



Notification of Intent to Initiate Closure of the
Inactive CCR Surface Impoundment

Prepared for Interstate Power and Light Company
Sutherland Generating Station
Marshalltown, IA

Issue Date: December 14, 2015
Issue Purpose: For Use

Prepared by:




J. Ficarek

12/14/2015

Date

Reviewed by:

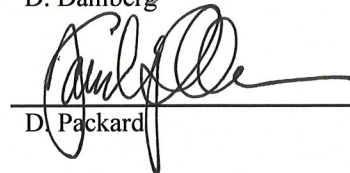


D. Dahlberg

12/14/2015

Date

Approved by:



D. Packard

12/14/2015

Date



55 East Monroe Street
Chicago, IL 60603-5780 USA

Project No. 13391-007

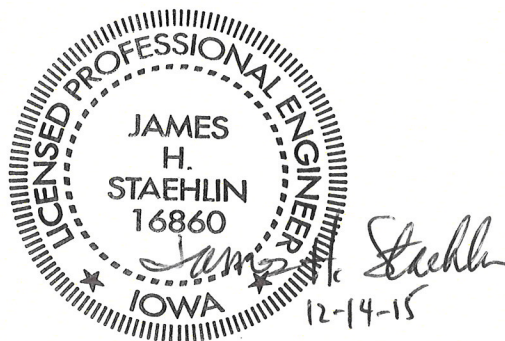
Report No. SL-013127
Revision: 0

LEGAL NOTICE

This report ("Deliverable") was prepared by Sargent & Lundy, L.L.C. ("S&L"), expressly for the sole use of Alliant Energy ("Alliant") in accordance with the agreement between S&L and Alliant. This Deliverable was prepared using the degree of skill and care ordinarily exercised by engineers practicing under similar circumstances: (1) S&L prepared this Deliverable subject to the particular scope limitations, budgetary and time constraints, and business objectives of Alliant; (2) information and data provided by others may not have been independently verified by S&L; and (3) the information and data contained in this Deliverable are time sensitive and changes in the data, applicable codes, standards, and acceptable engineering practices may invalidate the findings of this Deliverable. Any use or reliance upon this Deliverable by third parties shall be at their sole risk.

CERTIFICATION OF REPORT PAGE**NOTIFICATION OF INTENT TO INITIATE CLOSURE OF
INACTIVE CCR SURFACE IMPOUNDMENT
AT SUTHERLAND GENERATING STATION**

I certify that this Notification of Intent was prepared by me or under my direct supervision and that I am a registered professional engineer under the laws of the State of Iowa.

**SEAL(S)**

| Issue: | Date: | Certified by: |
|-----------------|--------------|----------------------|
| For Use, Rev. 0 | 12/14/2015 | James H. Staehlin |

1. Introduction

The Interstate Power and Light Company (IPL) Sutherland Generating Station, located east of Marshalltown, IA, in Marshall County, has one coal combustion residual (CCR) surface impoundment known as the Main Ash Settling Area. The Main Ash Settling Area was commissioned in the late 1950s and was used as a bottom ash settling impoundment until the station's conversion to natural gas in April of 2012. As a result of accumulated CCR, the impoundment was reconfigured into a four-pond system with an area on the north side of the impoundment for stockpiling bottom ash. The four ponds, located entirely within the diked impoundment (i.e., single CCR unit), are known as the Primary (North) Pond, the Primary (South) Pond, the Secondary (Main) Pond, and the Polishing Pond. The station is currently planning to decommission the Main Ash Settling Area as well as dispose of the fly ash pile located south of the Main Ash Settling Area. To comply with the requirements of the USEPA CCR Final Rule (40 CFR 257.50-107) published on April 17, 2015, and amended on July 2, 2015, Alliant Energy, on behalf of the subsidiary IPL, proposes to close the entire Main Ash Settling Area at the Sutherland Generating Station before April 17, 2018, by leaving the CCR in place and providing a cover system that satisfies the performance requirements as stipulated in the CCR Rule and in the Iowa Administrative Code (IAC). Figure 1 provides an annotated aerial photograph of the Sutherland Generating Station which identifies the Main Ash Settling Area, the fly ash pile and several other significant site facilities.

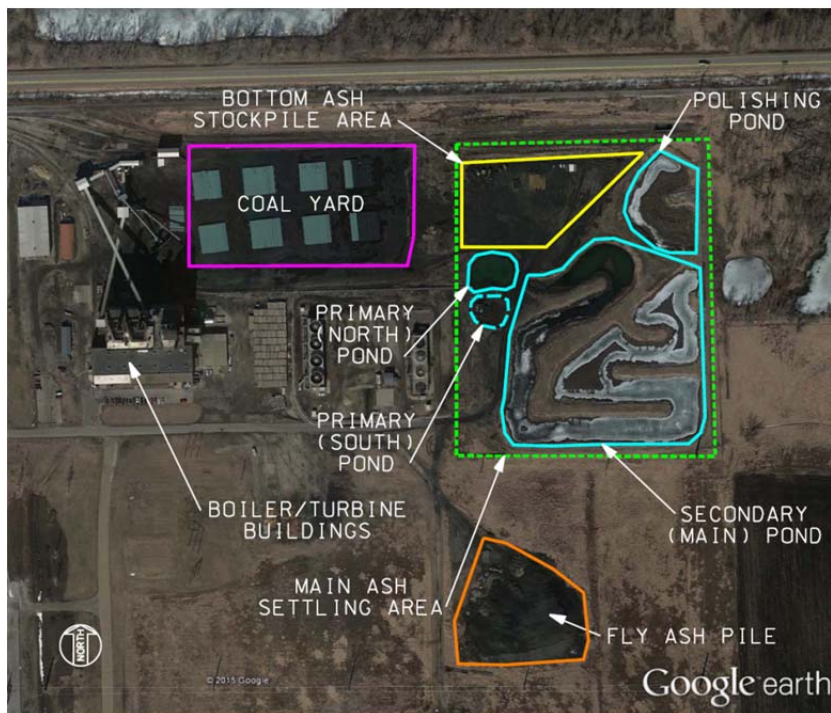


Figure 1 – Location of Sutherland Generating Station's Main Ash Settling Area

2. Inactive Classification per CCR Rule

Due to the presence of CCR within the Main Ash Settling Area, the surface impoundment is subject to the requirements of the CCR Rule. Moreover, since the Main Ash Settling Area no longer receives CCR yet still contains both CCR and liquids, it is classified as an inactive CCR surface impoundment. The CCR Rule addresses “inactive” surface impoundments independently from impoundments classified as “existing.” The definition for inactive CCR surface impoundments, as defined by §257.53 of the CCR Rule, is listed below for reference.

- *Inactive CCR surface impoundment means a CCR surface impoundment that no longer receives CCR on or after October 19, 2015 and still contains both CCR and liquids on or after October 19, 2015.*

The CCR Rule provides specific closure requirements for inactive CCR surface impoundments (§257.100). IPL intends to close the Main Ash Settling Area at the Sutherland Generating Station pursuant to §257.100(b) of the CCR Rule.

3. Intended Closure Approach

Per §257.100(b) of the CCR Rule, there are two methods by which an owner or operator may close an inactive CCR surface impoundment. The impoundment may be closed by leaving the CCR in place and covering with a cap that satisfies several performance requirements. Alternatively, the impoundment may be closed by complete removal of CCR, otherwise known as a “clean closure.” Given the size of the Main Ash Settling Area (approximately 13.2 acres) and the amount of CCR disposed of in the Main Ash Settling Area and piled on-site (estimated to be approximately 234,000 cubic yards), IPL intends to close the Main Ash Settling Area, and thereby close the four interior ponds as well as the bottom ash and fly ash stockpiles, by consolidating all the CCR material on-site within the Main Ash Settling Area, leaving the CCR in place and providing the required cover system that adheres to state and federal requirements.

Closure of the Main Ash Settling Area will include the following tasks:

- Dewatering of the four interior ponds,
- Reclaim fill material from elsewhere on-site and transport to the Main Ash Settling Area (fill material includes stockpiled fly ash and may include coal impacted soils from the Coal Yard),
- Re-grading of the Bottom Ash Stock Pile Area,
- Relocation of incidental quantities of bottom ash stockpiled along the west perimeter containment dike into the area to be closed,
- Grading of borrow fill material to establish minimum slopes to promote positive drainage of stormwater,
- Provide final cover system (“Cap”) in accordance with State and Federal regulations to control, minimize, or eliminate post-closure infiltration of liquids into the CCR below, and
- Seed final cover with native vegetation to minimize erosion.

The proposed final cover shall consist of a base layer of appropriate low-permeability material ($<10^{-5}$ cm/s) having a minimum thickness of two feet, overlaid with 18 inches of earthen material (infiltration layer), which in turn is overlaid with six inches of topsoil that shall be seeded with native vegetation.

4. Schedule

Closure of the Main Ash Settling Area is anticipated to be commenced, performed and completed according to the following schedule.

| Task Description | Expected Task Completion |
|---|---------------------------------|
| Complete Site Topographic and Bathymetric Survey | 1 st Quarter of 2016 |
| Permitting, Engineering and Contract Development | 2 nd Quarter of 2016 |
| Execute Contract with a General Work Contractor | 3 rd Quarter of 2016 |
| Dewatering of the Inactive CCR Surface Impoundment | 2 nd Quarter of 2017 |
| Placement and Grading of Borrow Fill to Final Slopes | 3 rd Quarter of 2017 |
| Provide Final Cover System (“Cap”) and Seed with Native Vegetation | 3 rd Quarter of 2017 |
| Certification and Documentation of Closure of the CCR Surface Impoundment | 4 th Quarter of 2017 |

5. Certifications

It is S&L’s opinion that the proposed final cover as described herein meets the design requirements specified by the CCR Rule §257.100(3)(i) and the IAC.

Based on the size of the Sutherland Generating Station Main Ash Settling Area, the selected closure approach and the proposed schedule above, it is S&L’s opinion that closure of the CCR surface impoundment under §257.100(b)(1) through (4) is technically feasible within the timeframe specified in §257.100(b) with closure complete before April 17, 2018.