



Golden Valley Electric Association

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## **Summary of Liner Construction Coal Combustion Residual Rule Compliance**

Facility  
Healy Power Plant  
2.5 Mile Healy Spur Road  
Healy, Alaska

October 2016

## 1.0 CERTIFICATION AND REVISION LOG

I hereby certify, as a Professional Engineer in the State of Alaska, that this Surface Impoundment Liner Assessment Report was prepared by myself and that I am familiar with the provisions of Title 40 of the Code of Federal Regulations Parts 257 and 261 and the final rule to regulate the disposal of Coal Combustion Residuals (CCR) as a solid waste. I certify that the existing CCR surface impoundment at the Healy Power Plant is classified as an existing, unlined CCR surface impoundment as currently defined in section 40 CFR Part 257.71.

  
Signature

11/16/16  
Date

Naomi J. Morton Knight, P.E.



### Revision Log

Issue No.	Date	Description	Prepared By
1	October 2016	Initial CCR Impoundment Liner Assessment	GVEA

## 2.0 Introduction

On April 17, 2015 the final coal Combustion Residual Rule (CCR Rule) was issued. The CCR rule regulates disposal of coal combustion residual materials generated at coal-fired power plants as solid waste under subtitle D of the Resource Conservation and Recovery Act (RCRA).

Healy Power Plant is an electric power generating facility. It is located in a rural setting on approximately 65 acres of land along the eastern bank of the Nenana River where the Healy Spur Road crosses the Nenana River in Healy, Alaska (Latitude: 63° 51' 30" Longitude: 148° 56' 45"; SW ¼ SW ¼ Section 21, T 12S, R 7W, Fairbanks Meridian). The main access road to Healy Power Plant is approximately 550 feet east from the Nenana River along the Healy Spur Road (Figure 1). Healy Power Plant is located in Healy Creek-Nenana River drainage basin, approximately 0.5 mile north from the confluence of the Nenana River and Healy Creek.

The existing coal ash handling system for Unit 1 consists of a primary settling pond (Ash Pond), a Recirculating Pond, an Emergency Overflow Pond, and an Ash Drying Area. The Ash Pond, the Recirculating Pond, and the Emergency Overflow Pond will be referred to collectively as the ash settling ponds. The ash settling ponds were constructed in the 1990's and, along with the Ash Drying Area, make up the four CCR units regulated under the CCR Rule. The purpose of this document is to document the liner construction for existing surface impoundments per 40 Code of Federal Regulations (CFR) Part 257.71.

### 3.0 Liner Construction

An existing surface impoundment is classified as lined if the liner was constructed with any of the following specifications:

1. A liner consisting of a minimum of two feet of compacted soil with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  centimeters per second.
2. A composite liner that meets the requirements of 40 CFR Part 257.70(b).
3. An alternative composite liner that meets the requirements of 40 CFR Part 257.70(c).

The Healy Power Plant ash ponds were constructed in the 1990's and were not designed or constructed with liners. Therefore, the existing CCR surface impoundments at the Healy Power Plant are classified as existing CCR surface impoundments per 40 CFR Part 257.71(a)(3)(i)