetation.
- Construct permanent cap ditch segments and connect to north and south diversion ditch segments.
- Seed and maintain vegetative cover on final cover cap.
- In accordance with §257.102(c), closure will be complete when the groundwater constituent concentrations and any area affected by releases from the CCR unit do not exceed the groundwater protection standard established for constituents listed in Appendix IV in §257.95(h).

Throughout the CQA closure activities, JEC and/or their contractor(s) will provide written/photographic documentation of the work performed to serve as a supplemental record for review.

5.0 CONSTRUCTION CONSIDERATIONS

5.1 Equipment

Westar, or their contractor, is responsible for providing sufficient equipment to carry out the clean closure operations, as designed, in a satisfactory manner. Equipment for the clean closure operations may include any or all of the following, as described in Table 1, and potentially other equipment of deemed appropriate by Westar and their contractor(s):

TABLE 1: CONSTRUCTION EQUIPMENT	
EQUIPMENT	PURPOSE
Tracked Dozer	Spreading fill and vegetative material
Excavators	Removing CCR material, clay, and any contaminated soils
Compactor	Compacting low-permeable liner and fill material
Haul Trucks	Haul fill material to the construction site
Drum Rollers	Preparing the clay fill top surface for vegetative layer placement
Dewatering Equipment	Draining water from ponds prior to CCR material and clay removal

5.2 Stormwater Run-On and Run-Off Controls

Generally accepted good engineering practices for stormwater controls during construction will be configured in a way to reduce the amount of stormwater run-on/run-off at the on-going construction area. In addition, temporary dewater ditch segments, permanent ditch segments, and diversion ditches have been designed to properly convey stormwater and process water from plant operations.

5.3 Erosion Control

Erosion control measures such as silt fences, vegetation, erosion control blankets and other suitable and acceptable measures will be used to minimize erosion during construction and of the completed restoration work.

The vegetated layer will assist in preventing erosion of the fill used to restore disturbed areas and control surface water run-off rates. Construction of any erosion control measures

including dikes and berms will take place as necessary and will be in accordance with the generally accepted good engineering standards and practices.

5.4 Slope Stability

Generally accepted good engineering practices for dewatering and excavation slope stability will be utilized throughout the entirety of the construction project, when necessary, to ensure acceptable safety factors are met based on industry standards. In addition, the final cover cap and slopes have been designed to accommodate settling and subsidence to minimize ponding water and maintain positive overland drainage.

6.0 OPERATIONS AND MAINTENANCE

Following closure, the Pond will be inspected for erosion and vegetation. Routine maintenance will occur to minimize erosion and to control excessive vegetative growth. This will include mowing the grass regularly and removing woody vegetation if necessary.

7.0 CLOSURE ACTIVITY SCHEDULE (§257.102(b)(1)(vi))

The closure of the Ponds will be completed according to the following schedule milestones:

- Based on the current progression of construction activities, it is expected that closure will be completed in the time frame required by the CCR Rule. Closure will be complete when the groundwater constituent concentrations and any area affected by releases from the CCR unit do not exceed the groundwater protection standard, in accordance with §257.102(c).
- Notify KDHE in writing at least 60 days before closure.
- Upon completion of the closure activities, a certified Kansas Professional Engineer will provide KDHE with a closure certification. This will verify that closure activities were performed and completed in accordance with the Plan. The certification will be provided within 30 days of the completion of closure activities.
- Within 30 days of the completion of clean closure, the notification of closure of the CCR unit will be submitted as per §257.102(h).

8.0 RECORD KEEPING/NOTIFICATION REQUIREMENTS (§257.106(j))

In accordance with §257.102(j), Westar maintains an operating record consisting of the documents specified in §257.105(i).

In accordance with §257.102(j), Westar will comply with the notification requirements specified in §257.106(i).

Internet requirements specified in §257.107(i) will be placed on owner and operators publicly accessible website, as per §257.102(j).

All records that are relevant within the past five years will be maintained at JEC and/or by Westar. The records are available to KDHE representatives for review upon request.

8.1 Plan Amendments (§257.102(b)(3))

This Plan will continue to undergo review as needed if the pond design or construction plans are modified throughout the construction process. The amended Plan will be reviewed and recertified by a registered professional engineer and will be placed in JEC's facility operating record as required per §257.105(i)(4). The amended Plan will supersede and replace any prior versions. Availability of the amended Plan will be noticed to the State Director per §257.106(i) and posted to the publicly accessible internet site per §257.107(i).

A record of Plan reviews/assessments is provided on the first page of this document, immediately following the Table of Contents. Any subsequent amendment of a written Plan will be prepared as required, such as:

- There is a change in the operation of the CCR unit that would substantially affect the written Plan in effect; or
- Before or after closure activities have commenced, unanticipated events necessitate a revision of the written Plan.

The owner or operator will amend the Plan at least 60 days prior to a planned change in the operation of JEC or CCR unit, or no later than 60 days after an unanticipated event requires the need to revise an existing written Plan. If a written Plan is revised after closure activities have commenced for a CCR unit, the owner or operator will amend the closure plan no later than 30 days following the triggering event.

8.2 Amended Plan Certification (§257.102(b)(4))

APTIM reviewed any previously developed closure information/plans which exist for the Pond. APTIM prepared a Plan to address closure by capping CCR material in-place.

This Plan will continue to undergo review as the Pond continues phased construction activities. Any future amendments to the current Plan will be tracked in the log at the beginning of this document and will be certified by a qualified professional engineer that the amended plan meets the requirements of the applicable portions of the CCR Rule. The amended Plan will be placed in JEC's facility operating record as required per §257.105(i)(4), noticed to the State Director per §257.106(i), and posted to the publicly accessible internet site per §257.107(i)

8.3 Notice of Intent to Initiate Closure (§257.106(g))

Westar has filed a Notice of Intent of closure activities no later than the date of initiation of closure of the Pond. The notification includes the certification by a registered professional engineer for the closure of the Pond and will be placed in the operating record.

8.4 Notice of Completion of Closure (§257.106(h))

Westar will complete a Notice of Completion of closure activities within 30 (thirty) days of completion of closure of the Pond. The notification will include the certification by a registered professional engineer as required by §257.102(f)(3).

8.5 Deed Notation (§257.102(i))

In accordance with §257.102(i), a notation on the deed to the property, or some other instrument, that is normally examined during a title search will be recorded to notify any potential purchaser of the property that the land has been used as a CCR unit. The following information will be recorded in accordance with the CCR Rule:

- The name and address of the person with knowledge of the contents of the Pond; and
- The prior land use as a CCR unit.

9.0 CLOSURE COST ESTIMATE

The closure cost for the Pond is estimated to be approximately \$3,217,754, as of April 2018. The maximum closure cost estimates to complete closure construction is provided to KDHE on an annual basis. This information can be obtained through KDHE-BWM by completing the Kansas Open Records Act Request Form.

In providing these cost estimates, it is recognized that Westar does not have control over the costs of labor, equipment, or materials, or over a Contractor's method(s) of determining prices or bidding.

10.0 PROFESSIONAL ENGINEER CERTIFICATION (§257.102(f)(3))

The undersigned registered professional engineer is familiar with the requirements of CCR Rule requirements of §257.102 of the CCR Rule and has visited and examined JEC or has supervised examination of JEC by appropriately qualified personnel. The undersigned registered professional engineer attests that this Closure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and meets the requirements of §257.102, and that this Plan is adequate for JEC's facility. This certification was prepared as required by §257.102(d)(3)(iii).

Name of Professional Engineer: Richard Southorn

Company: APTIM

Signature: 

Date: 04/16/18

PE Registration State: Kansas

PE Registration Number: PE25201

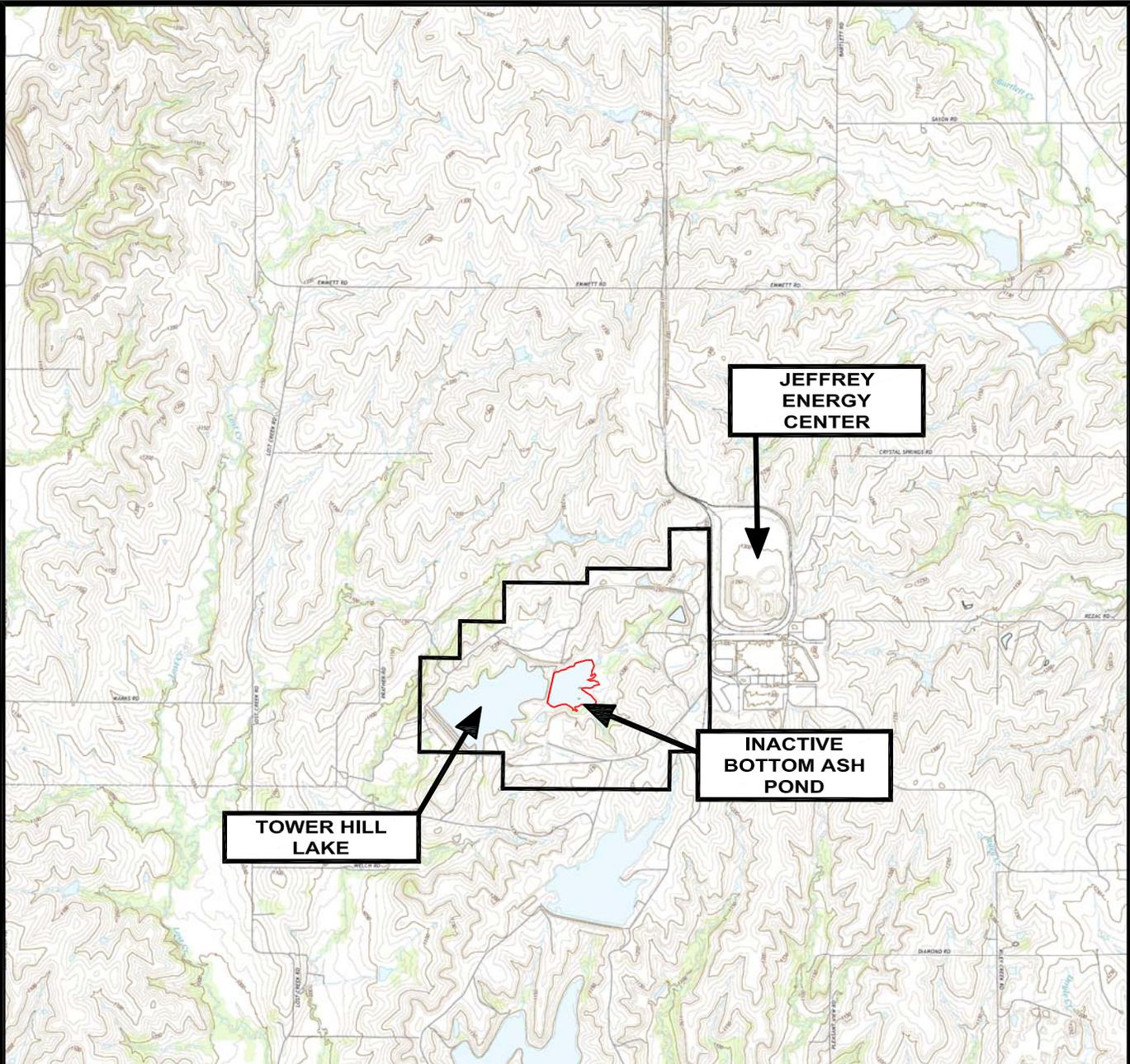
Professional Engineer Seal:



FIGURES

Figure 1 - Inactive Bottom Ash Pond, Site Location Plan

Figure 2 - Inactive Bottom Ash Pond, Site Topography Prior to Closure

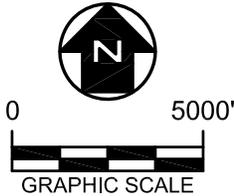


LEGEND

- CCR UNIT BOUNDARY
- KDHE-BWM INDUSTRIAL LANDFILL PERMIT NO. 0359 BOUNDARY

NOTES

1. AERIAL TOPO OBTAINED FROM USGS 7.5-MINUTE SERIES, EMMETT AND LACLEDE QUADRANGLE, KANSAS, 2014.
2. ALL BOUNDARIES ARE APPROXIMATE.



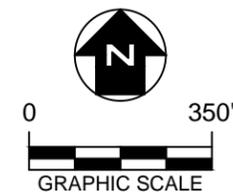
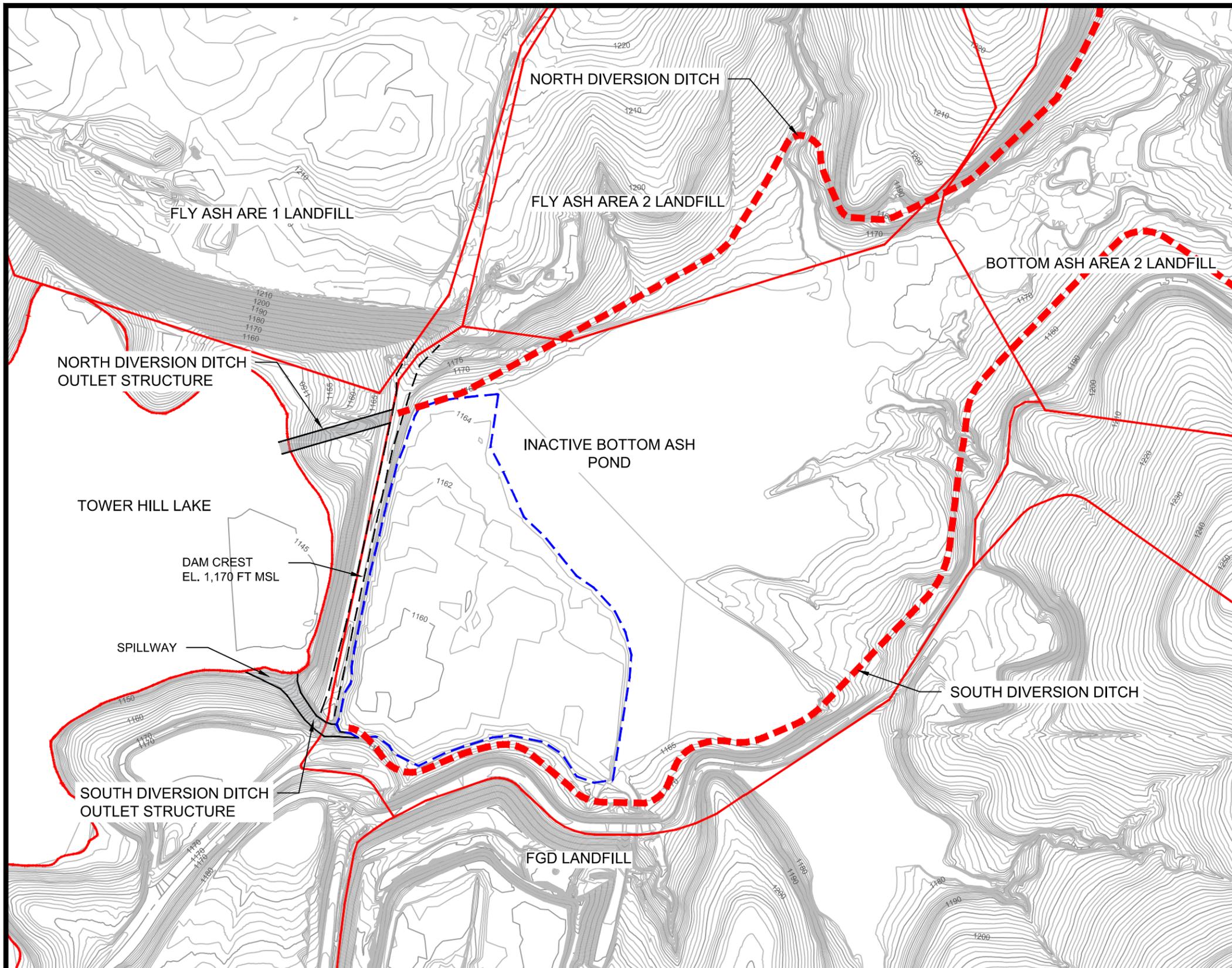
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**FIGURE 1
FGD LANDFILL
SITE LOCATION PLAN**

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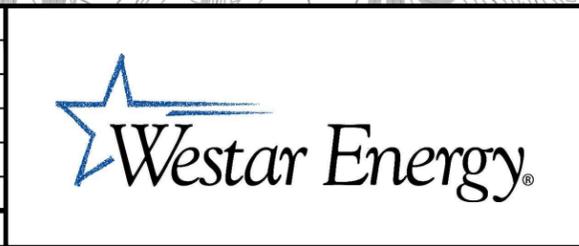
LEGEND

- APPROXIMATE CCR UNIT BOUNDARY
- - - APPROXIMATE WATER ELEVATION
- - - APPROXIMATE POND DAM BOUNDARY
- APPROXIMATE SPILLWAY BOUNDARY
- - - APPROXIMATE DIVERSION DITCH DELINEATION

NOTES

1. EXISTING CONTOURS DEVELOPED BY PROFESSIONAL ENGINEERING CONSULTANTS IN APRIL 2016.
2. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
3. ALL BOUNDARY AND FEATURE LOCATIONS ARE APPROXIMATE.

REV. NO.	DATE	DESCRIPTION




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FIGURE 2
INACTIVE BOTTOM ASH POND
SITE TOPOGRAPHY PRIOR TO CLOSURE

DRAWN BY:	ORC	APPROVED BY:	MMS	PROJ. NO.:	631232565	DATE:	APRIL 2018
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