



NCDEQ Coal Ash Impoundment Closure Plan Decision

Mayo Steam Station

April 29, 2020



NCDEQ Coal Ash Impoundment Closure Plan Decision – Mayo Steam Station

On December 31, 2019, Duke Energy submitted its proposed Closure Plan for the Mayo Steam Station (“Mayo”) as required by the Coal Ash Management Act (“CAMA”). The North Carolina Department of Environmental Quality (“NCDEQ”) conducted a thorough evaluation of this proposed Closure Plan. In addition to its own evaluation, NCDEQ also held a public hearing, circulated the proposed closure plan for public comment, and analyzed site specific information provided by Duke Energy and the public.¹ Based on this evaluation and the corrective actions that will complement closure, NCDEQ finds that the Closure Plan is protective of public health, safety, and welfare; the environment; and natural resources and otherwise complies with the requirements of CAMA. Consequently, NCDEQ hereby approves the Closure Plan for Mayo.

Background:

CAMA sets forth a process for closure of coal combustion residuals (“CCR”) impoundments in North Carolina. Based on certain statutory factors, impoundments must be classified low, intermediate or high risk. N.C. Gen. Stat. § 130A-309.213. For impoundments classified as “low risk,” such as the CCR impoundment at Mayo, NCDEQ must elect one of three closure options: (1) excavation; (2) cap-in-place; or (3) closure under the federal CCR Rule. N.C. Gen. Stat. § 130A-309.214(a). Prior to making an election on the closure methodology at Mayo,, NCDEQ received public input on these closure options. In January 2019, NCDEQ held a public meeting near Mayo, and took public comment into February 2019 regarding the closure options considered for the impoundment.

On April 1, 2019, NCDEQ elected excavation as the closure option for the CCR impoundment at Mayo (“Mayo Closure Determination”) “because removing the coal ash from the unlined CCR surface impoundment at Mayo is more protective than leaving the material in place.” [Mayo Closure Determination](#), p. 1. NCDEQ determined that excavation “is the most appropriate closure method because removing the primary source of groundwater contamination will reduce uncertainty and allow for flexibility in the deployment of future remedial measures.” Mayo Closure Determination, p. 1.

Duke Energy challenged NCDEQ’s Mayo Closure Determination along with the closure determinations for five other Duke Energy facilities in the North Carolina Office of Administrative Hearings. After extensive discovery, Duke Energy and NCDEQ reached a settlement and executed an agreement to resolve that litigation on December 31, 2019 (“Settlement Agreement”). On February 5, 2020, the Wake County Superior Court entered a Consent Order consistent with the terms of the Settlement Agreement (“Consent Order”). Pursuant to the terms of the Settlement Agreement and Consent Order, Duke Energy agreed to excavate the coal ash in the CCR

¹ The Hearing Officer’s Report is attached as Attachment 1. Public comments and NCDEQ’s responses are included in the Hearing Officer’s Report. Additional information reviewed by NCDEQ includes, among other things, environmental data contained in the comprehensive site assessment and proposed corrective action plan, permit requirements, the closure options analysis, ongoing groundwater monitoring, groundwater modeling provided by Duke Energy, NCDEQ’s Closure Determination for Mayo, and other data relevant to the CAMA requirements.

impoundment at Mayo to a lined onsite landfill. The Closure Plan for Mayo complies with the terms of the Settlement Agreement and Consent Order.

Public process for the proposed Closure Plan:

CAMA required that NCDEQ put the proposed Closure Plan to public notice and conduct a public hearing to explain the Plan. NCDEQ held the public hearing for the Mayo Closure Plan on February 10, 2020 and provided a public comment period until March 2, 2020. During that hearing, one individual made comments on the Closure Plan. Additionally, NCDEQ received four written comments regarding the Closure Plan during the comment period. All of the commenters expressed support for excavating and relocating coal ash into lined landfills. The comments included some concerns for worker safety, the need for testing to ensure that no additional contamination occurs and requests for NCDEQ to make sure that the new landfill is installed correctly. A discussion of the substantive concerns raised in these comments is included as part of the hearing officer's report.

Evaluation of Closure Plan:

CAMA establishes criteria for NCDEQ's evaluation of Closure Plans. Specifically, CAMA provides that NCDEQ "shall disapprove a proposed Coal Combustion Residuals Surface Impoundment Closure Plan unless the Department finds that the Closure Plan is protective of public health, safety, and welfare; the environment; and natural resources and otherwise complies with the requirements of this Part." N.C. Gen. Stat. § 130A-309-214(c). CAMA sets forth a list of required contents for Closure Plans, including engineering drawings, schematics, and specifications for the proposed Closure Plan, a description of the provisions for the final disposition of the coal combustion residuals, groundwater modeling, and a description of the plan for post-closure monitoring and care for an impoundment for a minimum of 30 years.

NCDEQ finds that under CAMA Duke Energy's proposed Closure Plan for Mayo is protective of public health, safety, welfare, the environment, and natural resources. In the Closure Plan, Duke Energy proposes to excavate the coal ash in the CCR impoundment, which NCDEQ has determined is the most environmentally protective closure option. Excavation of the coal ash will address the primary contaminant source that otherwise could continue to leach contaminants into groundwater. Mayo Closure Determination, p. 1.

Since the coal ash will be excavated to a lined onsite landfill, the need to transport coal ash over public roads or by rail car will be minimized. Such onsite disposal also obviates the need to locate additional communities to accept coal ash. Consequently, NCDEQ finds that disposal of coal ash to an onsite lined landfill is protective of public health and safety and significantly diminishes the environmental impact of excavation.

NCDEQ further finds that Duke Energy's proposed Closure Plan for Mayo complies with the other requirements of CAMA. Specifically, NCDEQ has determined that Duke Energy has adequately included all required elements of a Closure Plan (either directly or through incorporation by reference of the proposed Corrective Action Plan for Mayo),² including the following:

² Note that this document does not constitute an approval of the proposed corrective action plan for Mayo or any element thereof. NCDEQ will review and take action on that proposal in a separate decision.

- site history and history of site operations;
- site maps;
- results of a hydrogeologic, geologic, and geotechnical investigation of the site;
- results of groundwater modeling at the site;
- engineering drawings, schematics, and specifications for the proposed Closure Plan;
- a description of the construction quality assurance and quality control program to be implemented in conjunction with the Closure Plan;
- a description of the provisions for disposal of wastewater and management of stormwater and the plan for obtaining all required permits;
- a list of required permits;
- a description of the provisions for the final disposition of the coal combustion residuals;
- a description of the plan for post-closure monitoring and care for an impoundment for a minimum of 30 years;
- an estimate of the milestone dates for all activities related to closure and post-closure;
- projected costs of assessment, corrective action, closure, and post-closure care; and
- a description of the anticipated future use of the site and the necessity for the implementation of institutional controls following closure.

N.C. Gen. Stat. § 130A-309.214(a)(4).

Conclusion:

NCDEQ approves the proposed Closure Plan for Mayo based on its finding that this Plan “is protective of public health, safety, and welfare; the environment; and natural resources and otherwise complies with the requirements of CAMA.”