



Closure Plan for Existing CCR Landfills

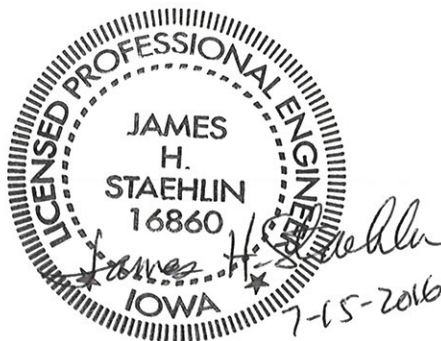
Prepared for Interstate Power and Light Company
Prairie Creek Generating Station
Cedar Rapids, IA

Issue Date: July 18, 2016
Issue Purpose: For Use

Prepared by:		07/06/2016
	D. Jolivet	Date
Reviewed by:		07/08/2016
	D. Dahlberg	Date
Approved by:		07/15/2016
	J. Staehlin	Date

 Sargent & Lundy ^{L.L.C.}

Certification and Seal:



55 East Monroe Street
Chicago, IL 60603-5780 USA

Project No. 13391-017

Report No. SL-013422
Revision: 0

FINAL



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1. INTRODUCTION

Interstate Power and Light Company (IPL) – a wholly owned subsidiary of Alliant Energy – operates the four-unit Prairie Creek Generating Station (PCS), located in Cedar Rapids, Iowa. This coal-burning facility manages two small Coal Combustion Residual (CCR) piles, which are regulated as CCR Landfills. These CCR Landfills are currently in use, but will cease receiving CCR once a bottom ash conversion of Unit 3 and a natural gas conversion of Unit 4 are complete by January 1, 2018. The remaining two units (1 and 2) do not contribute CCR flows to the Station’s landfills.

To comply with the requirements of the USEPA Final CCR Rule (40 CFR 257.50 thru 257.107) published on April 17, 2015 and amended on July 2, 2015, Alliant Energy, on behalf of its subsidiary IPL, submits the following Closure Plan detailing the steps to be undertaken to close the existing CCR landfills by removal of all CCR, in accordance with §257.102(b) of the CCR Rule.

This document provides the following required information:

- Facility information,
- Estimate of the maximum inventory of CCR on-site in the existing landfills,
- Proposed CCR landfill closure procedure and,
- Schedule for completing all closure activities.

The Prairie Creek Generating Station currently has two (2) existing CCR Landfills at the site. This Closure Plan applies to the following CCR units:

- PCS Bottom Ash Pile
- PCS Beneficial Use Storage Area

The location of these landfills is shown on Figure 1.

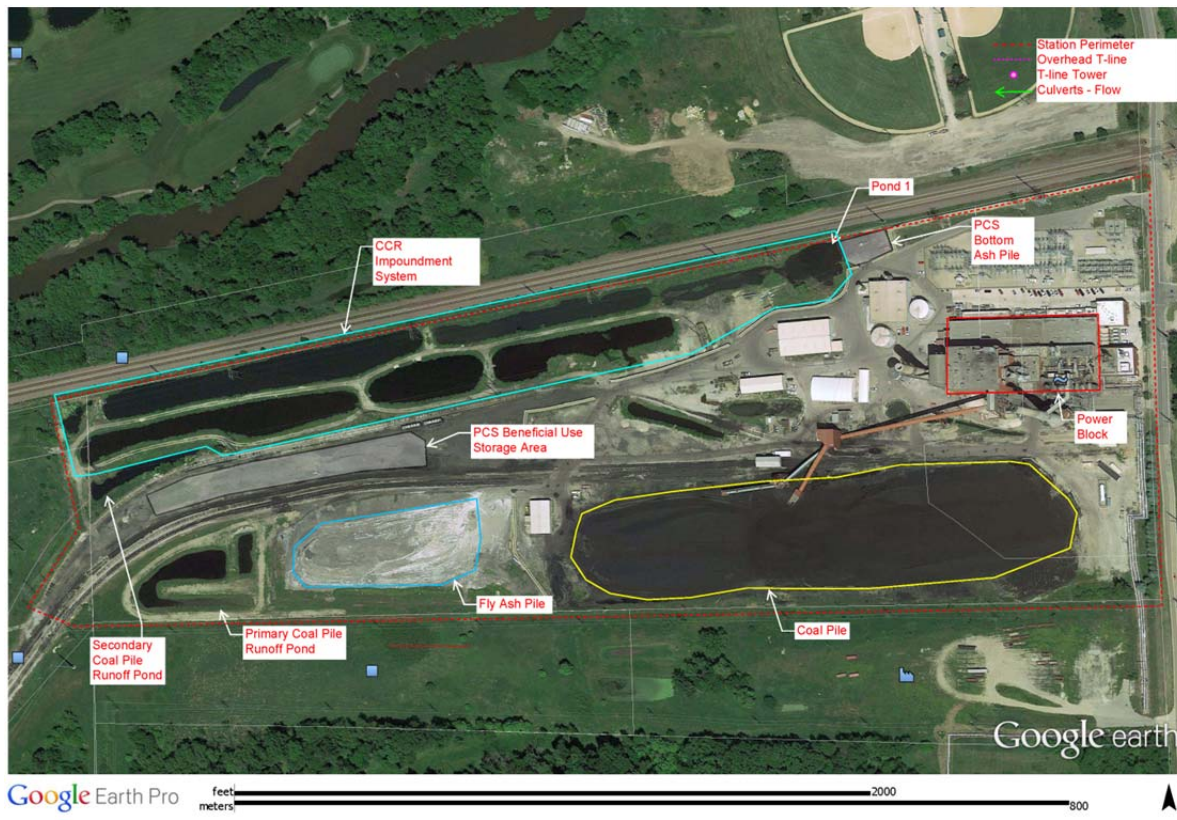


Figure 1: Existing CCR Landfill locations at Prairie Creek Generating Station

The PCS Bottom Ash Pile is located adjacent to Pond #1 (part of the impoundment system at the Station) and serves as a temporary dewatering facility for bottom ash. Once the CCR is sufficiently dewatered, it is hauled offsite either for beneficial re-use or for permanent disposal at a permitted landfill. The total area of this landfill is approximately 0.19 acres.

The PCS Beneficial Use Storage Area is located between the inactive fly ash stockpile and the CCR surface impoundments, adjacent to the railway line that services the Station. The total area of this landfill is approximately 1.3 acres.

The Station manages an inactive hydrated fly ash stockpile that ceased receipt of CCR prior to October 19, 2015. The material in this stockpile is intended to be used in the closure of the CCR impoundments. This stockpile and the various impoundments onsite are addressed in a separate closure plan.

2. PROPOSED CCR LANDFILL CLOSURE PROCEDURE

The proposed closure of the CCR landfills at Prairie Creek will be performed through removal of the CCR and completed according to the following steps:

- Removal of CCR material from PCS Bottom Ash Pile and PCS Beneficial Use Storage Area for offsite disposal in a permitted landfill or beneficial re-use,
- Stripping of in-situ soil at the bottom of the CCR piles that may be intermixed with the CCR above (this material will be disposed of in a permitted landfill or incorporated into the closure of the CCR surface impoundments at PCS),
- Visual examination of area formerly occupied by CCR landfill to ensure proper cleanup,
- Restoration of area formerly occupied by landfills and,
- Sampling of groundwater after CCR material removal for Appendix IV constituents.

The site occupied by the landfills may be restored by placement of an aggregate surface or by providing seeding over topsoil.

Section 257.102(c) of the CCR Rule considers closure by removal of CCR material to be complete when constituent concentrations throughout the CCR unit and any areas affected by releases from the unit have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standards established pursuant to §257.95(h) for constituents listed in Appendix IV to the CCR Rule.

3. ESTIMATED MAXIMUM INVENTORY OF CCR

Based on existing information from IPL provided to S&L in the preparation of this Plan, it is estimated that approximately 50 tons of CCR material are currently present in the PCS Bottom Ash Pile and 400 tons are in the PCS Beneficial Use Storage Area. Updated stockpile sizes will be determined once CCR flows to these have ceased.

4. ESTIMATED MAXIMUM AREA OF COVER

Since the closure of the landfills at PCS will be completed through removal of CCR, no cover system is required by the CCR Rule. However, the total area that may be restored post-closure by placement of an aggregate surface or topsoil with vegetation is approximately 1.5 acres.

5. SCHEDULE

Closure of the existing CCR landfills is anticipated to require approximately 2 months for removal of the CCR. However, groundwater monitoring to ensure groundwater protection standards are met after CCR has been removed may take longer. The schedule provided in Table 1 estimates a closure initiation date of January 31, 2018 following bottom ash handling conversion, with a completion of closure by May 2018. Alliant Energy will obtain certification from an Iowa licensed professional engineer that the CCR landfills were closed in accordance with the Closure Plan.



The certification will be placed in the Station's operating record within 60 days of completing closure.

TABLE 1: PLANNING LEVEL SCHEDULE FOR CLEAN CLOSURE OF LANDFILLS 1 AND 2

Task Description	Anticipated Start Date	Anticipated Completion Date
Pre-Design Activities		
Preparation of <i>Closure Plan</i> for compliance with Federal CCR Rule	04/16/2016	10/16/2016
Post <i>Closure Plan</i> in the Station's Operating Record	10/16/2016	10/16/2016
Send a Notification of the availability of the Closure plan to the Relevant State Director and publish <i>Closure Plan</i> to the Station's Internet Website	10/16/2016	11/15/2016
Groundwater background sampling and analysis	09/01/2017	10/17/2017
Design / Bidding / Permitting		
Engineering / Preparation of Bid docs	05/15/2017	07/31/2017
Issue Request for Bids	08/01/2017	08/01/2017
Bids due	08/31/2017	08/31/2017
Bid Evaluation Period	09/01/2017	10/31/2017
Issue Award and Notice to Proceed	11/01/2017	12/31/2017
Construction		
Place a <i>Notification of Intent to Close</i> the Surface Impoundment in the Station's Operating Record	01/31/2018	01/31/2018
Send <i>Notification of Intent to Close</i> to State Director and post Notification to the Station's Internet Website	02/01/2018	02/28/2018
Initiation of clean closure activities	03/01/2018	03/01/2018
Contractor Mobilization	03/01/2018	03/10/2018
Removal of CCR material	03/10/2018	04/31/2018
Visual inspection of landfill areas post-CCR removal	05/01/2018	05/15/2018
Restoration of former landfill areas	05/15/2018	05/30/2018
Post-Construction Administration		
Collection of post-closure groundwater samples & analysis	06/01/2018	10/31/2018
Certification of completion of closure by a Professional Engineer	11/01/2018	11/01/2018
Place a Notification of Pond Closure Completion in the Station's Operating Record	11/15/2018	11/30/2018
Send Notification of availability of Closure Completion to Relevant State Director / place Closure Completion to the Station's Internet Website	11/30/2018	11/30/2018
Record a Notation of the CCR Landfill Closure on the Deed of the Property	11/15/2018	11/30/2018



Task Description	Anticipated Start Date	Anticipated Completion Date
Place a Notification of the Deed Notation in the Station's Operating Record	11/30/2018	11/30/2018
Send Notification of availability of Deed Notation to Relevant State Director / place Deed Notation to the Station's Internet Website	11/30/2018	11/30/2018

6. COMPLETION OF CLOSURE ACTIVITIES

To confirm completion of the closure of the landfills, IPL will retain a qualified professional engineer licensed in the State of Iowa to verify that the existing CCR landfills have been closed in accordance with this Closure Plan. Additionally, groundwater samples will be collected to verify that concentrations of Appendix IV constituents do not exceed the groundwater protection standards established pursuant to 40 CFR 257.95(h). The qualified professional engineer will provide IPL with a written certification, as required in 40 CFR 257.102(f)(3). Since these landfills are closed by removal of CCR, a post-closure plan is not required per 40 CFR 257.104(a)(2).

7. CERTIFICATIONS

It is S&L's opinion that this written closure plan meets the requirements of 40 CFR 257.102(b).

8. REFERENCES

1. 40 CFR Part 257, Subtitle D, – Environmental Protection Agency Hazardous and Solid Waste management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule, Federal Register, Vol. 80, No. 74, Friday April 17, 2015, as amended by the Technical Amendments published in the Federal Register on July 2, 2015.