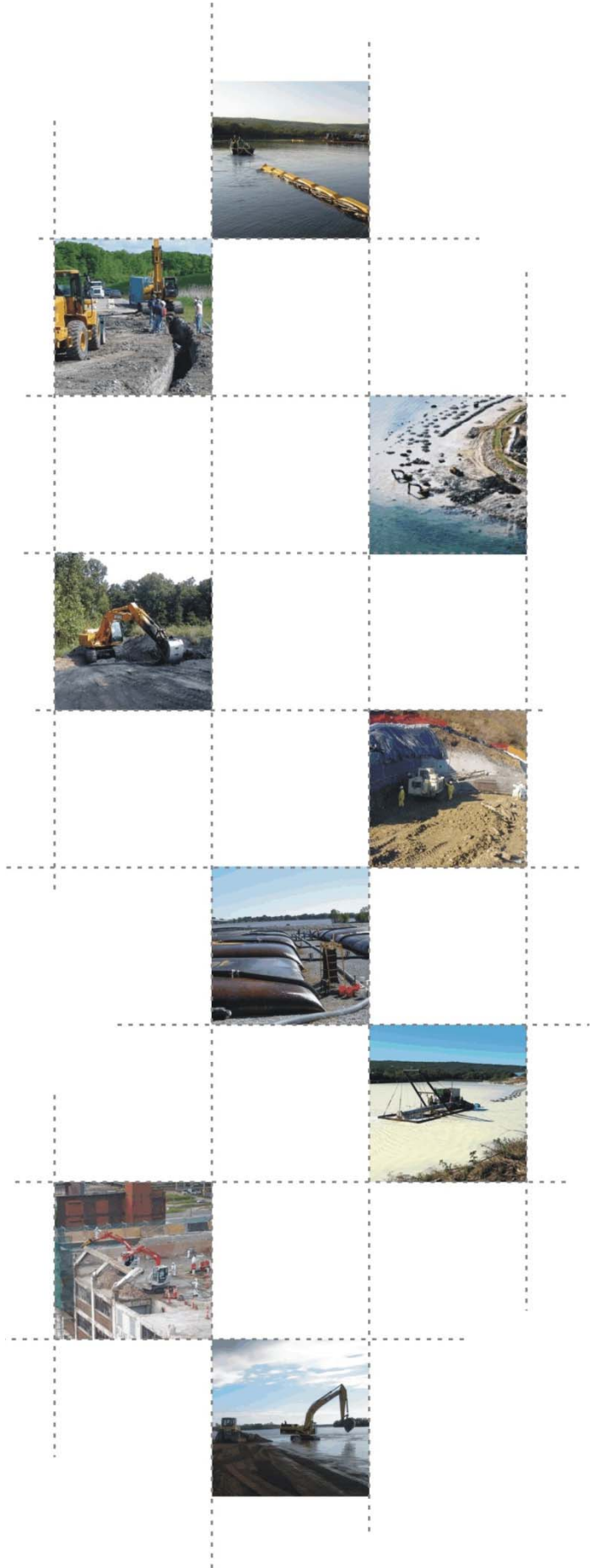


**ALLIANT ENERGY
INTERSTATE POWER AND LIGHT
PRAIRIE CREEK GENERATING STATION**

CCR PILE (LANDFILL)

ANNUAL INSPECTION REPORT

January 2016



EXECUTIVE SUMMARY

This annual inspection report has been prepared in accordance with the requirements of the United States Environmental Protection Agency (USEPA) published Final Rule for Hazardous and Solid Waste Management System - Disposal of Coal Combustion Residual (CCR) from Electric Utilities (40 CFR Parts 257 and 261) published on April 17, 2015 and effective October 19, 2015.

This annual inspection report has been prepared to assess the condition of existing CCR Piles, which are treated as CCR Landfills under the CCR Rule. Primarily, the annual inspection report is to ensure that the design, construction operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards.



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1.0 INTRODUCTION

This annual inspection report has been prepared in accordance with the requirements of §257.84(b) of the CCR Rule. The existing CCR Piles are defined, per the CCR Rule, as CCR Landfills.

1.1 CCR Rule Applicability

The CCR Rule requires annual inspections by a qualified professional engineer (PE) for existing CCR Landfills.

1.2 Annual Inspection Applicability to the Prairie Creek Generating Station

The Interstate Power and Light Company (IPL), Prairie Creek Generating Station (PCS) in Cedar Rapids, Iowa has two onsite existing CCR Piles as defined by the CCR Rule. The existing CCR Piles at PCS is required to be inspected by a qualified PE on a periodic basis per §257.84(b) of the CCR Rule.

The initial annual inspection of the PCS CCR Piles was completed by a qualified PE on December 7, 2015. The annual inspection was completed by a qualified PE to ensure that the design, construction, operation, and maintenance of the existing CCR Piles at PCS is consistent with recognized and generally accepted good engineering standards.

The initial annual inspection of the CCR Piles included a review of available information regarding the status and condition of the existing CCR Piles. The information reviewed included all relevant files available in the operating record at the time of the initial annual inspection. These files for the PCS CCR Piles included the 7-day inspection forms. Additionally, the initial annual inspection included a visual inspection of the existing CCR Piles in order to identify signs of distress or malfunction of the existing CCR Piles.



2.0 DESCRIPTION OF EXISTING PCS CCR PILES

The following sub-section provides a summary description of the existing PCS CCR Piles.

2.1 PCS Bottom Ash Pile

The PCS Bottom Ash Pile is located immediately east of the where the sluiced CCR enters PCS Pond 1. Typically a front end loader is used to remove CCR from the pond bottom and Pile it east of the limits of the PCS Pond 1. All water that drains from the CCR Pile sheet-flows back into the PCS Pond 1. Although the Bottom Ash Pile is not within the limits of the PCS Pond 1, it is located within close proximity.

2.2 PCS Beneficial Use Storage Area

After the CCR is dewatered at the PCS Bottom Ash Pile, the CCR is either hauled directly offsite or transported to the on-site PCS Beneficial Use Storage Area.

The PCS Beneficial Use Storage Area is located approximately 1,300 feet west, southwest of the PCS Bottom Ash Pile and is in-between two sets of railroad tracks that run along both the north and south sides of the PCS Beneficial Use Storage Area. Because the area is flat, surface water runoff often pools in the CCR Pile area and either evaporates or infiltrates into the ground.



3.0 ANNUAL INSPECTION REPORTING CRITERIA

The following sub-sections address the annual inspection reporting criteria per §257.84(b)(2) of the CCR Rule for the existing CCR Piles located at PCS.

3.1 PCS Bottom Ash Pile

3.1.1 Changes in Geometry (§257.84(b)(2)(i))

After review of available information provided by PCS pertaining to the status and condition of the existing CCR Piles, as well as discussions with PCS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing PCS CCR Dewatering Pile, there have been no identified changes in the geometry of the Pile that would warrant additional investigation or remedial activities.

Based on our inspection, the CCR Pile has been kept within the limits of the Bottom Ash Pile area. Because the CCR Pile is actively being used, there is no cover vegetation and is limited only to CCR materials. Additionally, the CCR Pile does change shape based on current operations of the facility but generally stays in the same location.

3.1.2 Volume of CCR (§257.84(b)(2)(ii))

The PCS Bottom Ash Pile area is approximately 120 feet by 50 feet in footprint. Depending on operations, the CCR Pile changes volume, shape, and location within the area. At the time of inspection the CCR Pile contained approximately 25 cubic yards of CCR and was in an area of 20 feet by 20 feet.

3.1.3 Structural Weaknesses and Disruptive Conditions (§257.84(b)(2)(iii))

After review of available information provided by PCS pertaining to the status and condition of the existing CCR Pile, discussions with PCS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR Pile, as well as conducting the on-site visual inspection of the existing CCR Pile, there have been no identified appearances of an actual or potential structural weakness of the existing CCR Pile that would warrant additional investigation or remedial activities.

Additionally, there were no existing conditions of the CCR Pile that were disrupting or have the potential to disrupt the operation and safety of the existing CCR Pile.



3.1.4 Other Changes Affecting Stability or Operation of Impounding Structure (§257.84(b)(2)(iv))

After review of available information provided by PCS personnel pertaining to the status and condition of the existing CCR Pile, as well as discussions with PCS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR Pile, there have been no other identified changes that have affected the stability or operation of the CCR Pile.

3.2 PCS Beneficial Use Storage Area

3.2.1 Changes in Geometry (§257.84(b)(2)(i))

After review of available information provided by PCS pertaining to the status and condition of the existing CCR Piles, as well as discussions with PCS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing PCS Beneficial Use Storage Area, there have been no identified changes in the geometry of the Pile that would warrant additional investigation or remedial activities.

Based on our inspection, the CCR Pile has been kept within the limits of the Beneficial Use Storage Area. Because the CCR Pile is actively being used, there is no cover vegetation and is limited only to CCR materials. Additionally, the CCR Pile does change shape based on current operations of the facility but generally stays in the same location.

3.2.2 Volume of CCR (§257.84(b)(2)(ii))

The PCS Beneficial Use Storage Area is approximately 200 feet by 125 feet in footprint. Depending on operations, The CCR Pile changes volume, shape, and location within the area. At the time of inspection the CCR Pile contained approximately 200 cubic yards of CCR and was in an area of 40 feet by 40 feet.

3.2.3 Structural Weaknesses and Disruptive Conditions (§257.84(b)(2)(iii))

After review of available information provided by PCS pertaining to the status and condition of the existing CCR Pile, discussions with PCS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR Pile, as well as conducting the on-site visual inspection of the existing CCR Pile, there have been no identified appearances of an actual or potential structural weakness of the existing CCR Pile that would warrant additional investigation or remedial activities.



Additionally, there were no existing conditions of the CCR Pile that were disrupting or have the potential to disrupt the operation and safety of the existing CCR Pile.

3.2.4 Other Changes Affecting Stability or Operation of Impounding Structure (§257.84(b)(2)(iv))

After review of available information provided by PCS personnel pertaining to the status and condition of the existing CCR Pile, as well as discussions with PCS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR Pile, there have been no other identified changes that have affected the stability or operation of the CCR Pile.



4.0 CERTIFICATION

To meet the requirements of 40 CFR 257.84(b), I Mark W. Loerop hereby certify that I am a licensed professional engineer in the State of Iowa; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in 40 CFR 257.84(b).



By: *Mark Loerop*

Name: MARK LOEROP

Date: JAN 15, 2016

