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Annual CCR Landfill Inspection Coal Combustion Residual Rule Compliance

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

December 2020

1.0 CERTIFICATION AND REVISION LOG

I hereby certify, as a Professional Engineer in the State of Alaska, that the information in the document was assembled by me or those under my direct supervision and that to the best of my knowledge and belief, the information is true, complete, and accurate.

Naomi J. Morton Knight 12/22/2020
Signature Date

Naomi J. Morton Knight, P.E.



Revision Log			
Issue No.	Date	Description	Prepared By

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 are collectively referred to as the ash settling ponds. The CCR landfill subject to this report consists of the Ash Drying Area and a dewatering trench and must have an annual inspection performed per 40 CFR Part 257.84.

3.0 Annual Inspection Report

The annual inspection and accompanying report is performed to comply with 40 CFR 257.84(b), *Annual inspections by a qualified professional engineer* as outlined below.

§257.84 Inspection requirements for CCR landfills.

(b) *Annual inspections by a qualified professional engineer.*

- (1) Existing and new CCR landfills and any lateral expansion of a CCR landfill must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include:
 - (i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., the results of inspections by a qualified person, and results of previous annual inspections); and
 - (ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.
- (2) *Inspection report.* The qualified professional engineer must prepare a report following each inspection that addresses the following:
 - (i) Any changes in geometry of the structure since the previous annual inspection;
 - (ii) The approximate volume of CCR contained in the unit at the time of the inspection;
 - (iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and
 - (iv) Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.

The CCR landfill was inspected on December 18, 2020 by Naomi J. Morton Knight, GVEA's Environmental Officer, and a review of records and weekly inspection reports prepared by qualified personnel was conducted with the following results.

§257.84(b)(2)(i) Changes in Geometry. The geometry of the landfill site is similar to that observed in all previous annual inspections, there was slightly less inventory

§257.84(b)(2)(ii) Approximate Volume of CCR Material. The footprint of the drying area and the dewatering trench at the time of inspection covered approximately 0.75 acres and contained approximately 10,000 cy of CCR Material, slightly less than observed during the 2019 annual inspection.

§257.84(b)(2)(iii) Structural Integrity. No structural weaknesses were visible in or around the CCR landfill unit.

§257.84(b)(2)(iv) *Other Changes*. There were no observed issues that would indicate problems with stability or operation, and no significant changes in condition from 2015 or subsequent annual inspections.

4.0 Summary

This inspection was the fourth annual inspection of this CCR landfill unit as required by 40 CFR Part 257.84. At the time of the inspection the landfill contained an estimated 10,000 cy of CCR material and showed no indication of malfunction or weakness. There were no other conditions that would interfere with the landfill's safe operation.

5.0 Inspection and Pictures

See attached

MONTHLY OPERATION INSPECTION FORM
ASH DRYING AREA
 Healy Power Plant

GENERAL INFORMATION

INSPECTOR NAME:		DATE OF INSPECTION:	12/18/2020
	N. MORTON K.	START / END TIMES:	12:45 : _____

WEATHER INFORMATION

Clear Cloudy Rain Fog Snow High Winds Other _____

Temperature (°F) -17 Wind Spd (mph): 1 mph Wind Direction (° from N): NNE

SUMMARY OF CURRENT ACTIVITIES

Description include number of stockpiles present:
SINGLE PILE, AREA

COMPONENT	PROBLEMS TO LOOK FOR (check box to indicate a problem)	MAINTENANCE, REPAIR OR REPLACEMENT	CORRECTIVE ACTION NEEDED AND NOTES Identify necessary maintenance or repair of component
Stockpile(s)	<input type="checkbox"/> Surface water not draining away from stockpiles <input type="checkbox"/> Dewatered stockpiles that not loaded and disposed of in appropriate timeframe (i.e., inactive) are <u>not</u> covered <input type="checkbox"/> Placed in drainage path/concentrated surface water flow <input type="checkbox"/> Dust observed from stockpile moving offsite due to wind	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No _____	<u>STOCKPILE VOLUME LOW, TRUCK FULL / SNOW COVERED.</u>
Truck Access	<input type="checkbox"/> Off site tracking of ash/sediment/debris onto roadway <input type="checkbox"/> Loaded trucks not covered (NA if trucks not present) <input type="checkbox"/> Excess spillage of coal ash or debris	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No _____	<u>TRUCK ACCESS CLEAR</u>
Surface Area	<input type="checkbox"/> Poor housekeeping (i.e., spillage, debris, unorganized) <input type="checkbox"/> Depressions or low lying area causing ponding <input type="checkbox"/> Sediment-laden waters are uncontrolled (i.e., leaving area) or entering waterways <input type="checkbox"/> Snow placed near drainage area or located outside of contained area <input type="checkbox"/> Excess accumulation of coal ash / sediment / debris along fence line or beyond the area boundary	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No _____	

Major adverse changes to the components could cause instability and should be reported for further evaluation. Adverse conditions noted should normally be described (extent, location, volume, etc.) in the space provide and attached sheet, as needed.

NOTES

Use this space for any additional notes or observations from the inspection

SEE ATTACHED

Attach photographs or note the electronic file name and location:



Looking east, ash drying trench and pile to the left. Edge of pond to the right.



Looking west at the drying trench and pile.



Looking northwest, far east edge of ash pile and looking at the coal pile.