



Memorandum

To: Roger Clarke
From: Jeremy Gacnik
Subject: **Disposal of Coal Combustion Residuals from Electric Utilities
Closure Feasibility Certification**
Date: December 1, 2015
Project: Xcel Energy Black Dog Generating Station

The Environmental Protection Agency (EPA) published a final rule to regulate the disposal of coal combustion residuals (CCR) as solid waste under subtitle D of the Resource Conservation and Recovery Act (RCRA), 40 CFR Parts 257 and 261 (Rule). Per the Rule, if a CCR surface impoundment no longer receives CCR on or after October 19, 2015 and still contains both CCR and liquids on that date, it is classified as an inactive CCR surface impoundment. Three CCR surface impoundments, Ash Ponds 1 through 3, are located at the Black Dog Generating Station in Burnsville, MN. CCR discharges to the impoundments were ceased prior to October 19, 2015. As a result and in compliance with the Rule, the impoundments at the Black Dog Generating Station are classified as inactive CCR surface impoundments.

Xcel Energy proposes to close the CCR surface impoundments by leaving CCR in place, per Rule section 257.100. Per the Rule, written certification from a qualified professional engineer must be placed in the facility's operating record no later than December 17, 2015, stating that closure of the CCR surface impoundments is technically feasible prior to April 17, 2018.

Table 1 below summarizes the proposed closure schedule for Ash Ponds 1-3. The remainder of 2015 will be utilized to finalize the dredge and dewatering design, including development of drawings and specifications for use in construction. Contractor bidding, selection and permitting will be completed in the first quarter of 2016. Grading and pond closure design approval is anticipated from the City of Burnsville and the Minnesota Pollution Control Agency's NPDES department during the permitting phases.

Once weather permits, construction of the temporary CCR dewatering pad will begin in the spring/summer of 2016. The temporary dewatering pad will have an impervious liner (asphalt, concrete, etc.) per the Rule. Following construction of the dewatering pad, dredging will commence on the CCR surface impoundments (ash ponds 1-3). It is anticipated that the ponds will be hydraulically dredged in sequence. Approximately 30,000 cubic yards of CCR material (operational ash) will be removed from the ponds placed under the authority of NPDES Permit MN0000876 as part of the closure process (as required

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by the NPDES permit). The dredged CCR Material will be managed and dewatered on the adjacent dewatering pad. It is anticipated that an amendment will be added to the dredged material to aid in the dewatering process. The dewatered ash will be hauled off-site to an approved facility permitted to accept the waste.

Once the operational ash is dredged from the impoundments, the liquid in the impoundments will be drained in preparation of construction of the final cover. The impoundments are anticipated to be drained in the spring of 2017. Approximately 100,000 cubic yards of clean fill and cover material will be imported to the site and placed within the dewatered impoundments. The imported material includes the general fill to bring the dredged pond elevation to finished grade, the barrier layer (to limit infiltration) and the topsoil material. Prior to placement of the topsoil, the dewatering pad will be removed and site grading restored. To complete the impoundment closure, the disturbed area will be seeded and mulched to prevent soil erosion.

Table 1: Closure Schedule

Year	Task	Duration (weeks)
2015	Dredge and Dewatering Design	2
	Construction Plans and Specifications	2
	2015 Subtotal	4
2016	Bidding	8
	Contractor Selection	4
	Permitting	4
	Pre-Construction Meeting	1
	Construction Impervious Dewatering Pad	3
	Dredge Ash Pond 1	3
	Dredge Ash Pond 2	3
	Dredge Ash Pond 3	3
2016 Subtotal	29	
2017	Drain/Dewater Ash Pond 1-3	4
	Fill Ash Ponds 1-3	14
	Construct Soil Cover Barrier Layer	2
	Remove Dewatering Pad	1
	Place Topsoil	1
	Seed and Mulch	1
	2017 Subtotal	23

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Closure of the inactive CCR surface impoundments located at the Xcel Energy Black Dog Generating Station is technically feasible as specified in the Rule.

Professional Engineer Certification:

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature:  _____

Typed or Printed Name: _____ Jeremy Gacnik _____

Date: 12/1/15 License Number: 49292