

CCR Closure Plan Ash Impoundment



Iatan Generating Station

Kansas City Power & Light Company
Project No. 87292

Revision 0
4/13/2018

CCR Closure Plan Ash Impoundment

prepared for

**Kansas City Power & Light Company
Iatan Generating Station
Weston, Missouri**

Project No. 87292

**Revision 0
4/13/2018**

prepared by

**Burns & McDonnell Engineering Company, Inc.
Kansas City, Missouri**

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INDEX AND CERTIFICATION

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Certification

I hereby certify, as a Professional Engineer in the State of Missouri, that the information in this document was assembled under my direct personal charge. This report is not intended or represented to be suitable for reuse by the Kansas City Power & Light Company or others without specific verification or adaptation by the Engineer.



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Date: 04/13/13

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LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
Iatan	Iatan Generating Station
KCP&L	Kansas City Power & Light Company
RCRA	Resource Conservation and Recovery Act
U.S.C.	United States Code

1.0 INTRODUCTION

On April 17, 2015, the Environmental Protection Agency (EPA) issued the final version of the federal Coal Combustion Residuals Rule (CCR Rule) to regulate the disposal of coal combustion residuals (CCR) generated at coal-fired units. The rule is administered as part of the Resource Conservation and Recovery Act ([RCRA, 42 United States Code [(U.S.C.)] §6901 et seq.]), under Subtitle D.

On August 5, 2016, the EPA published the CCR “Extension Rule” following a United States Court of Appeals settlement between the utility industry and environmental groups. The Extension Rule became effective on October 4, 2016, and it, in part, removed the “early closure” provisions for inactive surface impoundments under the original CCR Rule and extended compliance deadlines for these impoundments. The inactive CCR surface impoundment (herein referred to as the Ash Impoundment) at Kansas City Power & Light Company’s (KCP&L’s) Iatan Generating Station (Iatan) is subject to the CCR Rule, and as such, KCP&L is required to develop a Closure Plan per 40 Code of Federal Regulations (CFR) §257.102 no later than April 17, 2018. This report serves as the Closure Plan for the Ash Impoundment at Iatan.

2.0 PLAN OBJECTIVES

Per 40 CFR §257.102 (b), the Closure Plan for a CCR unit being closed by removal of CCR must contain the following:

- A description of how the CCR unit will be closed.
- A description of the procedures to remove the CCR and decontaminate the CCR unit in accordance with 40 CFR §257.102(c).
- An estimate of the maximum inventory of CCR material ever stored in the CCR unit over its active life.
- A schedule for completing closure activities, including the anticipated year of closure and major milestones for permitting and construction activities.

Because the Ash Impoundment is being closed by removal of CCR, a Post-Closure Plan is not required per 40 CFR §257.104(b).

Per 40 CFR §257.102(b)(4), KCP&L must obtain certification from a qualified professional engineer that the closure plan, and subsequent updates to the plan, meets the requirements of 40 CFR §257.102. This sealed document serves as that certification.

3.0 EXISTING CONDITIONS

Iatan is located northwest of Weston in Platte County, Missouri. The site contains one CCR surface impoundment, the Ash Impoundment, which is incised.

Historically, CCR materials were sluiced or deposited into the Ash Impoundment while the adjoining Reclamation Pond predominately served as a source of recirculating sluice water, receiving primarily decanted overflow and stormwater. Much of the fly ash deposited in the north portion of the impoundment became cemented over time.

The Ash Impoundment closure design began in 2015 with closure construction starting in April of 2016. Closure construction will be ongoing through completion.

3.1 CCR Inventory

It is estimated that approximately 1.7 million cubic yards of material were stored in the impoundment prior to commencing closure construction.

4.0 CLOSURE METHOD

The Ash Impoundment will be closed by removing CCR. Procedures that are underway for closing the surface impoundment are described in detail herein.

4.1 Removal of CCR

Loose sediment is hydraulically dredged from the impoundment and sent to geotextile tubes for dewatering. The tubes sit for a period of time as dictated by weather conditions and other contractor activities, then the tubes are broken up so that the material can be loaded onto haul trucks and placed in the on-site CCR landfill or used beneficially. Hardened CCR material from the north portion of the Ash Impoundment is mechanically excavated and hauled to the on-site CCR landfill unless used beneficially. CCR removal progress is confirmed by comparing bathymetric surveys to the estimated impoundment bottom surface, which was updated to reflect the results of field investigation efforts.

4.2 Post-Closure Conditions

Dredging activities will conclude upon completion of CCR removal, which will be verified by bathymetric survey as noted above. Groundwater monitoring will be conducted to confirm that CCR removal and decontamination has been completed pursuant to §257.102(c) of the CCR Rule.

5.0 CLOSURE SCHEDULE

An estimated schedule for completing the CCR surface impoundment closure at Iatan is included in Table 5-1. Per 40 CFR §257.102(f) of the CCR Rule, closure must be completed within five years of initiating closure activities unless extensions are granted per 40 CFR 257.102(e)(2). Closure activities began after contractor mobilization in April 2016, and at this time, closure is anticipated to be completed prior to April of 2021.

Table 5-1: Closure Schedule

Notification of Intent to Close Placed in Operating Record	December 17, 2015
Permitting & Design Support	4 th Quarter 2015 – 1 st Quarter 2016
Mobilization	2 nd Quarter 2016
General Construction	1 st Quarter 2016 – 1 st Quarter 2021
Project Completion	2 nd Quarter 2021

Notes:

1. Final closure of surface impoundments must be completed within five years of commencing closure unless a demonstration is placed in the operating record (40 CFR 257.102(f)(2)).
2. Initiation of Closure may be extended for multiple two-year periods in accordance with 40 CFR 257.102(e)(2) (ii) and (iii).

For the purposes of this Closure Plan, closure of the Ash Impoundment is considered complete when CCR has been removed from the unit and placed in the on-site landfill or sent offsite for beneficial reuse. Within 30 days of completion of closure, a Notification of Closure of the CCR surface impoundment will be prepared and placed in the facility's CCR Operating Record. This Notification of Closure will be posted on KCP&L's public CCR website within 30 days of placement in the Operating Record. This notification will include certification by a qualified professional engineer in the State of Missouri verifying that closure has been completed in accordance with this Closure Plan and the requirements of 40 CFR §257.102.

6.0 REVISIONS AND AMENDMENTS

The initial Closure Plan will be placed in the CCR Operating Record by April 17, 2018. If the Closure Plan is revised, the written Closure Plan will be amended no later than 30 days following the triggering event. The initial Closure Plan and any amendment will be certified by a qualified professional engineer in the State of Missouri for meeting the requirements of §257.102 of the CCR Rule. All amendments and revisions must be posted on the CCR public website within 30 days following placement in the facility's CCR Operating Record. A record of revisions made to this document is included in Section 7.0 of this document.

7.0 RECORD OF REVISIONS AND UPDATES

Revision Number	Date	Revisions Made	By Whom
0	04/13/2018	Initial Issue	Burns & McDonnell



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